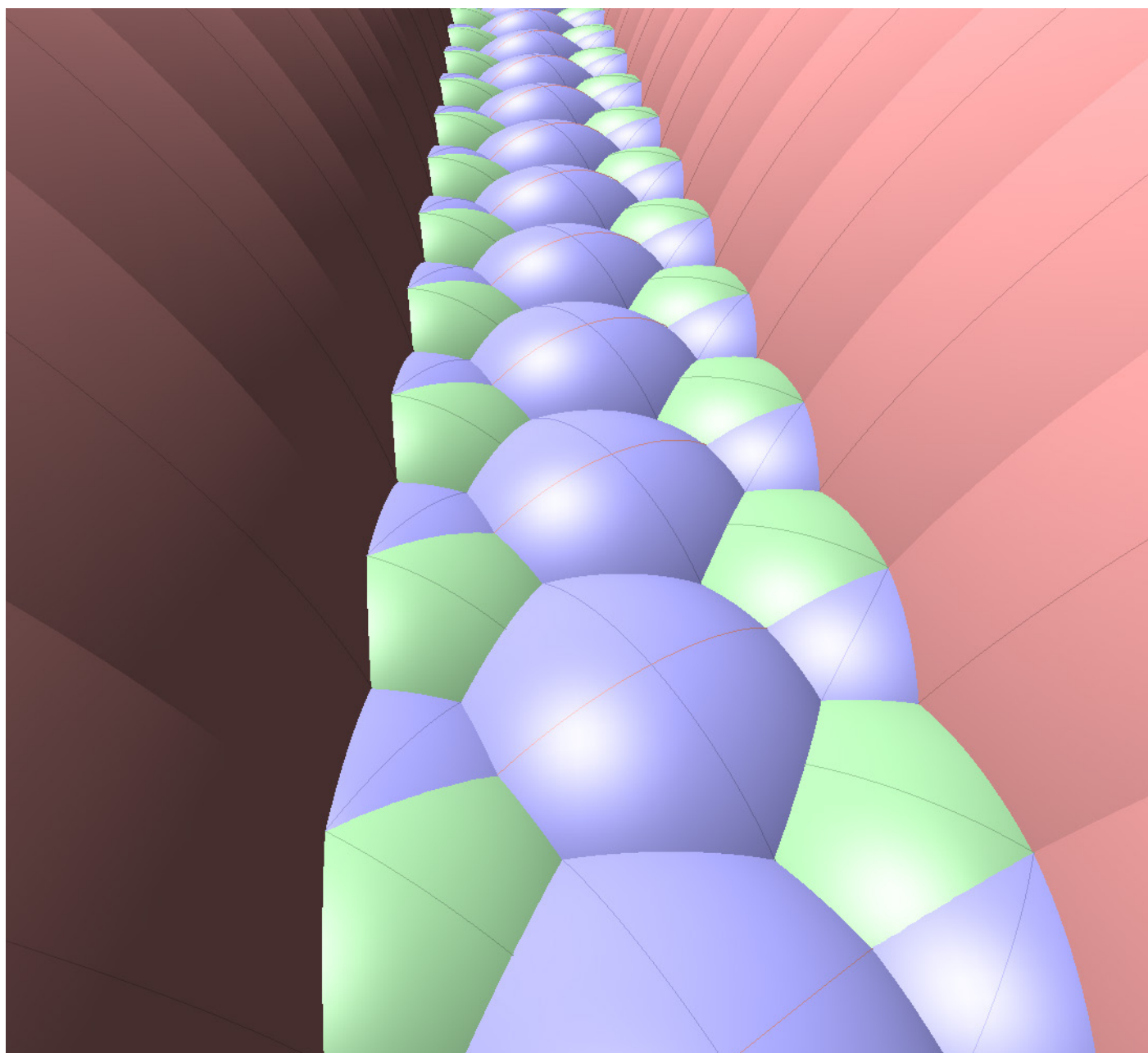




LONDON
MATHEMATICAL
SOCIETY
EST. 1865



London Mathematical Society

Report of the Trustees for the period

1 August 2017 - 31 July 2018

Cover image created by Masaaki Wada, showing the Ford isometric hemispheres for a cone manifold outside the Riley slice of Schottky space.

INTRODUCTION

In 2017-18 the Society has continued its work to support its membership, UK mathematics and UK mathematicians.

Membership continues to increase and diversify and the Society now has members from 65 countries around the world. This year a new-look Newsletter was launched to not only keep members up-to-date with the Society's activities but with improved and increased mathematical content.

The Society continues to prioritise early career researchers and to invest resources in this crucial stage of the people pipeline. The Early Career Research Committee met for the first time in 2017-18 and will provide a strategic overview of the various schemes and activities that the Society offers for undergraduate students through to post-doctoral researchers.

The Society provides a crucial role in the mathematics funding landscape in the UK through its research grant schemes. This year over £400,000 was awarded via its core grant schemes alone. The grant schemes provide vital support for mathematicians at a grassroots level, allowing for UK mathematicians to carry out research in pairs, organise conferences and workshops and to invite collaborators to the UK, making available opportunities for exchange of ideas as well supporting research and career progression.

The Society continues to work collaboratively through the Council for the Mathematical Sciences (CMS) and is actively involved in discussions regarding the recommendations from the Bond Review Report, *The Era of Mathematics: An Independent Review of Knowledge Exchange in the Mathematical Sciences*, and the exciting possibilities that these could bring for UK mathematics. The Society has been working to gather

in various data across the year, including an update of the 2012 survey benchmarking gender balance in UK mathematical sciences departments, as part of its role in advocating on behalf of the mathematical sciences. The Society continues to work to ensure that overarching policy support and investment in UK mathematics is maintained, if not improved, to ensure the future health of the discipline, and has provided input into various consultations and exercises this year.

The review of the Society's publications continues with new Aims and Objectives now agreed, which focus on the provision of services for authors and readers, leadership and representation within UK mathematics publishing, and sustainability of the Society's income from publishing. The journals and books that the Society publishes fulfil two vital objectives for the Society: in publishing and disseminating quality mathematics, but also in providing an income which is then reinvested directly into UK mathematics, and without which many of the Society's grant schemes, meetings, workshops, training and advocacy work and other charitable activities would not be funded.

The Society continues to actively monitor its governance to ensure that the systems underpinning the running of the charity are the most appropriate to help it meet its charitable objectives. The review of the Society's Standing Orders is ongoing. In 2017-18 the Society has been invested in ensuring that General Data Protection Regulation (GDPR) are met.

This report provides an overview of the full range of activities undertaken by the Society in meeting its charitable objectives during 2017-18. Further information on the Society's work can be found on its website: lms.ac.uk.

MISSION

The London Mathematical Society has, since 1865, been the UK learned society for the dissemination and promotion of mathematical knowledge. Our mission is to advance mathematics through our members and the broader scientific community worldwide.

The Membership

The membership is the core of the London Mathematical Society. Mathematicians drive the Society, and volunteers' contributions are vital to the Society in defining its priorities, running its activities and achieving its objectives. The Society at present has 26 committees with 228 volunteer committee roles and other individual roles, as well as 32 volunteer roles representing the Society on external committees. A large cross-section of the mathematical community is directly involved in the work of the Society, engaging widely with other organisations across the UK and beyond. The Society's global reach is reflected in its membership, with over 20% of LMS members based outside the UK.

The Society was delighted to elect Professor Maria J. Esteban (CNRS and University Paris-Dauphine) and Professor Peter Scholze (University of Bonn) as Honorary Members in 2018.

Communications and Engagement

Communication with members is of key importance in ensuring that the Society keeps abreast of the most interesting and exciting developments in mathematics and the mathematicians associated with this work. The Society acknowledges achievements in mathematics through its prize-giving and in those it invites to become Honorary Members, as well as those who are invited to give lectures. Effective communications ensure that the Society can identify the current concerns within the community and can work to help address them. The network of LMS Representatives across UK universities is central to these communications. As of 2017-18 the Society has

58 LMS Representatives with whom it communicates via monthly emails and an annual LMS Reps Day in London. The LMS actively seeks to recruit more Representatives to ensure that all UK mathematical sciences departments are directly engaged with the Society through a Representative. A network of Good Practice Scheme (GPS) Representatives also provides contact points between GPS Supporter departments and the Society to ensure full engagement with and communication about the Good Practice Scheme and matters of good practice in gender equality. There are currently 61 GPS Representatives at departments across the UK.

The regular mid-month LMS e-Update keeps members informed of upcoming events and grant deadlines as well as providing a list of mathematical meetings and conferences that have received Society grants. The Society hosts a number of 'blogs' on a variety of subjects on its website in order to provide opportunities for dialogue with and between its members and the broader mathematical and scientific community, these are: Members; LMS Departmental Representatives; Open Access; Elections; Infinitesimals; De Morgan Forum; Research Excellence Framework.

In 2017-18, the Society began a series of exchange articles published in the Newsletter with its reciprocal societies to raise awareness of LMS membership around the world and to highlight to LMS members the possibility of joining these societies as Reciprocity members.

The LMS has three very active Twitter accounts (@LondMathSoc, @womeninmaths and @DeMorganHouse) with over 17,600 followers as well as a dedicated LinkedIn Group for UK women in

mathematics with 130 members.

The Society's Newsletter functions as a central resource for mathematical and Society news and events. A new-look Newsletter was launched in autumn 2017. The refreshed Newsletter includes more mathematical feature articles as well as other new types of content. The refresh brings new opportunities for members, and the mathematical community as a whole, to be involved in the Society. Contributions are welcomed from members and non-members alike and include, for example, feature

articles and micro-theses. Members are very much encouraged to submit ideas for Newsletter articles and features.

Over the past few years, the Society has been developing its online engagement with members so that new members can join online and current members can manage and renew their subscriptions via their online LMS membership record. Online grant application is a new feature with different grants being added to this functionality on an ongoing basis.

2017-18 highlights

- 3,135 members of the Society.
- 401 new members in 2017-18 including 157 new female members.
- Professor Maria J. Esteban and Professor Peter Scholze elected Honorary Members.
- Global membership with members from over 65 countries.
- Series of exchange articles with reciprocal societies published in the LMS Newsletter.

2018-19 plans

- Explore ways to encourage members to donate to the Society.
- Continue to develop its online engagement with members.
- Continue to strive for improved equality, diversity and inclusion in its membership and activities.

SUPPORTING MATHEMATICS RESEARCH

Objective: to advance mathematical knowledge by enabling mathematicians to undertake research and collaboration, and by supporting them in their efforts.

The Society's grants schemes are at the centre of the Society's work to advance mathematical knowledge and support mathematicians in their research and collaborations. There are 25 grant schemes in operation (for a full list see Annex 5) covering various activities ranging from facilitating research conferences, to small grants supporting education and teacher continuing professional development, to providing funds to help with caring responsibilities and career breaks, and developing international mentoring opportunities. The Society also supports research by maintaining its Library, with various collections available for researchers' use, and by awarding a number of prizes annually to recognise mathematical research excellence.

Grants

The Society continues to award smaller grants relative to funding available elsewhere, and in doing so fulfils a crucial role in the UK mathematical funding landscape. The Society's grants can offer mathematicians the opportunity to organise much-needed smaller-scale conferences, work collaboratively through short visits, and enable the development of research partnerships, all of which significantly contribute to career development and impact on UK mathematical research at its roots.

To ensure that the wider mathematical community is aware of the funding available from the Society, there are ongoing efforts to promote grant schemes as widely as possible. Advertising grants is achieved through the LMS Representatives network and via the Society's Newsletter, e-updates, website and social media accounts; as a result there has been a continuous increase in demand for financial support

year on year. The Society typically receives between 230 and 250 applications a year for research grant schemes 1-5 and 8-9. In particular, there has been a marked increase in applications for the financial aid to support conference grants (Scheme 1), as well as a steady increase in the applications to support collaborative research (Schemes 3 and 4 in particular).

Through its core research grant schemes the Society has continued to provide support to many mathematicians and their research. In 2017-18 the Society awarded a total of £401,355 through 182 grants via its core grant schemes (Schemes 1-5 and 8-9). The Society supported 79% of all research grants applications received under these grant schemes. As part of the Society's review of its committees and strategic refocusing of activities, the awarding of research grants (Schemes 1-5, 8 and 9) is now undertaken by the Research Grants Committee (Schemes 1-5) and by the Early Career Research Committee (Schemes 8-9).

International schemes

As well as supporting UK-based mathematics, the Society also supports mathematical activities on an international level. In 2017-18, a total of £6,000 was awarded in three grants under the Society's Scheme supporting postgraduate attendance to conferences in Africa, organised by the African Mathematics Millennium Science Initiative (AMMSI).

The current partnerships under the Mentoring African Research in Mathematics (MARM) programme continued this year. MARM operates in collaboration with the African Mathematics Millennium Science

Initiative (AMMSI), using LMS funding combined with funding from the International Mathematical Union Commission for Developing Countries (IMU CDC). The programme aims to slow the academic 'brain-drain' in Africa, in which talented mathematicians often move abroad due to lack of opportunity at home, thus eroding the mathematics people pipeline within the continent. In 2015-16 a fifth round of the programme was launched and, since then, four new partnerships have been created. Including the current partnerships, this means that 21 awards have been made under the programme: in Cameroon, Congo, Ethiopia, Ghana, Côte d'Ivoire, Kenya, Malawi, Morocco, Nigeria, Rwanda, South Africa, Tanzania and Uganda. From a relatively low-level investment the outcomes of MARM have been substantial, having an effect on the next generation of African mathematicians, improving and enhancing academic curricula, supervising PhD study and leveraging further funding into African institutions, amongst many other achievements. The programme continues to inspire a high application rate from both African institutions and potential European partners and the Society hopes that funding for the scheme will continue into the future, for the benefit of mathematics across the two continents.

Prizes

The Society awarded a number of LMS Prizes this year, as well as the IMA-LMS Christopher Zeeman Medal. The Pólya Prize, the highest LMS prize made this year, was awarded to Professor Karen Vogtmann. The Zeeman Medal was awarded to Dr Hannah Fry, in recognition of her sustained and distinguished record of communicating mathematics to the public. The Society extends warmest congratulations to all of its prize winners.

Library

The Society's Library is housed at University College London (UCL) to ensure accessibility to a wide audience. The Library Committee meets annually with representatives from the Science Library at UCL to review the Society's 105 international journal exchange agreements, and to review the services

offered by UCL Library to members of the Society. This year two Library Placement Students were recruited as part of ongoing work to make the Society's archives more accessible online, working particularly on creating item descriptions of the Society's collection of Council Minute Books and Meetings Minute Books. The Society undertook three digitisation projects; a comprehensive digitisation of the LMS Members' Book, the complete digitisation of the T.A. Hirst Correspondence and two more Minute Books. Further work has also taken place on the development and promotion of the Philippa Fawcett Collection. The Society houses the Plücker Model Collection; a collection of 14 boxwood models, which are normally on display at De Morgan House. The Society has worked with the De Morgan Foundation by loaning material, including four Plücker Models, letters from Sophia De Morgan and a photographic portrait of Augustus De Morgan, to the Foundation's Exhibition *Sublime Symmetry: The Mathematics Behind William De Morgan's Ceramic Designs*. The exhibition is on display from May-October 2018 at the Guildhall Art Gallery in the City of London.

Computer Science

This year's BCS-FACS (BCS- Formal Aspects of Computing Science) Evening Seminar, held in collaboration with the FACS Specialist Group, will take place on 1 November 2018. The speaker will be Professor Bill Roscoe (Oxford). Since 2005, the Society has funded the costs of an overseas speaker at the British Colloquium for Theoretical Computer Science (BCTCS). In 2018, the LMS-sponsored Keynote Speaker was Professor John Hopcroft (Cornell University, USA) at the event held at Royal Holloway, University of London. In collaboration with the Smith Institute, the LMS Computer Science Committee is continuing its work in commissioning further Knowledge Transfer Papers. The LMS-Knowledge Transfer Network (KTN) Knowledge Transfer Reports are an initiative coordinated jointly by the Industrial Mathematics Knowledge Transfer Network (IM-KTN) and the Society. The reports are produced as an occasional series, each one addressing an area where mathematics and computing have come together to provide

significant new capability that is on the cusp of mainstream industrial uptake. They are written by senior researchers in each chosen area, for a mixed audience in business and government. The reports are designed to influence managers and decision-makers by raising awareness of new tools and techniques, in a format that allows them to assess rapidly the potential for impact and exploitation in their own fields, alongside information about potential

collaborators and suppliers.

In addition, the Computer Science Committee runs a grant scheme, Scheme 7. This is to facilitate collaborations in research at the interface of mathematics and computer science. In 2017-18 a total of five grants worth £2,194 were awarded.

2017-18 highlights

- £595,242 awarded in grants to support mathematics (combined total of all grant schemes).
- Supported the Sublime Symmetry exhibition at the Guildhall Art Gallery.
- Pólya Prize awarded to Professor Karen Vogtmann.
- Zeeman Medal awarded to Dr Hannah Fry.

2018-19 plans

- Continue to develop the online grant application system, with a grants dashboard for users to submit and review grant applications and monitor their applications' progress.
- Continue to actively promote and further the participation of women speakers at LMS sponsored events and conferences.
- Relaunch the Knowledge Transfer Papers.
- Launch a Book Donation Scheme fund to support the work of the European Mathematical Society's Committee for Developing Countries.

REPRESENTING AND PROMOTING MATHEMATICS

Objective: to promote widely mathematical sciences research and its broad benefits to decision makers, policy advisers, funders and users of mathematics.

Through its external and public relations the Society aims to ensure that the centrality of mathematics to so many aspects of society is represented to Government, other national policy-makers and influential organisations and individuals in order to inform debate and improve decision-making. The Society undertakes significant collaborative work advocating for mathematics both individually and through the Council for the Mathematical Sciences (CMS).

Public affairs

The Society has undertaken extensive public affairs work over the past year in promoting mathematics to decision-makers and policy advisers within what has been a challenging political and economic climate. It has responded to various consultations by the Department for Education and Ofqual, in doing so ensuring the mathematical community's voice is heard with a view to influencing policy decisions.

The LMS Research Policy Committee has continued to seek robust evidence to inform its policy contributions. In 2017-18 the Committee has driven the Society's nominations to the Research Excellence Framework (REF) 2020 subject panels, to ensure that the mathematical sciences community is well-represented in this important exercise. The Committee has also been gathering data on mathematical sciences postdocs and research assistants in UK departments and on Doctoral Training Partnership (DTP) funding to continue to further its understanding of the people pipeline and to ensure it has supporting data available when making its case for the mathematical sciences to influencers.

An online LMS Mathematical Sciences Directory, the MSDirectory, containing the names of over 6,000 academic UK mathematical scientists in the form of a searchable electronic database, was launched in 2017. The MSDirectory aims to act as a free, central resource to facilitate networking and collaboration, doing so by enabling academics across all disciplines, Research and Development departments within industry, and those in other employment sectors to easily identify UK mathematical scientists by research area, geographical location, and any other criteria specific to needs. The Society continues to promote the Directory, and all UK mathematical scientists in both academia and industry are encouraged to join.

For the fifth year the mathematical sciences, through the CMS, were represented in the prestigious STEM for Britain poster competition at the House of Commons, which brings together young researchers across all STEM (Science, Engineering, Technology and Mathematics) disciplines with Members of Parliament. Dr Celine Maistret (University of Bristol) received the Gold award for her research into the Birch and Swinnerton-Dyer conjecture, one of the Clay Mathematics Institute (CMI) Millennium problems. Silver was awarded to Ms Linda Irons of the University of Nottingham, for her poster presenting the mathematical modelling of cell adhesion in asthma and the Bronze award went to Dr Yoann Altmann of Herriot-Watt University, for his research into new computational methods for low illumination imaging and sensing. The Gold and Silver awards (including prizes of £2,000 and £1,250 respectively) were sponsored by the CMI, and the Bronze prize (£750 prize) was sponsored by the Heilbronn Institute of Mathematical Research (HIMR).

Over the past year the Society has responded to consultations from the Department for Education (DfE) on: *Accelerated Degrees: Widening Student Choice in Higher Education*; *Strengthening Qualified Teacher Status and Improving Career Progression for Teachers*; and *Teaching Excellence and Student Outcomes Framework: Subject-level*. The Society also submitted a response to the Ofqual consultation on *Functional Skills Qualifications: Consultation on Mathematics Content*. The Education Committee continues to work with other societies and groups, including the revamped Advisory Committee on Mathematics Education (ACME), which aims in part to advise the DfE on curriculum content.

Within the mathematics research community the LMS President has represented the Society widely at various events, ensuring national and international recognition for the Society and for UK mathematics as a whole, and ensuring the Society's and UK's input into international discussions. The President has represented the Society at the International Congress of Mathematicians, Parliamentary and Scientific Committee meetings, the Abel Prize ceremony and the European Mathematical Society Council. The General Secretary represented the Society at the Heidelberg Laureate Forum.

Council for the Mathematical Sciences

The Society is a founding member of the Council for the Mathematical Sciences (CMS) which aims, through its member bodies, to draw together the mathematical community to speak with one voice on national issues of mutual concern. The CMS provides a forum for the consideration of matters of joint interest; it responds and makes representations to Government and others on relevant issues. The CMS represents the mathematical sciences to government, in particular to the Department for Business, Energy and Industrial Strategy (BEIS). It meets regularly with the Engineering and Physical Sciences Research Council (EPSRC) and aims to have similar interaction with the newly formed UK Research and Innovation (UKRI). The CMS is also a member of the Parliamentary Collaboration Steering Group for STEM learned societies, through which it has also

been represented on a high level working group on the impact of Brexit on the science community.

The CMS has also been working with the Royal Society on the next steps for the establishment of the various working groups of the new Royal Society Advisory Committee on Mathematics Education (ACME) through its new Chair, Professor Frank Kelly. The four partner organisations of the Royal Society (RS), the Institute of Mathematics and its Applications (IMA), London Mathematical Society and the Royal Statistical Society (RSS), with wider support from the mathematics teacher community, are working together to create a set of four 'contact groups', based within the Royal Society governance structure and reporting in to the Royal Society Advisory Committee on Mathematics Education. The purpose of these contact groups is to review the current implementation of the mathematics curriculum up to the age of 18 and, in time, prepare for the next round of curriculum reform, providing a unified voice for the mathematics education community and delivering more than the sum of its parts.

The Society, as part of CMS, also took part in Voice of the Future, in March 2018, and Parliamentary Links Day in June 2018. The theme for 2018 was Science and the Industrial Strategy. The event was opened for the tenth year by the Speaker of the House of Commons, Rt Hon. John Bercow MP with introductions from the Shadow Minister for Industrial Strategy Chi Onwurah MP and Government Chief Scientific Advisor Dr Patrick Vallance. This was followed by a luncheon in the House of Lords where CMS representatives and guests had the opportunity to meet with Lords and MPs.

Following the announcement from the current Chair of CMS, Professor Sir Adrian Smith, that he would be standing down to take up the role of Director of the Alan Turing Institute in the Autumn of 2018, the new Chair Professor Sir Ian Diamond has been appointed and will take up the role from September 2018.

The CMS showed strong support for the Bond Review Report entitled *The Era of Mathematics: An Independent Review of Knowledge Exchange in the*

Mathematical Sciences. The review recognised the need to develop a sustainable people pipeline of top-level Mathematical Sciences talent within academia, nurturing individuals keen to engage with government, industry and wider research challenges. The report highlights the current shortage of such individuals and makes a strong case for increased investment in the discipline. It also recognises the need to establish infrastructure to facilitate effective and timely communication and interaction between mathematicians and potential users. The LMS is working with other CMS learned societies and the wider mathematics community on the establishment of a working group, to bring the recommendations in the report to fruition. The report can be found at <https://epsrc.ukri.org/newsevents/pubs/era-of-maths/>

The work of the CMS continues to ensure that the importance of the mathematical sciences is increasingly recognised at Government level, and is fully embedded within the mathematical sciences community.

Collaborative working

The Society works actively and collaboratively through its membership of and funding for a number of mathematics and science organisations to ensure the interests of mathematics are represented in national policy and public debates and to ensure the Society is kept informed of external policy issues. Membership includes the UK Parliamentary and Scientific Committee, British Science Association, Joint Mathematical Council, Campaign for Science and Engineering (CaSE), and the Foundation for Science and Technology. The Society also works in association with the UK Heads of Departments of Mathematical Sciences (HoDoMS). The Society is also a member of the Parliamentary Affairs Committee (run by the Royal Society of Biology,

on behalf of other STEM learned bodies), and maintains representation within a number of other organisations, including the Programme and Scientific Committees of the International Centre for Mathematical Sciences (ICMS) and Isaac Newton Institute (INI), the Athena Forum (run by the Royal Society) and the STEMM Disability Advisory Committee.

The Society provides funding for the INI and the ICMS as the major organisations supporting mathematical research in the UK, as well as for ACME.

The Society and the IMA have continued their collaborations throughout the year, including through the award of the Zeeman Medal. A joint press statement was issued by the two Societies on A-level results and a joint meeting was held with the title *Symmetry and Computation*.

Development Activities

The Society will be prioritising its Development activities in 2018-19, to help ensure that the financial foundation of the organisation is as secure as possible for future generations, as well as making sure that the importance of the mathematical sciences is understood as widely as possible in industry and beyond.

The 'De Morgan Dinners', held in 2013 and 2014 and the Anniversary Dinner held in 2015 have helped develop a group of influential external supporters from a wide range of backgrounds, sympathetic to the Society's mission. The Society aims to work further with this group to help develop strategies and support for the healthy future development of the mathematical sciences in the UK.

2017-18 highlights

- Responses issued to Government and national agencies' consultations.
- Professor Sir Ian Diamond appointed as new CMS Chair.
- Supported the ongoing development of the working groups of the new Royal Society Advisory Committee on Mathematics Education (ACME).
- Supported the ongoing implementation of the recommendations from the Bond Review.

2018-19 plans

- Work in collaboration to bring the recommendations of the Bond Review to fruition.
- Continue to gather, analyse and report on evidence with respect to UK mathematics.
- Continue to bring to the attention of decision-makers and policy advisers national data on mathematics and the UK mathematics landscape.
- Continue to represent mathematics research and education to Westminster, Whitehall and other national funding bodies and ensure that mathematics is explicitly considered during discussions regarding STEM subject areas.
- Further promote the MSDirectory UK, in particular to potential industrial research collaborators.

DISSEMINATING MATHEMATICS

Objective: to disseminate mathematical knowledge and make it available worldwide.

Through its publications and meetings the Society aims to disseminate high-quality mathematical research and thinking worldwide. The Society currently publishes 12 peer-reviewed journals, seven of which are in collaboration with other learned societies and institutions, as well as two book series and individual book titles. The Society also hosts regular meetings and lecture series involving some of the most renowned UK and international mathematicians.

The Society's publications serve a dual purpose, in not only disseminating mathematical research but in providing the Society with an income which it utilises entirely in furtherance of its other charitable activities. The broad and developing portfolio of high-quality journals and books serve our authors through transparent, timely and professionally managed editorial and production processes, and serve our readers by providing content of wide interest and high quality, whilst maintaining sustainable and ethical pricing, including the offer of free online access to LMS members and institutions in developing countries.

Publications

The Society agreed new Aims and Objectives for its publications, which together form a three-year Publications Strategic Plan. The new Aims focus on the provision of services for authors and readers, leadership and representation within UK mathematics publishing, and sustainability of the Society's income from publishing.

Arising from the Objectives, plans were put in place to develop individual publications. Such plans include the speeding up of editorial processes, clearer

identities for the Society's journals, and the extension of subject coverage, for example by including aspects of computational mathematics. Further strategic developments are being considered by a smaller working group that meets twice a year and reports to the Publications Committee.

A new model of governance and reporting on the Society's publications was adopted by the Council. While securing accountability of the Publications Committee to Council in areas relating to the reputation of the Society and its legal and financial arrangements, Council has devolved to the Publications Committee responsibility for the development of the Society's publications.

New contracts were signed with Cambridge University Press for five years from January 2018 to continue the publication of the LMS Lecture Notes and Student Texts book series and for hosting the 1998-2017 content of the (discontinued) LMS Journal of Computation and Mathematics.

In 2018 the Bulletin of the London Mathematical Society entered its fiftieth year of publication.

Society Lectures and Meetings

The new Society Lectures and Meetings Committee met for the first time in autumn 2017. The purpose of the Committee is to provide a strategic focus on the Society's lectures and meetings and how these events can be used to maximum potential for the benefit of UK mathematics.

Meetings

Society Meetings enable both members of the mathematical community and the wider public to meet, hear about and discuss current mathematical thinking and developments. In 2017-18 Society Meetings were held at Cardiff, Leicester, Loughborough, Northumbria, San Diego, St. Andrews and Warwick as well as London. An international Society Meeting was held at the Joint Mathematical Meeting (JMM) in San Diego. A special Society Meeting to celebrate the work of the late Fields Medallist and LMS Honorary Member, Professor Maryam Mirzakhani, was held at Warwick in March 2018.

The Mary Cartwright Lecture was given by Professor Carola Bibiane-Schoenlieb at the Society Meeting held in March 2018. A Society Meeting was also held at the British Mathematical Colloquium at the University of St. Andrews in June 2018, which included a lecture by Professor Laura DeMarco.

During 2017-18, the Society held a joint meeting in London with the Institute of Mathematics and its Applications on *Symmetry and Computation*.

Lecture series

The Society's funding for visiting international lecturers helps enable UK-based mathematicians to engage in dialogue with current mathematical

thinking from across the world.

International lecturers included the 2018 LMS Invited Lecturer, Professor Art Owen (Stanford University), who gave the Invited Lectures Series at the University of Warwick on *From the Foundations of Simulation to Quasi Monte Carlo*. The 2018 LMS-NZMS (New Zealand Mathematical Society) Forder Lecturer, Professor Valerie Isham (University College London), visited New Zealand in May 2018 to give lectures at a number of universities in New Zealand as the part of the LMS-NZMS Forder Lecture Tour 2018. The 2018 Hardy Lecturer, Professor Lauren Williams (University of California, Berkeley/Harvard University) visited the UK to give lectures at Birmingham, Cambridge, Edinburgh, Kent, Leeds and Oxford, as part of the Hardy Lecture Tour.

Two Graduate Student Meetings were held prior to both the Annual General Meeting in November 2017 and the General Meeting in June 2018. Over 50 students attended these meetings and 10 gave presentations on their own research.

All of the Society's meetings and lectures are open to members and non-members alike and are free to attend. In 2017-18 over 550 people have attended the meetings and been able to hear about important current developments in mathematical sciences research.

2017-18 highlights

- New Publications Aims and Objectives.
- New model of governance and reporting on the Society's publications.
- Development of individual publications.
- 50th volume of the Bulletin published.
- Society Lectures and Meetings Committee launched.
- Over 550 people attended 11 Society Meetings.
- Host a Society Meeting and LMS reception at the ICM 2018 in Rio de Janeiro.

2018-19 plans

- Continue to develop strategies and targets in accordance with the new Publications Aims and Objectives.
- Hold meetings with the full editorial boards of the Society's journals to inform and consult on agreed and future developments.
- Maintain a competitive position within mathematics publishing and uphold the LMS reputation for publishing high-quality research and exposition.
- Continue to identify opportunities for publishing high-quality mathematical research taking into account the evolving scholarly publishing landscape.
- Host a joint Society Meeting with the IMA to celebrate the centenary of Emmy Noether's paper on Conservation Laws.
- Host a joint Society Meeting with the Fisher Trust, the Genetics Society, the Galton Institute and the Royal Statistical Society to mark the 100th Anniversary of R.A. Fisher's paper on the theory of quantitative trait inheritance.
- Fund and host the 2019 LMS-NZMS Aitken Lecture Tour.

SUSTAINING THE MATHEMATICAL COMMUNITY

Objective: to promote equality of opportunity and a culture of fairness across all career stages, ensuring the long-term sustainability of the mathematical research community.

The Society has recognised increasing concern among the community regarding career progression across academia generally and within the mathematical sciences specifically. Decreasing statutory funding leading to fewer opportunities for graduates and postgraduates has caused concern about the sustainability of the mathematical sciences people pipeline. Ensuring that talented mathematicians are enabled to progress securely through the various career stages is critical – not only to academia but to wider industry and the economy more generally. This objective focuses the Society's work in this area, particularly with respect to the transitions between the early career stages (undergraduate to postgraduate and postgraduate to postdoctoral) and to women in mathematics and the wider diversity agenda.

Early career progression

The Society established a new committee, the Early Career Research Committee, which met for the first time in autumn 2017 and which now oversees all of the Society's early career research activities. Having a committee that focuses specifically on early career research will help provide a strategic overview of this vital aspect of the Society's work.

The Society operates a number of schemes which provide support for the early career progress of mathematicians at undergraduate, postgraduate and postdoctoral level as well as for women in mathematics.

Postgraduate Research Conference Grants

The Postgraduate Research Conference grant scheme

aims to give postgraduate students the experience of applying for, organising and hosting a conference for other postgraduate mathematicians. In 2017-18, the Society awarded £31,760 to support 10 postgraduate conferences, including the annual *Young Researchers in Mathematics* conference, held in Southampton.

Celebrating New Appointments Grants

The *Celebrating New Appointments* grant scheme is designed to provide partial support for inaugural meetings organised to celebrate the new appointment of a lecturer at a UK institution. The one-day meeting aims to recognise the new appointment as well as to strengthen the research network they naturally sit in, whilst additionally giving the new appointment the opportunity to network and forge links in the local community. In the 2017-18 financial year, the Society awarded £11,368 to support 20 inaugural meetings at UK institutions.

Undergraduate Summer Schools

The Undergraduate Summer Schools aim to introduce exceptional non-final year undergraduates to modern mathematics and, in particular, to make them think seriously about a future academic career. The 2018 School, held at the University of Glasgow, attracted applications from 31 universities across the UK. 54 students attended the School which included a combination of short lecture courses given by mathematical experts alongside problem solving sessions and colloquium style talks. A number of prizes, including four one-year LMS memberships for students, were awarded.

LMS-CMI/Heilbronn Research Schools

The Research Schools Scheme operates in partnership with the Clay Mathematics Institute (CMI) with additional support from the Heilbronn Institute. In 2017-18, four LMS/CMI/Heilbronn Research Schools took place: at Imperial College London (*Homotopy Theory and Arithmetic Geometry: Motivic and Diophantine Equations*), the University of Oxford (*Algebraic Topology of Manifolds*), the University of Nottingham (*The Mathematics of Multiscale Biology*) and the University of Warwick (*Introduction to geometry, dynamics, and moduli in low dimensions*) attracting over 135 participants. A further Research School will take place in August 2018 at the University of Exeter (*New Trends in Analytic Number Theory*).

LMS Travel Grants for Early Career Researchers

The Society launched a new grant scheme to support Early Career Researchers (defined as research students or having completed their PhD within the last five years, excluding career breaks) attending conferences or undertaking research visits both within and outside the UK.

LMS Grants for Meetings of Undergraduate Mathematical Societies

The Society funds a grant scheme to support meetings of Undergraduate Mathematical Societies at UK universities by providing funding for speakers and receptions after the meetings.

Undergraduate Research Bursaries

The sixth round of the Undergraduate Research Bursaries scheme received 119 applications from 35 institutions, an increase to the 105 applications received in the previous round. The Society was pleased that once again the vast majority of applications were supported by matchfunding, with 30 out of 35 institutions offering to provide 50% of funding for successful applications, allowing the Society to nearly double the number of awards made under the scheme than in previous years. There

were 43 awards made in 2018, 40 of which were matchfunded. The scheme has now provided support to almost 200 students over the years, and feedback from grantholders has indicated how valuable this scheme has been in providing a flavour of what a research career entails.

Other activities

In addition to these specific schemes other ongoing activities continue to support early career researchers. These include providing funding for the *Young Researchers in Mathematics* (YRM) conference, held in July 2018 in Southampton, in partnership with Think Tank and Winton Capital and attended by 85 early career researchers. The YRM is a national conference specifically for postgraduate students, planned, organised and run by the students themselves. Also, the Society funded the LMS Prospects in Mathematics event, which was held at the University of Warwick in September 2017 and was attended by 90 undergraduates. The meeting is primarily aimed at final year undergraduates and Masters' Students interested in pursuing a PhD in mathematics. Students are able to learn about PhD research opportunities in different areas of mathematics before choosing their final year modules.

Both the YRM Conference and the LMS Prospects in Mathematics Meetings are supported by the Society, and are held annually at different institutions across the UK. These meetings are important events that encourage and support students in the pursuit of a career in mathematical sciences research.

Women in Mathematics

The Society continues its commitment to improving the proportion of women in mathematics and to helping ensure that equal opportunities are embedded within working practices for the benefit of everyone working and studying within UK university departments. The Women in Mathematics Committee has representatives from all 5 constituent mathematical bodies of the CMS as well as from the Standing Committee of European Women in Mathematics, ensuring it speaks for the entire UK

mathematical community. The Chair of the Women in Mathematics Committee represents the Society on the Athena Forum.

In 2018 the Committee launched an online resource for young people, *Success Stories in Mathematics*, to provide examples of how mathematics is used in a wide range of careers and to demonstrate the variety of career options available to anyone who holds a mathematics degree. The website currently features nearly 60 profiles of mathematicians from all walks of life with diverse and interesting stories. The project was launched at an event at the British Library in May 2018. It is intended that new profiles will be added on a regular basis to the website and that poster versions of the stories will be made available to download so that they can be used as an educational resource.

The Women in Mathematics Committee also published '*Advice on Diversity at Conferences and Seminars*' to ensure that best practice in gender diversity is followed when inviting a programme of speakers for events. Applicants to the Society's grant schemes will be encouraged to take this advice into consideration when planning conferences and seminars.

The Society operates the LMS Good Practice Scheme, which aims to help mathematics departments to take practical actions to improve the participation of women and to share examples of good practice with other departments. The Scheme offers support in applying for an Athena SWAN award for those departments seeking recognition for their work in this area. As part of this initiative a LMS Good Practice Scheme workshop was held in London in October 2017, which focused on the new Athena SWAN application, and a second workshop was held in Edinburgh in December 2017 in collaboration with the Edinburgh Mathematical Society and International Centre for Mathematical Sciences (ICMS) and focused on Good Practice in Recruitment. There have been over 250 attendees at the GPS workshops held to date, representing over 50 institutions. The LMS

Good Practice Scheme and its events are intended to help mathematical sciences departments implement best practice policies, contributing towards the achievement of Athena SWAN status, and ultimately working towards ensuring that negative, unhelpful or discriminatory practices preventing fair career progression are eliminated. Feedback from the events held to date has been overwhelmingly positive. 47 mathematical sciences departments now hold Athena SWAN awards (9 silver and 38 bronze), and 40 of these are registered LMS Good Practice Scheme Supporters.

The Good Practice Scheme Steering Group has also been working on an update to the 2012 Benchmarking Survey of women in UK mathematics departments. The updated report will seek to analyse the progress made since the publication of the original survey and to identify effective examples of good practice. The report will be published in autumn 2018. Mathematics departments were also given the opportunity to purchase an individualised report benchmarking their departmental data against the national data, to help input into their Athena SWAN applications. 16 departments took this opportunity.

In collaboration with the Isaac Newton Institution (INI) and the University of Cambridge the Committee funded a two-day Women in Mathematics event at the INI in April 2018 attended by over 100 mathematicians. A second event will be held in Newcastle in autumn 2018. Two Girls in Mathematics events were hosted by the Open University and jointly by the University of Edinburgh and Heriot-Watt University. Both the Women in Mathematics and Girls in Mathematics schemes received a strong number of applications for the available funding, indicating the level of interest within the community for providing activities that encourage and support girls and women in mathematics.

The Committee continues to operate its Caring Supplementary Grants and Grace Chisholm Young Fellowship schemes.

2017-18 highlights

- *Success Stories in Mathematics* project launched.
- Early Career Research Committee launched.
- New Travel Grant Scheme for Early Career Researchers launched.
- Four Research Schools held across the UK, three in partnership with the CMI and support from HIMR.

2018-19 plans

- Continue to run at least four Research Schools.
- Launch the Early Career Fellowship Scheme to support early career researchers in the transition period between PhD completion and first post-doctoral research fellowship.
- Publish an updated benchmarking survey on gender diversity in UK mathematical sciences departments.
- Seek sponsorship to continue to run those activities which provide support to early career researchers.
- Develop downloadable poster versions of the *Success Stories in Mathematics*.
- Continue to gather and disseminate data related to the mathematical sciences people pipeline to evidence gender diversity within the discipline.
- Explore how the Society might approach wider matters of Equality, Diversity and Inclusion.

ENGAGING WITH EDUCATION AND THE PUBLIC

Objective: to support mathematical education in schools, colleges and universities, and to encourage the public and young people to appreciate and engage with mathematics.

The Society is keen to ensure that as far as possible the wider public and young people have the opportunity to engage with and appreciate mathematics and recognise its contributions to society. It operates a number of initiatives which aim to achieve this.

Education

The Education Committee works on a number of different activities and schemes, including grants for education, public lectures and responses to consultations.

This year the Society's Mathematics Teacher Continuing Professional Development (CPD) grants scheme made 25 awards, supporting the professional development of mathematics teachers and the improvement of mathematics teaching.

The Committee submitted responses to government consultations on functional skills, accelerated degrees, and strengthening qualified teacher status and improving career progression for teachers. It is also working to update its statement on the teaching and assessment of mathematics degrees, a support document which aims to explain to non-mathematical colleagues some of the distinctive features of the assessment and teaching of mathematics, both as a subject in its own right and in a service teaching context.

The Committee continues to work closely with other groups and societies in the area of mathematics education, including the Advisory Committee on Mathematics Education (ACME), as well as the Joint Mathematical Council of the UK (JMC), Heads of

Departments of Mathematical Sciences (HoDoMS) and the Higher Education Academy (HEA). In May 2018, a LMS Education Day was held at De Morgan House and attended by a number of representatives of these groups as well as representatives from a number of UK universities. The event, *Curriculum for the 21st Century*, invited colleagues from across the sector to discuss the opportunities and challenges posed by the transformation of the modern-day mathematics curriculum.

The Education Committee continues to run the Holgate Session Leader scheme. The Scheme provides session leaders who are willing to give a talk or run a workshop on a mathematical subject to groups of students or teachers. The sessions are specifically mathematical in content (rather than, say, career talks) and are intended to enrich and enhance mathematical education, looking both within and beyond the curriculum. Two Session Leaders, Katie Chicot and Professor Peter Giblin, reached the end of their terms in 2018 and it is hoped that two new Session Leaders will be appointed in 2018-19.

Popularisation

This year's Popular Lectures were presented by Dr Katie Steckles and Dr Jennifer Rogers. Over 600 people attended the Lectures in London and Birmingham.

The Society once again hosted a joint lecture with Gresham Colleges. The 2018 Gresham Lecture - *Mathematical Research from Toy Models* - was presented by Professor Tadashi Tokieda (Stanford University).

Through the Joint Promotion of Mathematics Steering Group (JPM), mathematics was represented at the Big Bang UK Young Scientists and Engineers Fair held in Birmingham in March 2017, with a range of interactive demonstrations and activities, which, as previously, proved to be very popular. Although the

JPM Steering Group was wound up in 2018, several projects have continued including the production of the Maths Inside leaflets in conjunction with the Royal Society and exhibitors at the Royal Society's Summer Science Exhibition in July 2018.

2017-18 highlights

- LMS Education Day on *Curriculum for the 21st Century*.
- Popular Lectures attended by about 600 people.

2018-19 plans

- Issue further LMS policy position statements to support mathematics Higher Education and education in schools.
- Increase the capacity of the Holgate Session Leader scheme.

MANAGING THE SOCIETY EFFECTIVELY

Objective: to manage the Society's affairs and resources effectively and efficiently, operating where appropriate to make a not-for-profit financial return on activities, and to seek a variety of funding sources to support the Society's work.

The Society aims to ensure that its resources are put to best possible use in achieving its mission and objectives. In all its operations it aims to ensure the longevity of the Society and plan for future circumstances, while also meeting the current needs of mathematics and its community.

In doing so the Society ensures it follows best governance practices by operating in accordance with its Charter, Statutes and By-Laws and by referring to guidance from the Charity Commission and, where appropriate, professional advisors (Annex 1).

The Society is governed by a Council of Member Trustees, elected by the membership from the mathematical community (Annex 1). Day-to-day operations are undertaken by a full-time equivalent (FTE) staff of 15 (Annex 4). Council has chosen to delegate decision making on a number of matters to 18 standing committees and has also set up a number of temporary ad-hoc committees to deal with specific items of business (Annex 2). Council also maintains and reviews annually a Risk Register with respect to

all activities undertaken by the Society.

The Society runs its financial operations in accordance with best accounting practices and ensures that all its plans and activities are underpinned by a sound financial basis. The Society's financial and governance affairs are externally audited on an annual basis.

In 2017-18, the Society reviewed and updated its Data Protection Policy, Privacy Notice and Procedures in readiness for its continued compliance with the new Data Protection Act 2018/General Data Protection Regulation (GDPR), which came into force on 25 May 2018.

More detailed information on how the Society operates is available in the sub-sections that follow:

- Governance and Public Benefit
- Financial Review
- De Morgan House
- Statement of Trustees' Responsibilities

Governance and the Public Benefit

Governance

The Society's governing body is its Council, members of which are also the Trustees of the charity. The Council consists of 20 members of the Society of whom 8 are Officers (including the President) and 12 are Members-at-Large, including one 'Member-at-Large (Librarian)'.

The Officers of the Society, together with the Executive Secretary, comprise the Finance and General Purposes Committee (F&GPC), which is responsible for providing advice to Council on a number of ad-hoc matters, implementing Council's decisions and for ongoing financial management.

All candidates for election to Council are provided with information on the roles and responsibilities of Trustees. Those elected attend an induction normally in advance of their first Council meeting, which includes information on the work of Council, its strategies and plans, the operation of the financial systems, the administration of the Society and the responsibilities of a Trustee. All Council members are required to return a Declaration of Interests, a Declaration as a Fit and Proper Person, and to sign up to the Society's Anti-Bribery policy; these declarations must be renewed by all Trustees on an annual basis. Staff in management positions also sign an annual Declaration of Interests.

Council met five times in 2017-18: in October and November 2017 and in February, April and June 2018 (F&GPC met four times: in September 2017 and in January, March and June 2018). The Society holds an Annual General Meeting and a mid-year General Meeting each year - held in November 2017 and June 2018 respectively.

Council has established several standing committees which advise Council and to which it has delegated some decision making. A list of all committees and committee membership is given in Annex 2. A review of the terms of reference of the committees is being undertaken to ensure that the Society has the

appropriate committees to implement its strategies and activities effectively.

As Trustees, Council members receive reimbursement only for expenses actually incurred in attending meetings or representing the Society. However, if a Trustee works over and above normal Trustee's duties, the Society may pay an honorarium for that service if there is a written agreement produced in advance between the Society and the Trustee outlining the work to be undertaken and stating the exact or maximum amount.

The Society depends heavily on the unpaid voluntary work of many of its members and others across the mathematical community, such as those who referee papers submitted to the Society's publications, those who edit those publications or serve on the Society's Editorial Advisory Boards, those who serve on the Society's committees and those who represent the Society on other bodies, together with the members of the Council themselves, many of whom undertake heavy burdens for the Society. The Society appoints representatives on external bodies and committees; these are listed in Annex 3.

Public benefit

In shaping objectives for the year and planning activities, Council has considered the Charity Commission's guidelines on Public Benefit, including the guidance, 'Public benefit: running a charity' (PB2).

Council holds that the development and extension of mathematical knowledge, expanding humanity's ability to determine and affect the natural, artificial and social worlds, leads overwhelmingly to public benefit, providing for improved health and wealth for nations and individuals and providing tools to understand and sustain the world in which we live. The Society's activities directly correlate with its mission and its objectives, and are focused on: supporting mathematicians in their endeavours through grants for research collaboration; by sharing of knowledge through conferences and publications; by improving

the quality of mathematics education for people of all ages; by promoting mathematics and its impact on everyday life to the general public; and by encouraging policies that will benefit mathematics.

Members of the general public are able to participate without charge in all Society activities

of a suitable level. Charges for events aimed at professional mathematicians, whether or not members of the Society, are kept low, a policy that is maintained when deciding on criteria for grant awards; publications are sold at prices that keep them competitive in the academic publishing world.

Financial Review

In the period 2017/18 income (excluding gains on investment assets) exceeded expenditure by £360k, against an expected budget forecast of £244k. This was due to cost savings, underspends in activities and increased income as a result of exchange rate advantage (fall of pound sterling against dollar) on global sales of LMS publications.

The gain on Investments was £317k.

During the year, the value of the Society's assets rose from £16.5m to £17.2m.

Publications income is in a steady state. The Society will continue to seek new opportunities for the expansion of its publishing programme. However, Council is acutely aware of the potential risks to publications income and continues to keep this under review.

The Society remains in a strong position financially and has significant reserves. Given the continuing volatility in the economic climate the Society will keep under review where resources might best be used to further the Society's aims.

The sources of income (see Figure 1, p.26) were:

Publications	66.2%
Investments	16.2%
Conference facilities and rentals	10.9%
Grants and Contracts	1.8%
Members' subscriptions	4.4%
Advertisements in LMS Newsletter	0.2%
Donations	0.1%
Other	0.2%

Figure 2 (p.26) shows expenditure (including governance and support costs) broken down by objective. These were:

Advancing mathematics (eg. membership, links with the mathematics community, library, prizes)	13.5%
Enabling mathematics (eg. grants, and training courses)	32.1%
Disseminating mathematics (eg. publishing, meetings and lectures)	27.9%
Promoting mathematics (eg. decision/policy makers, education, public, media)	14.4%
Other (eg. conference facilities costs, managing residential properties, Investment management fees)	12.1%

Income

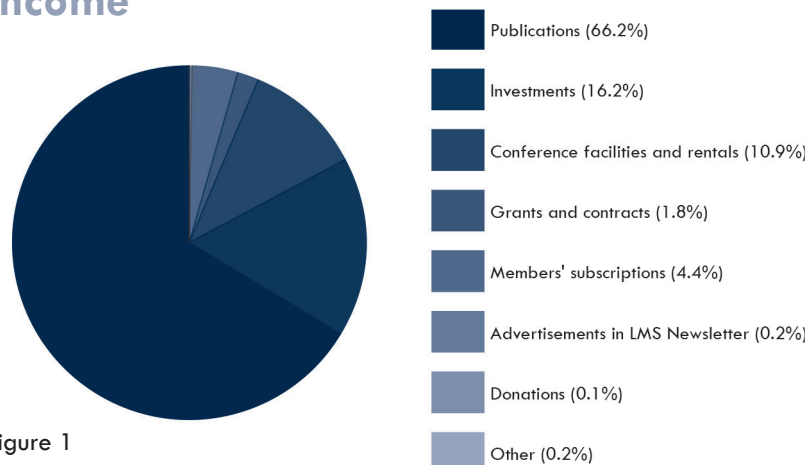


Figure 1

Expenditure

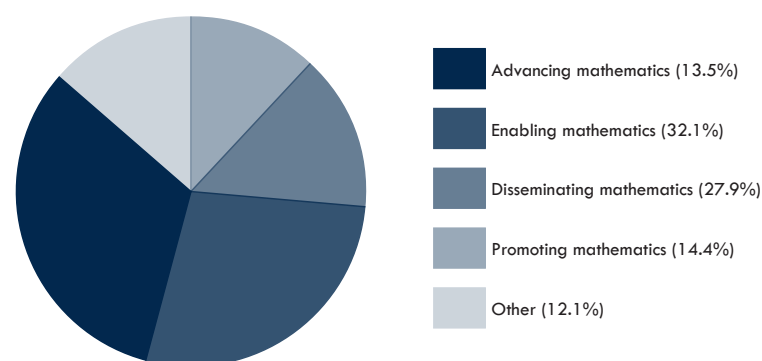


Figure 2

Budgets are set by Council on the recommendation of Finance and General Purposes committee (F&GPC), based on bids from budget holders, in line with the strategic objectives of the Society. Expenditure is monitored quarterly by F&GPC, which is responsible for recommending any variation in the budgets set by Council.

The full audited accounts of the Society, including the accounting policies, are annexed to this Report.

Risk management

Council and F&GPC annually review the Society's Risk Register identifying and quantifying potential risks to the Society and its plans and objectives, and laying out

systems and strategies for mitigating those risks. These are addressed under the following headings: Governance and Management, Law and Regulation, Reputation, External and Environment, Financial, and Operational. In certain cases Council has established Designated Funds to set against potential risks (see Reserves below); the risks or commitments that are covered by each fund are reviewed and revised annually.

The Risk Register includes the potential threat to Publications income, which in the worst-case scenario could have a devastating effect on the income which the Society derives from its learned journals. This income contributes to the Society meeting its charitable objects. In the past year, Council has sought information and expert advice in order to be better prepared for possible future changes to the publishing models and income streams. At its last Strategic Retreat Council considered various financial models derived from certain assumptions regarding the potential future income of the Society. Open Access publishing remains under close consideration.

Reserves

Council reviews its policy on reserves on an annual basis. The unrestricted reserves comprise a General Fund and other Designated Funds. In addition there are several Restricted Funds. Council has several specific Designated Funds to meet the potential costs of activities, to set against risks relating to the building and to publishing (see above) and to meet grant awards made for projects or activities which span a number of years - these are given at Annex 6. The Society has a broad-ranging programme of activities in support of its strategic objectives as described in this report. While some activities are supported from Restricted Funds, all need continuity of funding. Due to the scale and future risks to academic publishing (a key part of the Society's income), Council

continues to operate from the basis that it is prudent to hold a General Fund from which income can be drawn to maintain and extend its charitable activities. The General Fund acts both to provide income for activities not funded from Designated or Restricted Funds, and also as a 'free reserve', providing adequate working capital for the Society to operate effectively and efficiently, and for the pursuit of the Society's objectives as Council may from time to time determine.

The Society holds several Restricted Funds, as described in the audited accounts. These originate from various donations and bequests, and are invested and accounted for on an aggregated 'total return' basis.

Grant Awards and Commitments

Where the Society has contractual or constructive obligations to make grant payments these amounts are accrued in the accounts in accordance with the requirements of the Statement of Recommended Practice (SORP). Resources expended on grants shown in the Statement of Financial Activity (SoFA), therefore, recognise (within the year the grant is awarded) both liabilities and provisions for grant commitments. Normally grant commitments will be claimed by the end of the financial year, although the claim period may be extended by a further year where the start or end date of the grant so requires.

The Society also awards some grants with conditions for payment (such as delivery of a specific level of service or other specific output). Such commitments are reserved in the Designated Funds, and the grants are only recognised in the SoFA when the recipient of the grant has provided evidence of the specific service or output.

Investments

The Society decided to invest up to 30% of its relevant assets in residential property, as valued at the time of purchase, with the remainder given over to the Society's investment managers. Investment in such residential property would be directly managed by the Society rather than the investment managers. The percentage

calculation excludes the value of De Morgan House, though this could be reviewed at any point. Also excluded are any investments made by the investment managers in the property area of asset classes.

1. Quoted investments

The current quoted investment strategy for the portfolio, which is managed by investment managers Schroders (Cazenove), has been modelled to achieve RPI + 4% per annum nominal return over five years (a 4% return in real terms after allowing for average service sector wage inflation). Due to the change in the investment climate Council agreed to accept a lower than 4% return in order to reduce risks. Close attention is paid to our investment policy and to the performance of Schroders, with whom we have regular meetings.

The drawdown each year, as agreed by Council, follows the 'Yale model' and consists of 50% of the previous year's drawdown together with 3.5% of 50% of the current value of the portfolio.

Thus the drawdown is determined by a formula and so may be less or greater than the dividends and interest received: it is shown in the SoFA as Investment Income. The growth in the value of the Society's investments (capital plus income) is the sum of this drawdown and the figure shown in the SoFA for Gains on investment assets. The scale of the Society's activities is designed to match this level of return through the annual budgeting process.

The majority of the Society's reserves - both Restricted and Unrestricted - are invested and managed by the Society's investment managers, Schroders (Cazenove). It is Society policy to review on a regular basis the performance of those professional bodies it employs. Accordingly, Council has an Investment Sub-Committee, which includes six external financial experts, to provide professional advice on the Society's investments and on Schroders' performance. Council has confirmed an investment mandate with discretionary powers with Schroders, based on a 'total return' basis, designed to maximise investment income while maintaining the real value of the investments.

The investment managers have discretion in both the mix and selection of investments in order to meet the growth targets for the portfolio, without exposing to undue risk the Society's reserves, on which its future capacity to maintain its activities depends. The primary long-term target is that the Society's portfolio produces a total return of inflation (RPI) plus 4% pa. The portfolio has exposure to a range of equity, cash, fixed-interest investments and alternative asset classes in both UK and overseas markets, accessed via a single investment in the Schroder Charity Multi-Asset Fund. A summary of the main categories of investments and the geographical split is provided in the notes to the financial statements in accordance with the Charities' SORP. The Schroder Charity Multi-Asset Fund is a common investment fund designed for charities seeking to maintain the real value of their capital over the medium to long term whilst generating a sustainable and reliable distribution level (from income and capital). The portfolio which aims to deliver returns similar to equity markets but with a lower level of volatility, is well diversified across asset classes. This approach is considered by the trustees

to give optimum total return without exposing the Society's investments to undue risk; it is consistent with the principles set out in the Charity Commission guidelines Investment of Charitable Funds, Basic Principles (CC14) and conforms with the Trustee Act 2000.

2. Residential property investments

As a safeguard against fluctuating performance of the stock exchange, the Society expanded its investments portfolio to include residential property and now owns six long lease residential properties (four in Central London and two in Birmingham area), all of which are rented out. The rental derived is shown on the SOFA under 'Investment Income'. The growth in the value of the Society's residential property investment will be shown in the SoFA as Gains on investment assets. The primary long-term target of the Society's residential property is to produce a yield of 4% pa and to increase in capital value by at least the rate of inflation.

De Morgan House

Staff management

The Society currently employs a team of full and part time staff, who are predominantly based within De Morgan House. A list of staff in post during the period is at Annex 4.

The Executive Secretary is responsible for staff-related issues with strategic overview provided by the Society's Personnel Committee.

The remuneration of all staff within the Society is considered in detail by Personnel Committee, and set against the salary scales of the University of London. Any recommendations from the Personnel Committee regarding remuneration are then formally approved by the Trustees (the governing Council). The pay ranges for key management personnel (Senior Management Team) are determined and set by Trustees following analysis of roles and performance by the Personnel Committee. The Personnel Committee will also, as appropriate, compare the Society's pay ranges with those of similar roles in other similar organisations.

De Morgan House

The Society holds a long lease (to 2118) from Bedford Estates on De Morgan House, 57-58 Russell Square, London, WC1. It uses these premises: (a) to house its administrative headquarters; (b) to hold its meetings and conferences in the promotion of mathematics; (c) to let out offices on the upper floors to other organisations on a commercial basis; and (d) for function rooms which it lets to other organisations for their own purposes. This last category includes other mathematical and charitable organisations, where there is both a mathematical and financial benefit; discounts are available and some rooms are offered at either reduced rates or at no charge as part of the Society's charitable giving. £39,640 has been granted in charitable giving for LMS rooms in this manner over the last financial year.

In 2017-18 the use of the Conference Centre for mathematical meetings and as a source of revenue achieved the highest level of income and occupancy since the operation began in 2006. All rooms available for commercial tenancies are currently full.

All six residential properties owned by the Society are currently let.

Statement of Trustees' Responsibilities

The trustees are responsible for preparing the Trustees' Report and the financial statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

The law applicable to charities in England and Wales requires the trustees to prepare financial statements for each financial year which give a true and fair view of the state of the affairs of the charity and of the incoming resources and application of resources of the charity for that period. In preparing these financial statements, the trustees are required to:

- select suitable accounting policies and then apply them consistently;
- observe the methods and principles in the Charities' Statement of Recommended Practice (SORP);
- make judgements and estimates that are reasonable and prudent;
- state whether applicable accounting standards have been followed, subject to any material departures disclosed and explained in the financial statements;
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the charity will continue in business.

The trustees are responsible for keeping proper accounting records that disclose with reasonable accuracy at any time the financial position of the charity and enable them to ensure that the financial statements comply with the Charities Act 2011, the Charity (Accounts and Reports) Regulations 2008 and the provisions of the Royal Charter. They are also responsible for safeguarding the assets of the charity and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

For and on behalf of the Council of the London Mathematical Society:



Professor Caroline Series
(President)



Date

ANNEX 1 - COUNCIL, EXECUTIVE TEAM AND PROFESSIONAL ADVISERS

Members of Council during the period 1 August 2017 to 31 July 2018

President:	Simon Tavaré (until November 2017) Caroline Series (from November 2017)
Vice-Presidents:	Ken Brown (until November 2017) John Greenlees Cathy Hobbs (from November 2017)
Treasurer:	Robert Curtis
General Secretary:	Stephen Huggett
Programme Secretary:	Iain Stewart
Publications Secretary:	John Hunton
Education Secretary:	Alice Rogers (until November 2017) Kevin Houston (from November 2017)
Members-at-Large:	June Barrow-Green (Librarian) Alexandre Borovik Tara Brendle Mark Chaplain (from November 2017) Francis Clarke Andrew Dancer (from November 2017) David E. Evans Tony Gardiner Cathy Hobbs (until November 2017) Sam Howison (until November 2017) Diane MacLagan (until November 2017) Brita Nucinkis (from November 2017) Gwyneth Stallard Alina Vdovina Sarah Zerbes
In attendance:	Eugenie Hunsicker (Chair, Women in Mathematics Committee)

Executive Management Team during the period 1 August 2017 to 31 July 2018

Executive Secretary:	Fiona Nixon
Head of Finance and Accounting:	Ephrem Abate
Head of Society Business:	Lindsay Walsh
Head of Conferences and Building:	Dominic Clark

External advisors

Auditor:	Kingston Smith LLP, Devonshire House, 60 Goswell Road, London, EC1M 7AD
Investment Advisers:	Cazenove/Schroder & Co. Limited, 12 Moorgate, London, EC2R 6DA
Bankers:	National Westminster Bank plc, 208 Piccadilly, London, W1A 2DG
Solicitors:	Bates Wells & Braithwaite, 2-6 Cannon Street, London, EC4M 6YH

Registered address

London Mathematical Society, De Morgan House, 57-58 Russell Square, London, WC1B 4HS
www.lms.ac.uk

Charity registration number

252660

ANNEX 2 - COMMITTEE MEMBERSHIP (as at July 2018)

Membership of Committees as at 31 July 2018

Computer Science Committee: P. Wong (Chair), C. Kestner, J. Davenport (Institute of Mathematics and its Applications (IMA)), R. Heirons (British Computer Society-Formal Aspects of Computing Science (BCS-FACS)), P. Jimack, R. Leese, A. Luqmani (Engineering and Physical Sciences Research Council (EPSRC) observer), J. Shawe-Taylor, I. Stewart.

Development Committee: President (Chair), Treasurer, General Secretary, Executive Secretary, G. Dales, A. Dancer, J. Rodrigo, C. Roney-Dougal.

Early Career Research Committee: C. Parker (Chair), Vice-President Greenlees, H. Johnston, D. Maclagan, R. Newton, S. Olhede, N. Peake, M. Speight, G. Stallard, S. Velani, S. Whitehouse, N. Woodhouse (Clay Mathematics Institute (CMI) representative).

Education Committee: Education Secretary (Chair), Vice-President C. Hobbs, J. Anderson, F. Berkshire, R. Emanuel, A. Gardiner, K. Golden (Heads of Departments of Mathematical Sciences (HoDoMS)), V. Neale, T. Roper, J. White, *Vacancy*.

Finance and General Purposes Committee: President (Chair), Vice-Presidents, General Secretary, Treasurer, Programme Secretary, Publications Secretary, Education Secretary, Executive Secretary.

International Affairs Committee: President (Chair), Programme Secretary, Publications Secretary, General Secretary, C. Budd (UK representative to International Commission on Mathematical Instruction (ICMI)), C. Campbell (Delegate of President of the Edinburgh Mathematical Society (EdMS)), P. Glaister (IMA), J. Parker, S. Schroll, J. Toland (International Mathematical Union (IMU) Executive), N. Walkey (Royal Statistical Society (RSS)).

Investment Sub-Committee: Treasurer (Chair), All other Members of Finance and General Purposes Committee, R. Bogni, J. Dodd, G. Keniston-Cooper, S. Mossaheb.

IT Resources Committee: President (Chair), Vice-President Hobbs, Executive Secretary, F. Clarke, J. Cremona, K. Gillow, I. Stewart.

Library Committee: Librarian (Chair), Publications Secretary, LMS Archivist, C. Hollings, M. McCartney.

Newsletter Editorial Board: I. Moffatt (Editor-in-Chief), J. Barrow-Green, T. Brzezinski, L. Di Vizio, J. Fraser, J. Grbic, T. Hudson, A. Johansen, B. Lionheart, M. McCartney, K. Meeks, V. Neale, S. Oakes, D. Singerman, A. Wade, General Secretary.

Nominating Committee: J. Toland (Chair), M. Chaplain (Council), R. Heath-Brown, H. Dugald Macpherson, M. Mathieu, M. Mazzocco, S. Rees, U. Tillmann.

Personnel Committee: Vice-President C. Hobbs (Chair), Publications Secretary, Executive Secretary, D. Applebaum, David E. Evans, G. Stallard.

Prizes Committee: President (Chair), I. Gordon, D. Higham, J. Keating, A. Lazarev, M. Liebeck, E. Shargorodsky, U. Tillmann, S. Waters.

Publications Committee: Publications Secretary (J. Hunton), Vice-President (C. Hobbs), T. Browning, M. Chaplain, F. Clarke, M. Jubb, I. Leary, T. Sanders, S. Sierra, S. Taylor, A. Turner, R. Thomas, Treasurer (in attendance ex officio).

Research Grants Committee: F. Clarke (Chair), J. Brodski, M. Chaplain, D. Schuetz (Durham Symposium representative), A. Lazarev, N. Peyerimhoff, D. Schuetz, G. Stallard, A. Turner, A. Vdovina.

Research Policy Committee: Vice-President J. Greenlees (Chair), K. Brown, J. Giansiracusa, S. Howison, O. Jensen, C. Molina-Paris, S. Olhede, M. Singer, R. Thomas, J. van den Heuvel (HoDoMS).

Society Lectures and Meetings Committee: Programme Secretary, M. Kambites, K. Leschke, E. Mansfield, N. Petrovskaya, M. Todd, A. Vdovina.

Women in Mathematics Committee: E. Hunsicker (Chair), Vice-President J. Greenlees, S. Beg (Operational Research Society (ORS)), T. Brendle (Edinburgh Mathematical Society (EdMS)), A. Davis, C. Hobbs, S. Lombardo, D. Maclagan, J. McKee, S. Pumpluen, L. Rodgers (RSS), C. Smith, A. Taormina (European Women in Mathematics (EWM)), *Vacancy*.

Sub-Groups, Ad-hoc Committees and LMS appointments as at 31 July 2018

Publications Nominating Group: Publications Secretary (Chair), K. Ball, T. Browning, G. Brown, M. Gross, M. Haskins, P. Jorgensen, M. Pollicott, U. Tillmann, C. Tretter.

Good Practice Scheme Steering Group: P. Clarkson (Chair), A. Davis, P. Davies, Vice-President J. Greenlees, E. Hunsicker (Chair, Women in Mathematics Committee), A. Taormina, J. van den Heuvel (HoDoMS), J. Walker.

LMS–IMA Joint Working Group (LMS members): President (Chair), Vice-President J. Greenlees, Executive Secretary.

LMS-IMA Zeeman Medal Committee 2018 (LMS Members): President, T. Brendle, P. Cameron.

Mentoring African Research in Mathematics (MARM) Board: J. Ball (Chair), H. Clemens (IMU), S. Huggett (LMS), F. Neumann (LMS), W. Ogana (AMMSI), Executive Secretary.

Undergraduate Summer School Scientific Committee: A. Hone, F. Kirwan, S. Tabachnikov, A. Veselov.

Standing Orders Review Group: General Secretary (Chair), President, J. Barrow-Green, A. Borovik, J. Toland, Executive Secretary.

Website Working Group: Council Webmaster (Chair), Vice-President J. Greenlees, J. Barrow-Green, A. Borovik, P. Cameron, Executive Secretary.

Council Diarist: B. Nucinkis.

Council Webmaster: S. Huggett.

LMS/EMS Newsletter Correspondent: D. Chillingworth.

Scrutineers: C. Goldie, C. Lance.

ANNEX 3 - EXTERNAL REPRESENTATIVES (as at July 2018)

Representatives on external committees and boards as at 31 July 2018

Athena Forum: Chair, Women in Mathematics Committee.

British Science Association Mathematics Section: Education Secretary.

British Mathematical Colloquium Scientific Committee: M. Devisscher, S. Rees, C. Roitzheim.

Council for the Mathematical Sciences Board: President, Vice-President C. Hobbs, Vice-President J. Greenlees, Executive Secretary (any 3 of).

Council for the Mathematical Sciences-Engineering and Physical Sciences Research Council (CMS-EP SRC) Liaison Sub-Group: Vice-President C. Hobbs, Vice-President J. Greenlees, Executive Secretary (any two of).

European Mathematical Society Council: President, Programme Secretary, M. Mathieu, C. Roney-Dougal.

Heads of Departments of Mathematical Sciences Committee: General Secretary.

International Centre for Mathematical Sciences (ICMS) Board: M. Kim.

International Centre for Mathematical Sciences (ICMS) Programme Committee: J. Gog, *Vacancy*.

International Commission on Mathematical Instruction (ICMI) UK representative: C. Budd.

Isaac Newton Institute (INI) Management Committee: U. Tillmann.

Isaac Newton Institute (INI) Scientific Steering Committee: V. Isham, M. Harris.

Isaac Newton Institute (INI) Correspondent: B. Pelloni.

Joint Mathematical Council (JMC): Education Secretary.

Parliamentary and Scientific Committee: President, Vice-President J. Greenlees, Vice-President C. Hobbs, Executive Secretary.

STEMM Disability Advisory Committee: Chair, Women in Mathematics Committee.

Teaching Training Scholarships Management Group: Education Secretary

ANNEX 4 - STAFF

Staff in post in the period 1 August 2017 to 31 July 2018

Executive Secretary's Office

Executive Secretary	Fiona Nixon
PA to the Executive Secretary	India Sivyer
Head of Finance and Accounting	Ephrem Abate
Accounts Assistant	Valeriya Kolesnykova ◇
Administrative Editor, LMS Newsletter	Susan Oakes ◇*

Publications

Publications Development Manager	Suzanne Abbott
Editorial Manager	Ola Törnkvist
Publications and Communications Administrator	George Ross

Society Business

Head of Society Business	Lindsay Walsh
Membership and Engagement Officer	Elizabeth Fisher
Council and Research Officer	Katy Henderson
Society Communications Officer	John Johnston
Society Business Officer	Katherine Wright
Grants and Membership Administrator	Anthony Byrne

Conferences and Building Group

Head of Conferences and Building	Dominic Clark
Conference and Events Coordinator	Zee Edah-Tally
Receptionist	Roberta Boyce ◇
	Angela Waidson ◇

◇ Part-time posts * not based at De Morgan House

ANNEX 5 - GRANT SCHEMES

General policy on grant-making

The grant schemes are funded from the Society's resources received from its endowments, investments and publishing activities and are one of the primary mechanisms through which the Society achieves its central purpose, namely to 'promote and extend mathematical knowledge'. The principles governing its grant-giving are:

- As a charity the Society is able, and wishes, to take advantage of different opportunities and to work within a different regulatory framework from other funding bodies, such as the Engineering and Physical Sciences Research Council (EPSRC). Its grant schemes are focused accordingly.
- The Society's funds are under pressure, and it is not able to make awards as often or as fully as it would like.
- The Society does not normally meet the full cost of an activity. Rather it will aim to give added value to an event largely funded by other means, or to bridge the gap between cost and the resources that might reasonably be made available by a university department.
- The Society does not pay Full Economic Costs.
- The Society does not make grants to cover departmental overheads, secretarial costs, etc., which could be seen as part of normal departmental provision.
- The Society does not normally make grants to cover room hire, although consideration will be given to cover room hire charges at De Morgan House.
- Applicants are expected to make economical travel arrangements where possible.
- The Society expects that organisers of conferences and activities who are seeking grants from the Society will invite both male and female speakers (or explain why this is not appropriate or possible) and give consideration to the provision of mechanisms to enable participation by people with children or family responsibilities, in line with the Society's policy on Women in Mathematics.
- The Society will not allow its limits for individual grant schemes to be exceeded by artificially sub-dividing an application into a number of separate requests under different headings.
- The Society considers it to be the responsibility of the institution to which the grant is paid to check receipts in accordance with its normal financial procedures.

The Society's committees that assess applications for grants are made up of mathematicians with a wide spread of research interests. Under most schemes, proposals are judged by the committees themselves, although they may seek advice. Each committee judges each application on its merits.

Any mathematician working in the UK is eligible to apply for a grant but for some schemes if they are not a member of the Society, then the application must be countersigned by a member who is prepared to support the application.

Summary of main grants and training schemes

Conference Grants (Scheme 1)

Grants are made to the organisers of conferences to be held in the UK. Priority is given to the support of meetings where an LMS grant can be expected to make a significant contribution to the viability and success of the meeting. Support of larger meetings of high quality is not ruled out, but for such meetings an LMS grant will normally cover only a modest part of the total cost.

Visitors to the UK (Scheme 2)

The aim of the Scheme is to provide grants to mathematicians based within the UK to partially support visitors to the UK; the visitors are expected to give lectures in at least three separate institutions.

Support of Joint Research Groups (Scheme 3)

The Scheme is to provide support for groups of mathematicians, working in at least three different locations (of which at least two must be in the UK), who have a common research interest and who wish to engage in collaborative activities. The grant award covers two years, and is expected that a maximum of four meetings (or an equivalent level of activity) will be held per academic year.

Research in Pairs (Scheme 4)

The Scheme is to provide small grants to UK-based mathematicians to help support short visits of intensive collaborative research with colleagues in other institutions, both in the UK and abroad.

Collaborations with Developing Countries (formally International Short Visits) (Scheme 5)

The Scheme is to provide grants to mathematicians within the UK to support visits for collaborative research, or academic activities that will benefit the country concerned. Countries considered to be eligible for Scheme 5 funding are those contained within (but not exclusively limited to) the International Mathematical Union Commission for Developing Countries (IMU CDC) Definition for Developing Countries - <https://www.mathunion.org/cdc/about-cdc/definition-developing-countries>

Computer Science Small Grants (Scheme 7)

The aim of the Scheme is to provide small grants to researchers based within the UK to help support visits for collaborative research at the interface of Mathematics and Computer Science.

Celebrating New Appointments (Scheme 9)

Grants are made to provide partial support for meetings held in the UK to celebrate the appointment of a new lecturer in mathematics at a UK institution. The aim of the grant award is to embed the new lecturer in their home institution and the local mathematical community, and to allow the new appointment to create useful and lasting relationships with the local mathematical community. It is expected that the new appointment themselves will present a lecture at the meeting.

British Colloquium for Theoretical Computer Science

The Society supports the annual meeting which provides a forum in which researchers in theoretical computer science can meet, present research findings, and discuss developments in the field. Specifically, the Society funds the costs of a speaker who is ordinarily from overseas and who is introduced as the 'LMS Keynote Lecturer in Discrete Mathematics'.

Caring Supplementary Grants

The Society recognises that parents and carers are sometimes prevented from attending conferences and meetings and making research visits because there is no provision for the extra costs incurred in caring for dependants. It is the LMS' view that institutions should make provision for caring costs but, while this is not largely the case, the Society is willing to make a supplementary grant as a contribution to the costs.

Grace Chisholm Young Fellowship

These fellowships aim to provide some support when a mathematical career is interrupted by family responsibilities, relocation of partner, or other similar circumstance, making possible some continuous mathematical activity and so enabling the fellow to be in a position to apply for posts when circumstances allow. Each holder will be based in a specific Mathematics Department in a University or Research Institute in the UK; the host is expected to provide an email address, use of library and IT facilities and access to research literature. The normal duration of a fellowship is one year.

Small Educational Grants

These grants support such activities as popular lectures, exhibitions, masterclasses, mathematical competitions, etc., that help to encourage joint mathematical ventures between higher education institutions and schools, or the development of projects that would improve the public image of mathematics.

Mathematics Teacher Continuing Professional Development (CPD) Grants

The Scheme is to provide opportunities for mathematics teachers to attend training which is specifically mathematical. Any application for a grant under this scheme must be made by a teacher of mathematics or Initial Teacher Education provider based in the UK. The grants are open to teachers of mathematics from primary school to A-Level or equivalent.

The grants are to support teacher attendance at one or two day conferences/events organised by professional mathematical organisations. The grants are also to assist providers of professional development to run conferences and courses that allow participants to further their professional development. The grants can also cover the costs of external trainers in schools or educational institutions.

Workshop-Symposia

The Society supports research workshops, which may be held anywhere in the UK and are an opportunity for a small group of active researchers to work together for a concentrated period on a specialised topic. Applications to support the development of research in an area not ready for a larger-scale application are welcomed; applications for partial support for larger events will only exceptionally be supported.

Mentoring African Research in Mathematics (MARM)

The aim of the programme is to enable all mathematicians in Africa to pursue academic careers of the highest standard. The Society believes that enhancing and developing academic research and research institutions in Africa will help ensure that pursuing world-class mathematical careers within Africa will be both achievable and a more attractive option than moving permanently to the developed world. Over time, the strengthening of the mathematical community within Africa will benefit not only the African community but mathematics as a whole. Grants are awarded for two-year academic partnerships between European and African institutions for activities including exchange visits, lectures and workshops, conferences, PhD supervision and mentoring support.

Support for Mathematics in Africa

The Society awards grants to contribute to the travel costs of postgraduates attending conferences in Africa, organised or supported by the African Mathematics Millennium Science Initiative (AMMSI).

Summary of grants and training schemes supporting Young Mathematicians and Early Career Researchers

LMS Prospects in Mathematics

The Society provides support for this annual event, primarily for final year undergraduates and Masters' Students who are considering applying for a PhD after they have completed their studies to discuss current research and potential career opportunities.

Undergraduate Research Bursaries in Mathematics

The Scheme aims to give experience of research to undergraduates with research potential to encourage them to consider a career in scientific research. Grants are awarded for a six-to-eight week summer research project undertaken with the guidance of a research supervisor.

Undergraduate Summer Schools

The goal of the Summer Schools is to introduce exceptional pre-final year undergraduates to research mathematics and, in particular, to make them think seriously about an academic career at this stage. The Summer Schools are a combination of short lecture courses with problem-solving sessions and colloquium style talks. Talks are given by lecturers mostly (though not exclusively) from the UK, including high-profile speakers. The Schools are for around 50 students and involve 10 lecturers. The event is hosted by a UK university for a period of 10 days in summer.

Grants for Meetings of Undergraduate Mathematical Societies

The Society is pleased to offer funds of up to £500 to support meetings of Undergraduate Mathematical Societies at UK universities to cover the cost of an invited speaker to the meeting, and towards the cost of a reception after the meeting.

LMS/Clay Mathematics Institute (CMI)/Heilbronn Research Schools Programme

The purpose of the Research Schools is to provide training for young researchers in a core area of mathematics. Students and post-docs can meet a number of leading experts in the topic as well as other young researchers working in related areas.

The series aims at the highest international standing of these research schools, allowing for support of both international lecturers and participants. The main criteria for funding are the topicality and the mathematical significance of the course material, the general alignment with the mission of the LMS and the Clay Mathematics Institute (CMI) and the likely demand for places nationally and internationally, and the standing of the proposed lecturers in the international mathematical community.

Postgraduate Research Conferences (Scheme 8)

The aim of this Scheme is to support postgraduate research conferences, organised by and for postgraduate research students, to be held in the UK.

Young Researchers in Mathematics Conference

The Society provides a grant for the Young Researchers in Mathematics Committee to help support the Young Researchers in Mathematics Conference, a mathematics conference specifically targeting early career researchers.

Travel Grants for Early Career Researchers

The Travel Grant Scheme provides partial support for UK-based early career researchers to attend conferences or undertake research visits either in the UK or overseas. Grant holders are early career researchers in mathematics, based in the UK, defined as a Master's student, PhD/research student or anyone who has completed their PhD in the last five years (excluding academic career breaks). The scheme is open to both members and non-members of the LMS.

Women in Mathematics Events

These events are aimed at academic mathematicians (from at least postgraduate level and up and may include undergraduates). The events are intended to help early career women mathematicians when considering the next stages in their careers and typically have included mathematical talks combined with panel discussions, social opportunities and networking. Individuals or groups are able to express interest in organising and hosting an event.

Girls in Mathematics Events

Events are aimed at schoolgirls, up to and including A-levels or equivalent, with mathematics as a main focus. Individuals or groups are able to express interest in organising and hosting an event.

ANNEX 6 - RESERVE FUNDS

For the purposes of financial planning the Society has chosen to define Relevant Funds to consist of Quoted Investments + Residential Properties + Cash at bank. The Society is in the process of rebuilding the investment portfolio and guaranteeing a real return, hence the aim of inflation + 4% as the primary long term target. In order to maintain its value in real terms, Council considers that the present level of the Relevant Funds should (if possible) be increased to at least £18m by 2025. At present Residential Properties are making a return of 4% through rent, and more than keeping pace with inflation.

The Society normally maintains £600k free reserve (operating reserve) cash at bank to ensure that there is enough working capital to stabilise the Society's finances by providing contingency against unexpected events, as well as to handle losses in income and large unbudgeted expenses.

General Fund

The General Fund is to provide for the general operation of the Society including its charitable activities not funded from Designated or Restricted Funds. Within the Society's reserves, the General Fund is deemed an expendable reserve to be used in pursuit of the Society's objectives as Council may from time to time determine. At present the fund exists to assure the availability of resources for the Society's grant schemes and other continuing charitable activities in future years. This manages the risk to the Society's ability to generate income to provide for such activities and offers a contingency against threats such as open access.

General Fund	£13,285,017
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Building and Development Reserve Fund

This reserve, originally built up for the Society to purchase or rent its own property was utilised in part in the purchase of a leasehold property. This reserve fund exists to maintain the property in a state of good repair as required by the Lease holder, including in the case of disaster recovery should any major incident affect the physical aspects of the Society's offices. The agreed purposes and recommended levels as from the next financial year would be:

Rehousing and re-establishing the administration for one year should De Morgan House (DMH) to be lost through fire etc.	£195,000
Costs of venue hire for all LMS meetings held in DMH	£15,000
Costs of re-establishing our work	£13,000
Dilapidations, were the Society to leave DMH	£23,000
External and Internal redecoration	£20,144
Major modifications and developments, unexpected repairs/replacement	£275,000
	£541,144

Publication Reserve Fund

This fund is to provide a reserve to meet the costs of producing and publishing the Society's LMS journals, including where the Society's income from these journals is unable to cover such commitments. It is intended that the reserve will be reviewed as circumstances arise each year. The agreed purposes and recommended levels are:

Repaying subscriptions income if we ceased to trade, and other commitments	£1,725,000
Buffer against over/under shooting the budget	£175,000
New ventures. Based on the costs of launching and producing a new journal	£750,000
Special strategic and commercial initiatives	£52,930
Insurance against breach of copyright and libel (including legal fees)	£275,000
	£2,977,930

Grants Payable Reserve Fund

This fund is set aside for grant awards to mathematical projects or activities which span a number of years. Such grants are reviewed annually and are paid once the recipient of the grant has provided a progress report with satisfactory performance of the project.

Grants awarded and approved by Council to be paid in future accounting periods	£14,000
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Undergraduate Research Bursaries (Harding)

This fund is set aside for grant awards to undergraduates with research potential. The fund has been set up for 3 years starting from the 2016/17 financial year	£36,735
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Special Activities Reserve Fund

Gifts and bequests received by the Society to be used for diverse activities in support of the Society's objectives	£32,283
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ANNEX 7 - AUDITOR'S REPORT

Opinion

We have audited the financial statements of The London Mathematical Society for the year ended 31 July 2018 which comprise the Statement of Financial Activities, the Balance Sheet, the Cash Flow Statement and notes to the financial statements, including a summary of significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including FRS 102 'The Financial Reporting Standard Applicable in the UK and Republic of Ireland' (United Kingdom Generally Accepted Accounting Practice).

In our opinion the financial statements:

give a true and fair view of the state of the charity's affairs as at 31 July 2018, and of its incoming resources and application of resources, for the year then ended; have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and have been prepared in accordance with the requirements of the Charities Act 2011.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the audit of the financial statements section of our report. We are independent of the charity in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern

We have nothing to report in respect of the following matters in relation to which the ISAs (UK) require us to report to you where:

- the trustees' use of the going concern basis of accounting in the preparation of the financial statements is not appropriate; or
- the trustees have not disclosed in the financial statements any identified material uncertainties that may cast significant doubt about the charity's ability to continue to adopt the going concern basis of accounting for a period of at least twelve months from the date when the financial statements are authorised for issue.

Other information

The other information comprises the information included in the annual report, other than the financial statements and our auditor's report thereon. The trustees are responsible for the other information. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material

inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

Matters on which we are required to report by exception

We have nothing to report in respect of the following matters where the Charities Act 2011 requires us to report to you if, in our opinion:

- the information given in the Trustees' Annual Report is inconsistent in any material respect with the financial statements; or
- the charity has not kept adequate accounting records; or
- the financial statements are not in agreement with the accounting records and returns; or
- we have not received all the information and explanations we required for our audit.

Responsibilities of trustees

As explained more fully in the trustees' responsibilities statement set out on page [x], the trustees are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the trustees determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the trustees are responsible for assessing the charity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the trustees either intend to liquidate the charity or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

We have been appointed as auditor under section 144 of the Charities Act 2011 and report in accordance with regulations made under section 154 of that Act.

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs (UK) we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error,

design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purposes of expressing an opinion on the effectiveness of the charity's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the trustees.
- Conclude on the appropriateness of the trustees' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the charity's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the charity to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Use of our report

This report is made solely to the charity's trustees, as a body, in accordance with Chapter 3 of Part 8 of the Charities Act 2011. Our audit work has been undertaken so that we might state to the charity's trustees those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to any party other than the charity and charity's trustees as a body, for our audit work, for this report, or for the opinion we have formed.



Neil Finlayson, Statutory auditor



Date: 29/10/2018

Devonshire House
60 Goswell Road
London
EC1M 7AD

Kingston Smith LLP is eligible to act as auditor in terms of Section 1212 of the Companies Act 2006.

ANNEX 8 - STATEMENT OF FINANCIAL ACTIVITIES

Page	
46	Statement of financial activities
47	Balance sheet
48	Cash flow statement
49	Accounting policies
54	Investment income
55	Income from other trading activities
55	Costs of raising funds
55	Charitable activities: Advancing the interests of mathematics
56	Charitable activities: Enabling mathematicians to undertake research and collaboration
57	Charitable activities: Disseminating mathematical knowledge - Publications
58	Charitable activities: Disseminating mathematical knowledge - Conference and meeting programmes
58	Charitable activities: Promoting mathematical research and its benefits
59	Governance and other committees' costs
59	Analysis of general support and governance costs
60	Allocation of support and governance costs by activity
61	Employment costs
62	Fixed asset investments
63	Gains and losses on investment assets
64	Tangible fixed assets
64	Debtors
64	Creditors and deferred income
65	Restricted funds
66	Unrestricted funds
67	Analysis of net assets between funds
67	Grants and contracts management account
67	Transactions with Trustees and connected persons
68	Comparison figures of each fund (2016/17 financial statements)

STATEMENT OF FINANCIAL ACTIVITIES

For the year ended 31st July 2018

	Notes	Unrestricted General Funds £	Designated Funds £	Restricted Funds £	2018 Total Funds £	2017 Total Funds £
Income and endowments:						
Donations and legacies		2,702	-	-	2,702	2,601
Income from charitable activities:						
Membership subscriptions		131,743	-	-	131,743	118,024
Publications – LMS Periodicals	7a	1,405,825	-	-	1,405,825	1,396,910
Publications – Ventures and Royalties	7c,d	261,460	312,579	-	574,039	617,305
Grants and contracts	22	53,046	-	-	53,046	61,894
Total income from charitable activities		1,852,074	312,579	-	2,164,653	2,194,133
Income from other trading activities	3	333,007	-	-	333,007	310,123
Income from Investments	2	478,440	84	7,345	485,869	460,156
Other income		5,270	-	-	5,270	3,357
Total Income		2,671,493	312,663	7,345	2,991,501	2,970,370
Expenditure:						
Costs of raising funds	4	317,500	-	-	317,500	269,402
Expenditure on charitable activities:						
Advancing the interests of mathematics	5	344,100	-	12,000	356,100	354,048
Enabling mathematicians to undertake research and collaboration	6	761,150	82,810	-	843,960	864,189
Disseminating mathematical knowledge:						
- Costs of publications	7b,c,d	355,040	205,029	-	560,069	555,524
- Conferences and meeting programmes	8	174,901	-	-	174,901	135,777
Promoting mathematical research and its benefits	9	378,896	-	-	378,896	382,684
Total expenditure on charitable activities		2,014,087	287,839	12,000	2,313,926	2,292,222
Total expenditure		2,331,587	287,839	12,000	2,631,426	2,561,624
Net income/(expenditure) before gains and losses on investment		339,906	24,824	(4,655)	360,075	408,746
Net gains on investment assets	15	312,266	-	5,032	317,298	878,119
Net Income for the year		652,172	24,824	377	677,373	1,286,865
Transfers between funds	19,20	179,476	(188,476)	9,000	-	-
Actuarial gain on defined benefit pension schemes	18	3,117	-	-	3,117	13,418
Net movement in funds for the year		834,765	(163,652)	9,377	680,490	1,300,283
Reconciliation of funds:						
Total funds brought forward		12,450,252	3,765,744	277,236	16,493,232	15,192,949
Fund balances carried forward		13,285,017	3,602,092	286,613	17,173,722	16,493,232

The comparative figures for each fund are shown in the notes to the accounts, (see note 24).

BALANCE SHEET


as at 31st July 2018

		2018		2017	
	Notes	£	£	£	£
Quoted Investment	14a	11,324,053		11,064,751	
Residential Property	14b	3,409,900		3,043,950	
			14,733,953		14,108,701
Leasehold Property	16	1,299,704		1,344,521	
Fixtures, Fittings and Equipment	16	29,928		12,991	
			1,329,632		1,357,512
			16,063,585		15,466,213
Medals in stock		3,061		3,061	
Debtors	17	285,633		236,729	
Cash at bank and in hand		1,870,449		1,190,581	
Bank Deposits		-		433,770	
		2,159,143		1,864,141	
Creditors	18	711,548		661,726	
Deferred Income	18	167,375		2,196	
		878,923		663,922	
Net current assets			1,280,220		1,200,219
Provision of Pension Liability	18		(170,083)		(173,200)
Total Net Assets			17,173,722		16,493,232
General Funds	20	13,285,017		12,450,252	
Designated Funds	20	3,602,092		3,765,744	
Restricted Funds	19	286,613		277,236	
			17,173,722		16,493,232

Approved on behalf of Council and authorised for issue on:



 Professor Robert Curtis
 (Treasurer)



 Date

The notes on pages 49 to 68 form part of these financial statements

Cash Flow Statement
For the year ended 31 July 2018

	2018		2017	
	£	£	£	£
Cash flow from operating activities				
Net movements in funds	680,490		1,300,283	
Deduct gains on investments (note 15)	(317,298)		(878,119)	
Add back re-invested gains (note 2)	56,650		58,215	
Add back investment management fees (note 4)	55,766		53,114	
Add back VAT on investment management fees	2,230		2,121	
Deduct investment income (note 2)	(485,869)		(460,156)	
Add back depreciation charge (note 16)	55,084		50,939	
(Increase)/decrease in debtors (note 17)	(48,904)		96,319	
(Decrease)/increase in creditors (note 18)	211,884		(127,027)	
	<hr/>		<hr/>	
Net cash (used in)/ provided by operating activities		210,033		95,689
Cash flow from Investing activities				
Purchase of tangible fixed assets (note 16)	(27,204)		(6,720)	
Purchase of fixed asset investments (note 14)	(422,546)		(703,301)	
Proceeds on disposal of fixed assets investments (note 14)	-		1,894	
Investment income (note 2)	485,869		460,156	
	<hr/>		<hr/>	
Net cash provided /(used in) by investing activities		36,119		(247,971)
		<hr/>		<hr/>
Change in cash and cash equivalent in the year		246,152		(152,282)
		<hr/>		<hr/>
Cash and cash equivalent at the beginning of the year				
Cash in bank and deposit		1,624,351		1,763,879
Cash held in investments		-		12,754
		<hr/>		<hr/>
		1,624,351		1,776,633
		<hr/>		<hr/>
Cash and cash equivalent at the end of the year				
Cash in bank and deposit		1,870,449		1,624,351
Cash held in investments		54		-
		<hr/>		<hr/>
		1,870,503		1,624,351
		<hr/>		<hr/>

NOTES TO THE FINANCIAL STATEMENTS

For the year ended 31st July 2018

1. Accounting Policies

The accounting policies adopted by the Society are as detailed below:

a) **Basis of accounting**

The financial statements have been prepared in accordance with Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) (effective 1 January 2015) – (Charities SORP (FRS 102)), the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) and the Companies Act 2006.

The London Mathematical Society meets the definition of a public benefit entity under FRS 102. Assets and liabilities are initially recognised at historical cost or transaction value unless otherwise stated in the relevant accounting policy note(s).

The trustees have assessed whether the use of going concern basis is appropriate and have considered possible events or conditions that might cast significant doubt on the ability of the Society to continue as a going concern. The trustees have made this assessment for a period of at least one year from the date of approval of the financial statements. In particular the trustees have considered the Society's forecasts and projections and have taken account of pressures on membership subscription, publication and investment income. After making inquiries the trustees have considered that there is a reasonable expectation that the Society has adequate resources to continue in operational existence for the foreseeable future. The Society therefore continues to adopt the going concern basis in preparing its financial statements.

The financial statements are prepared in sterling, which is the functional currency of the company. Monetary amounts in these financial statements are rounded to the nearest pound.

An explanation and reconciliation of how the transition has affected the comparative balances is provided in the notes to the financial statements.

b) **Judgements and key sources of estimation uncertainty**

In the application of the Society's accounting policies, the trustees are required to make judgement, estimates and assumptions about the carrying amount of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from the estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised where the revision affects only that period, or in the period of the revision and future periods where the revision affects both current and future periods.

The most significant estimates and assumptions which affect the carrying amount of assets and liabilities in the accounts relate to:

- Useful Economic Lives- The annual depreciation charge for property, fixture, fittings and equipment is sensitive to change in the estimated useful economic lives and residual value of assets. These are reassessed annually and amended where necessary to reflect current circumstances.
- Defined benefit scheme pension liability can be estimated based on recommended modeller provided by USS. For more details, see note 1p.

c) **Financial Instruments**

The Society has elected to apply the provision of Section 11 'Basic Financial Instrument's and Section 12 'Other Financial Instruments Issues' of FRS 102 to all of its financial instruments. Financial Instruments are recognised in the Society's balance sheet when the Society becomes party to the contractual provisions of the instrument. Financial assets and liabilities are offset, with the net amounts presented in the financial statements, when there is a legally enforceable right to set off the recognised amounts and there is an intention to settle on a net basis or to realise the asset and settle the liability simultaneously.

With the exceptions of prepayments and deferred income all other debtor and creditor balances are considered to be basic financial instruments under FRS 102. (See notes 17 and 18 for details)

NOTES TO THE FINANCIAL STATEMENTS

For the year ended 31st July 2018

1. Accounting Policies (continued)

d) Members' Subscriptions

Subscription income from members is recognised in the year to which it relates. No account is taken of members' subscriptions in arrears at the balance sheet date. No time apportionment of subscriptions is calculated as members who join or leave during the year are not entitled to partial payments or refunds.

e) Donations

Cash donations are credited to the General Fund in the year of receipt but donations in kind are not recognised in these financial statements.

f) Fixed Assets

Depreciation is provided on all tangible fixed assets at rates calculated to write off, on a straight-line basis, the cost less estimated residual value over their expected useful lives as follows:

Leasehold Property	Over 50 years
Fixtures, Fittings and Office Equipment	20%
Computer equipment	33.33%

The Society operates a policy of capitalising assets whose unit cost exceeds £1,000, with expenditure below this level written off as incurred.

g) Investments

The Society may invest up to 30% of its relevant assets in residential property, as valued at the time of purchase, with the remainder given over to the Society's investment managers. Investment in such residential property will be directly managed by the Society rather than by the investment managers. The percentage calculation excludes the value of De Morgan House, though this could be reviewed at any point. Also excluded are any investments made by the investment managers in the property area of asset classes.

• Quoted investments

All quoted investments are valued at their market value at the balance sheet date, giving rise to unrealised gains and losses which are included in the Statement of Financial Activities. The market value is determined as follows:

- i) Listed securities are valued at mid-market value ruling at the balance sheet date;
- ii) Unit trust and managed fund investments are stated at the mid-point of the latest prices quoted by the investment managers immediately prior to the balance sheet date;
- iii) Investments held in foreign currencies have been valued on the relevant basis and translated into sterling at the rate ruling at the balance sheet date.

The portfolio is invested in a range of equity, cash and fixed-interest investments in both UK and overseas markets. The key objective of the Society's portfolio is to produce a real return (capital growth) of at least 4% pa, and to provide an investment income determined by 'total return policy' of 3.5% pa (based on Yale model).

The Society in its total returns policy treats all cash withdrawals from the investment portfolio as investment income. This is analysed in the notes to the financial statements as investment income split between the various categories of investment based on information provided by the investment managers and the proportion of total return drawn down relating to gains. The balance of unrealised gains and losses on revaluation of investments, and realised gains and losses arising on disposal of investments are separately identified in the notes to the Financial Statements and on the SoFA.

• Residential property investment

As a safeguard against possible poor performance of the stock exchange, the Society expanded its investments portfolio to include residential property and owns three long lease residential properties in the Central London area, all of which are rented out. The rental derived is shown on the SoFA under 'Investment Income'. The growth in the value of the Society's residential property investment will be shown in the SoFA as *Gains on investment assets*. The primary long-term target of the Society's residential property is to produce a yield of 4% pa and to increase in capital value by at least the rate of inflation.

NOTES TO THE FINANCIAL STATEMENTS

For the year ended 31st July 2018

1. Accounting Policies (continued)

h) Publications

- i) Publications income from LMS journals is recorded based on an estimated accrued basis; other publications income is treated on a cash basis which is considered to be the most appropriate and prudent approach given the information available.
- ii) Income from the Society's contracts with publishers for the production, distribution and sales of its journals is determined as the best estimate for that proportion of the income (i.e. subscriptions less costs of production, distribution, sales and commission) relating to the number of issues published before the Balance Sheet date.
- iii) No account has been taken of costs incurred or sales proceeds received in respect of publication after the Balance Sheet date.
- iv) No valuation for accounting purposes is taken of any stocks of publications unsold at the Balance Sheet date.
- v) The cost of publishing rights and subscribers' lists are written off in the year of acquisition.
- vi) Royalties are taken into the Statement of Financial Activities as declared due by the relevant publishers.

i) Joint Ventures

The results of joint ventures are included in the accounts up to the year- end indicated.

j) Grants and Contracts

The Society has been awarded contracts and grants for some of its activities. These comprise: a contribution from IMU to support mentoring activities for mathematicians in Africa; shared costs of some activities with sister societies. The income and expenditure relating these are handled through this Fund.

k) Recognition of grant liabilities

Where the Society has contractual or constructive obligations to make grant payments these amounts are accrued in the accounts in accordance with the requirements of the SORP. The liability will be recognised within the year the grant is awarded. The unpaid grant commitments should normally be claimed by the end of the following financial year. However, the claim period may need to be extended for a further year (award year + 2) if the grant cannot be claimed by the end of the year following the award due to constraints on the start or end date of a grant, or due to other circumstances outside the control of the Society.

The Society also awards some grants with conditions for payment being a specific level of service or specific output to be delivered. Such grant awards (commitments) will be reserved in the Designated funds, and the grants are only recognised in the SoFA once the recipient of the grant has provided evidence of the specific service or output. Such grants are therefore reviewed annually and the grant payments subject to the condition of a progress report with satisfactory performance. If the project spans a number of years and satisfactory progress reports are received after year one, the first stage of the grant will be released from the Designated fund and that part of the grant expenditure will be recognised in the SoFA at that point.

Grants unclaimed by the end of award year +2 will be released back to the Society's general funds.

l) Grants payable

Grants payable out of existing revenues are provided for in full in the accounts. Those payable out of future resources are held in the Grant payable Reserve Fund (see also note 1(i) (iii)).

m) Taxation

The Society is a registered charity and no liability to taxation arises on the results of its business activities in support of its charitable purposes.

The Society has partial exempt status in respect of VAT, based on the split of its business and non-business activities. The proportion of VAT that cannot be recovered because of partial or fully exempt status of the activity is redistributed to the activities. The basis on which irrecoverable VAT have been allocated to the activities are set out in note 12.

n) Foreign currencies

Monetary assets and liabilities denominated in foreign currencies are translated at the rate of exchange ruling at the Balance Sheet date. Transactions in foreign currencies are recorded at the rate ruling at the date of the transaction. All differences are taken to the Statement of Financial Activities.

o) Medals in stock

The medal stock for the prize is stated at the lower of cost and net realisable value.

NOTES TO THE FINANCIAL STATEMENTS

For the year ended 31st July 2018

1. Accounting Policies (continued)

p) Pension costs

The institution participates in Universities Superannuation Scheme. The scheme is a hybrid pension scheme, providing defined benefits (for all members), as well as defined contribution benefits. The assets of the scheme are held in a separate trustee-administered fund. Because of the mutual nature of the scheme, the assets are not attributed to individual institutions and a scheme-wide contribution rate is set. The institution is therefore exposed to actuarial risks associated with other institutions' employees and is unable to identify its share of the underlying assets and liabilities of the scheme on a consistent and reasonable basis. As required by Section 28 of FRS 102 "Employee benefits", the institution therefore accounts for the scheme as if it were a wholly defined contribution scheme. As a result, the amount charged to the profit and loss account represents the contributions payable to the scheme. Since the institution has entered into an agreement (the Recovery Plan) that determines how each employer within the scheme will fund the overall deficit, the institution recognises a liability for the contributions payable that arise from the agreement (to the extent that they relate to the deficit) and therefore an expense is recognised.

The total movement to the profit & loss account is a gain of £3,117 (2017: gain of £13,418) as shown in note 18.

The latest available complete actuarial valuation of the Retirement Income Builder section of the Scheme is at 31 March 2014 (the valuation date), which was carried out using the projected unit method. The valuation as at 31 March 2017 is underway but not yet completed.

Since the institution cannot identify its share of Retirement Income Builder Section of the Scheme assets and liabilities, the following disclosures reflect those relevant for the section as a whole.

The 2014 valuation was the third valuation for USS under the scheme-specific funding regime introduced by the Pensions Act 2004, which requires schemes to adopt a statutory funding objective, which is to have sufficient and appropriate assets to cover their technical provisions. At the valuation date, the value of the assets of the Scheme was £41.6 billion and the value of the Scheme's technical provisions was £46.9 billion indicating a shortfall of £5.3 billion. These figures will be revised once the 2017 Scheme Valuation is complete.

Defined benefit liability numbers for the Scheme for accounting purposes have been produced using the following assumptions as at 31 March 2017 and 2018.

	2018	2017
Discount rate	2.64%	2.57%
Pensionable salary growth	n/a	n/a
Pension Increases (CPI)	2.02%	2.41%

The main demographic assumption used relates to the mortality assumptions. These assumptions have been updated for the 31 March 2018 accounting position, based on updated analysis of the Scheme's experience carried out as part of the 2017 actuarial valuation. The mortality assumptions used in these figures are as follows:

	2018	2017
Mortality base table	<u>Pre-retirement:</u> 71% of AMC00 (duration 0) for males and 112% of AFC00 (duration 0) for females.	<u>Pre-retirement:</u> 98% of SAPS S1NA "light" YOB unadjusted for males.
	<u>Post retirement:</u> 96.5% of SAPS S1NMA "light" for males and 101.3% of RFV00 for females.	<u>Post retirement:</u> 99% of SAPS S1NA "light" YOB with a -1 year adjustment for females.
Future improvements to mortality	CMI_2016 with a smoothing parameter of 8.5 and a long term improvement rate of 1.8% pa for males and 1.6% pa for females.	CMI-2014 with a long term rate of 1.5% p.a.

The current life expectancies on retirement at age 65 are:

	2018	2017
Males currently aged 65 (years)	24.5	24.4
Females currently aged 65 (years)	26.0	26.6
Males currently aged 45 (years)	26.5	26.5
Females currently aged 45 (years)	27.8	29.0

	2018	2017
Scheme assets	£63.6bn	£60.0bn
Total scheme liabilities	£72.0bn	£77.5bn
FRS 102 total scheme deficit	£8.4bn	£17.5bn
FRS 102 total funding level	88%	77%

NOTES TO THE FINANCIAL STATEMENTS

For the year ended 31st July 2018

1. Accounting Policies (continued)

a) General Fund

The Unrestricted reserves are analysed between the General Fund and other Designated Funds. The General Fund, detailed in note 19 to the financial statements, is to provide for the general operation of the Society including its charitable activities not funded from Designated or Restricted Funds. Within the Society's reserves the General Fund is deemed an expendable reserve to be used in pursuit of the Society's objectives as Council may from time to time determine. At present it is managed to provide the income to be used to ensure the availability of resources for its grant schemes and other continuing charitable activities in future years.

r) Designated Funds

The Unrestricted reserves are analysed between general and designated funds. The Trustees have created the following designated funds:

(i) Building & Development Reserve Fund

This reserve is to meet the costs of (a) consequences of the temporary loss of De Morgan House, (b) periodic internal and external decoration and maintenance, (c) major modifications, developments or repairs.

(ii) Publication Reserve Fund

This reserve is to meet the costs of (a) breaches of copyright or libel actions against the Society, (b) special strategic and commercial initiatives (c) exploration and start-up costs of new ventures (d) consequential costs should the Society to cease publishing, (e) unpredictable annual fluctuations in the surplus.

(iii) Grants Payable Reserve Fund

This fund has been established to cover grants awarded and approved by Council to be paid in future accounting periods, subject to available finance and satisfactory report.

(iv) Special Activities Reserve Fund

This fund contains gifts and bequests received by the Society to be used for diverse activities in support of the Society's objectives.

(v) Undergraduate Research Bursaries (Harding) Reserve Fund

This fund is set aside for grant awards to undergraduates with research potential. The fund has been set up for 3 years from 2016/17 financial year.

(vi) Compositio Fund

This fund holds the transaction relating to, and any year-end excess of income over expenditure, relating to the Society's joint venture with the Foundation Compositio to produce the journal Compositio.

s) Restricted Funds

The income of these restricted funds is to be used for the following purposes:

i) The Berwick Prize Fund

To support the Annual prize for mathematical work published by the Society

(ii) De Morgan Medal Fund augmented by the Sir Joseph Larmor Prize Fund

To support the award of the De Morgan Medal and the Larmor Prize, awarded every three years.

(iii) Lord Rayleigh's Fund

To support the general activities of the Society.

(iv) J. H. C. Whitehead Prize Fund

To support the cost of the Annual prizes awarded for lecturing and mathematical work.

(v) Fröhlich Fund

To support the cost of the Annual prizes awarded for lecturing and mathematical work.

(vi) Shephards Prize Fund

To support mathematics with a strong intuitive component which can be explained to those who have little or no knowledge of university mathematics.

(vii) A. J. Cunningham Research Fund

To support the cost of publication of work on the factorisation of large numbers.

(viii) Zeeman Fund

To support the cost of Undergraduate Research Bursaries named in honour of Professor Sir Christopher Zeeman.

NOTES TO THE FINANCIAL STATEMENTS
For the year ended 31st July 2018

1. Accounting Policies (continued)

t) Support and governance costs

Support costs are those functions that assist the work of the charity but do not directly undertake charitable activities. Support costs include back office costs, finance, personnel, payroll and governance costs which support the Society's Mathematical Sciences programmes and activities. The Governance costs include external audit, legal advice and the costs of trustee and committee meetings, as well as costs associated with constitutional and statutory requirements. Support and governance costs have been allocated between the costs of raising funds and charitable activities. The bases on which support and governance costs have been allocated to activities are set out in note 12.

u) Employee benefits

Termination benefits are recognised immediately as an expense when the Society is demonstrably committed to terminate the employment of an employee through, for example, redundancy, or to provide termination benefits.

2. Investment Income

	Unrestricted	Designated	Restricted	Total
2018				2018
	£	£	£	£
a) Investment income receivable:				
Total returns/ Unit Trust Distribution <i>(Bond interest, Equities dividends, etc.)</i>	423,931	-	7,183	431,114
Re-invested total returns	(56,650)	-	-	(56,650)
Net investment income receivable	367,281	-	7,183	374,464
b) Residential property rental income	107,322	-	-	107,322
c) Interest receivable (Treasury Reserve and Bank deposits)	3,837	84	162	4,083
Total investment income 2018	478,440	84	7,345	485,869
2017	Unrestricted	Designated	Restricted	Total
	£	£	£	2017
				£
a) Investment income receivable:				
Total returns/ Unit Trust Distribution <i>(Bond interest, Equities dividends, etc.)</i>	410,961	-	6,550	417,511
Re-invested total returns	(58,215)	-	-	(58,215)
Net investment income receivable	352,746	-	6,550	359,296
b) Residential property rental income	99,112	-	-	99,112
c) Interest receivable: (Treasury Reserve and Bank deposits)	1,277	160	311	1,748
Total investment income 2017	453,135	160	6,861	460,156

NOTES TO THE FINANCIAL STATEMENTS
For the year ended 31st July 2018

3. Income from other trading activities

	2018	2017
	£	£
a) DMH Conference facilities	225,430	203,789
b) DMH Rental income	101,427	98,550
c) Advertising in Newsletter	6,150	7,784
Total	333,007	310,123

4. Costs of raising funds

	2018	2017
	£	£
a) Conference facilities		
General expenditure	33,811	21,848
Apportioned support and governance costs	118,915	100,439
	<hr/> 152,726	<hr/> 122,287
b) Service for tenants	62,405	55,325
c) Investment Management fees	55,766	53,114
d) Residential Investment Property costs	46,603	38,676
Total	317,500	269,402

5. Charitable activities: Advancing the interests of Mathematics

	2018	2017
	£	£
Members' services:		
LMS Newsletter	23,719	26,489
Other costs	8,978	9,657
Unrecoverable subscriptions	1,239	1,820
	<hr/> 33,936	<hr/> 37,966
Activities to support Women in Mathematics	28,002	4,509
Activities to support Maths -Computer Sciences	897	899
Library, binding and archives	14,221	5,578
EMS, IMU, ICIAM subscriptions & ICM costs	13,927	18,222
Prizes	18,714	19,512
Apportioned support and governance costs (note 12)	246,403	267,362
Total	356,100	354,048

NOTES TO THE FINANCIAL STATEMENTS

For the year ended 31st July 2018

6. Charitable activities: Enabling Mathematicians to undertake research and collaboration

	2018	2017
	£	£
Grant Schemes		
Research Grants (Schemes 1 – 5)	355,823	325,225
Research Workshop Grants	7,000	15,479
Support for Mathematics in Africa	5,943	6,000
Early Career Support (Schemes 8 and 9/ UMS/etc)	52,946	44,307
Prospects in Mathematics	7,000	7,000
Summer School Grants	33,500	33,500
Postgraduate Mobility Grants	-	66,600
Computer Science Grants	3,692	5,185
Teachers CPD Grants	9,999	3,952
Small Educational Grants	5,884	3,986
Women in Mathematics Event Grants	7,000	7,000
Child care and related Grants	1,299	1,722
ECM/ICM travel Grants	11,345	-
	<hr/> 501,431	<hr/> 519,956
Less: cancellation and refunds	(63,492)	(56,143)
	<hr/> 437,939	<hr/> 463,813
Mentoring African Research in Mathematics (MARM) (Restricted)	-	20,000
INI/ICMS/ACME Grants (Designated)	51,000	58,000
Undergraduate Bursaries (Designated)	31,810	31,455
Ad hoc Grants to Mathematical Bodies (UK & International)	11,001	16,593
Charitable giving of LMS rooms	39,640	40,654
Training (Research School)	49,562	18,263
Apportioned support and governance costs (note 12)	223,008	215,411
Total	<hr/> 843,960 <hr/>	<hr/> 864,189 <hr/>

ANALYSIS OF GRANT AWARDS

	2018	2017
	£	£
a) Grants: contractual commitments		
University of Cambridge (INI grant)	35,000	35,000
Heriot- Watt University (ICMS grant)	16,000	16,000
Royal Society (ACME grant)	-	7,000
University of Glasgow (Summer School grant)	33,500	-
University of Manchester (Summer School grant)	-	33,500
	<hr/> 84,500	<hr/> 91,500
b) Other grant awards to institutions *	481,882	450,210
c) Other grant awards to individuals	28,860	104,294
	<hr/> 595,242 <hr/>	<hr/> 646,004 <hr/>

* Grant awards to each institution can be up to a maximum of £30k

GRANT REFUNDS AND CANCELLATION

	2018	2017
	£	£
Grant refunds	37,116	26,256
Grants not taken up (out of date)	26,376	29,887
Total grant refunds and cancellation	<hr/> (63,492) <hr/>	<hr/> (56,143) <hr/>

MOVEMENT IN OBLIGATION GRANT COMMITMENTS

	2018	2017
	£	£
Grant recognised at the start of the year	235,253	215,115
New grants charged to the SoFA in year	595,242	646,004
Grants paid during the year	(598,176)	(595,979)
Grants not taken up ('out of date')	(26,376)	(29,887)
Amount of grant recognised at the end of the year	<hr/> 205,943 <hr/>	<hr/> 235,253 <hr/>

NOTES TO THE FINANCIAL STATEMENTS

For the year ended 31st July 2018

7. Charitable activities: Disseminating Mathematical Knowledge - Publications

	2018	2017
	£	£
a) Net Income from LMS journals	1,405,825	1,396,910
b) Direct costs of Publications		
<i>Journal of Computation and Mathematics</i>	(1,863)	(7,834)
Other Operational Costs	(33,088)	(5,814)
	(34,951)	(13,648)
Net LMS periodicals surplus before Support and governance costs	1,370,874	1,383,262
Apportioned support and governance costs (note 12)	(319,846)	(297,280)
Net LMS periodicals surplus after Support and governance costs	1,051,028	1,085,982
c) Ventures & Royalties (net income)		
<i>Nonlinearity</i>	150,407	152,654
Russian journals (Turpion/RAS/LMS joint venture)	48,929	49,131
TMMS (AMS/LMS joint venture)	16,327	19,658
LMS Books and Royalties	17,584	15,402
	233,247	236,845
<i>Compositio</i>		
Profit share & Management fee (see 7d)	107,550	114,667
Costs of <i>Compositio</i> (LMS - only)	(236)	(5)
	107,314	114,662
<i>Mathematika</i>	28,206	21,202
NET PUBLICATIONS SURPLUS	1,419,795	1,458,691

The Society was involved in the following publishing ventures in the year:

- (I) ***Nonlinearity*** – the journal co-owned with the IOP Publishing Ltd and is produced at the IOP Publishing Ltd, Temple Circus, Temple Way, Bristol BS1 6HG
- (II) The three translation journals ***Russian Mathematical Surveys***, ***Sbornik: Mathematics and Izvestiya: Mathematics*** are owned and managed jointly by the Department of Mathematics Russian Academy of Sciences, Turpion Ltd and the LMS. The main business address is Turpion Ltd, c/o IOP Publishing Ltd, Temple Circus, Temple Way, Bristol BS1 6HG.
- (IV) The journal ***Transactions of the Moscow Mathematical Society (TMMS)*** is managed on a day-to-day basis at the American Mathematical Society, 201 Charles Street, Providence, RI 02904 - 2294, USA.
- (V) ***Compositio Mathematica*** – the journal is wholly owned by Foundation Compositio Mathematica & managed by the LMS.
- (VI) ***Mathematika*** – the journal is wholly owned by UCL and managed by the LMS.

d) <i>Compositio</i> management account	2018	2017
	£	£
Income	312,579	358,228
Expenditure		
Direct costs	(45,081)	(67,008)
Profit share to <i>Compositio</i> Foundation	(159,948)	(176,553)
	(205,029)	(243,561)
Net <i>Compositio</i> surplus before LMS fees and Profit share	107,550	114,667
Management fee to LMS	(39,000)	(39,000)
Profit share to LMS	(68,550)	(75,667)
Balance C/fwd on <i>Compositio</i> Fund	-	-

NOTES TO THE FINANCIAL STATEMENTS

For the year ended 31st July 2018

8. Charitable activities: Disseminating Mathematical Knowledge – Conference and meeting programmes

	2018		2017	
	£	£	£	£
Society meetings and regional workshops	38,260		28,316	
Hardy Lecturer	6,551		-	
Mary Cartwright Lecture	4,291		955	
Forder/Aitken Lecturer	3,347		-	
Invited Lectures	7,619		7,004	
		60,068		36,275
Apportioned support and governance costs (note 12)		114,833		99,502
Total		174,901		135,777

9. Charitable activities: Promoting Mathematical Research & its benefits

	2018		2017	
	£	£	£	£
Policy				
CMS	16,455		13,018	
Communication and External Relations	33,104		35,735	
Annual dinner	4,109		7,275	
Subscriptions to UK organisations	2,030		1,990	
Research Policy Activities	1,051		627	
		56,749		58,645
Education and young people, public engagement				
Holgate Lecturers	3,150		3,600	
Popular Lectures	11,571		9,390	
Other educational activities	4,801		3,488	
Knowledge Transfer	-		(4,855)	
		19,522		11,623
Promoting Women in Mathematics activities		107		93
Apportioned support and governance costs (note 12)		302,518		312,323
Total		378,896		382,684

NOTES TO THE FINANCIAL STATEMENTS
For the year ended 31st July 2018

10. Governance and other committees' costs

	2018		2017
	£	£	£
Professional services			
Solicitors fees	7,496		630
Audit and accountancy fees	10,500		10,000
Audit and accountancy fee over/under - accrual	1,995		850
Other professional fees	35		35
	<hr/>	20,026	<hr/>
			11,515
Costs of meetings (Catering/Accommodation/Travel/Subsistence)			
Governance (Council/F&GPC/Nomination, etc.)	27,363		39,992
Retreat	-		8,016
Other Committees	22,894		29,818
	<hr/>	50,257	<hr/>
			77,826
Election of Trustees		4,328	4,343
General office and staff costs (<i>apportioned</i>) (note 11)		222,790	191,931
Total		<hr/> 297,401 <hr/>	<hr/> 285,615 <hr/>

11. Analysis of general support and governance costs

2018	Governance and Committee related	Other general support	Total 2018
	£	£	£
Staff costs	150,080	829,317	979,397
Office and Premises costs	40,494	134,427	174,921
IT costs	12,877	77,808	90,685
Depreciation	13,936	41,148	55,084
Irrecoverable VAT	5,403	15,359	20,762
Professional services	20,026	-	20,026
Costs of meetings	50,257	-	50,257
Elections of Trustees	4,328	-	4,328
Total 2018	<hr/> 297,401 <hr/>	<hr/> 1,098,059 <hr/>	<hr/> 1,395,460 <hr/>

2017	Governance and Committee related	Other general support	Total 2017
	£	£	£
Staff costs	138,767	813,237	952,004
Office and Premises costs	27,487	118,671	146,158
IT costs	10,064	88,577	98,641
Depreciation	11,478	39,461	50,939
Irrecoverable VAT	4,135	12,770	16,905
Professional services	11,515	-	11,515
Costs of meetings	77,826	-	77,826
Elections of Trustees	4,343	-	4,343
Total 2017	<hr/> 285,615 <hr/>	<hr/> 1,072,716 <hr/>	<hr/> 1,358,331 <hr/>

NOTES TO THE FINANCIAL STATEMENTS

For the year ended 31st July 2018

12. Allocation of support and governance costs by activity

2018	Direct Staff	General Office	General Management and Finance	Governance and Committee	Total 2018
	£	£	£	£	£
Raising funds					
Conference facilities (DMH)	47,390	60,747	10,345	433	118,915
Services for tenants (DMH)	7,386	46,119	1,775	434	55,714
Managing Residential Property	9,162	2,058	2,569	434	14,223
Total support costs for raising funds	63,938	108,924	14,689	1,301	188,852
Charitable activities					
• Advancing the interest of Mathematics	88,814	43,720	54,649	59,220	246,403
• Enabling Mathematicians to undertake research and collaboration	80,370	32,686	50,732	59,220	223,008
• Disseminating Mathematical Knowledge – Publications	156,583	50,039	54,004	59,220	319,846
• Disseminating Mathematical Knowledge – Conference and meeting programmes	22,568	7,814	25,231	59,220	114,833
• Promoting Mathematics research and its benefits	147,448	44,985	50,865	59,220	302,518
Total support costs for Charitable activities	495,783	179,244	235,481	296,100	1,206,608
Total 2018	559,721	288,168	250,170	297,401	1,395,460

2017	Direct Staff	General Office	General Management and Finance	Governance and Committee	Total 2017
	£	£	£	£	£
Raising funds					
Conference facilities (DMH)	44,770	44,364	10,825	480	100,439
Services for tenants (DMH)	8,818	43,741	2,286	480	55,325
Managing Residential Property	7,270	1,599	1,340	480	10,689
Total support costs for raising funds	60,858	89,704	14,451	1,440	166,453
Charitable activities					
• Advancing the interest of Mathematics	104,185	45,760	60,582	56,835	267,362
• Enabling Mathematicians to undertake research and collaboration	77,504	28,765	52,307	56,835	215,411
• Disseminating Mathematical Knowledge – Publications	133,813	55,999	50,633	56,835	297,280
• Disseminating Mathematical Knowledge – Conference and meeting programmes	13,934	4,847	23,886	56,835	99,502
• Promoting Mathematics research and its benefits	150,174	45,074	60,240	56,835	312,323
Total support costs for Charitable activities	479,610	180,445	247,648	284,175	1,191,878
Total 2017	540,468	270,149	262,099	285,615	1,358,331

Basis of apportionment

Support costs include (a) **Staff costs** (salaries, benefits, training, H&S, recruitment, etc. of staff directly attributable to each of the above Society's activities); (b) **General Office Costs** (rent, rates, services, cleaning, equipment, maintenance, telephones, postage, equipment, stationery, etc., depreciation and Irrecoverable VAT, and IT costs such as computer hardware and software, network, internet access, websites, software development, etc.), (c) **General management and finance** (cost of services that cannot be directly attributed to an activity, i.e. general accounting and financial controls, HR and Executive Secretary's general management, etc.) (d) **Governance costs** (costs of meetings, trustees' expenses, and costs associated with constitutional and statutory requirements).

The costs of these are attributed across all the activities of the Society in proportion to (a) salary or f.t.e., (b) space occupied in De Morgan House, and (c) f.t.e. respectively, based on a time analysis undertaken by all staff.

NOTES TO THE FINANCIAL STATEMENTS

For the year ended 31st July 2018

12. Allocation of support and governance costs by activity (continued)

Support and governance costs have been allocated between the costs of raising funds & charitable activities as:

- **Direct staff costs** = staff time directly attributable to each of the above Society's activities in proportion to the salary or pro rata to staff f.t.e. on a time analysis undertaken by all staff.
- **General Office costs** = (a) apportioned Building, Office and IT costs of staff who are directly attributable to (deal with) each of the above Society's activities as per staff time analysis and in proportion of the office space occupied, and (b) indirect costs, which are re-apportioned staff costs for those dealing with Building, Office and IT management.
- **General management and finance** = the costs of services that cannot be directly attributed to an activity (i.e. general accounting and financial controls, HR and Executive Secretary's general management, etc.) are attributed to each area of activity on the same basis as the original elements (i.e. staff time and space occupied, IT and office use etc.) , which includes re-apportioned costs of the office space occupied, the IT costs and other general office costs in dealing with HR, finance and general management.
- **Governance and committee costs** = apportionment made on the basis of (a) salary or pro rata to staff F.T.E. on a time analysis undertaken by all staff (b) meetings and staff office space occupied in De Morgan House in relation to governance and committee functions, and (c) Invoices and claims for catering, accommodation, travel and subsistence regarding governance and committee meetings, as well as costs of professional services (i.e. external audit, legal advice, etc.).

The Society has partial exempt status in respect of VAT, based on the split of its business and non-business activities. The proportion of VAT that cannot be recovered because of partial or fully exempt status of the activity is redistributed to the activities on the same basis as the original elements (i.e. staff time and space occupied, IT and office use etc.), under General Office costs.

Support costs for each area of the above activities can be higher or lower than last year due to staff time allocation. This changes from year to year and will have an effect on direct staff costs, general office costs, general management costs and governance costs.

13. Employment Costs

	2018 £	2017 £
Total employment costs of all staff including taxable benefits for the year comprise:		
Salaries and Wages	743,839	719,576
Employer's National Insurance Contributions	82,494	79,737
Employer's Pension Contributions	128,280	121,426
Total	954,613	920,739

* This represents the costs of organisational restructuring.

The total employment costs (Salaries/NIC /Pension) for the Executive Management Team amounted to £393,407 (2017: £382,152). This team is considered to Key Management Personnel and consists of Executive Secretary, Head of Finance, Head of Society Business, Head of Conference and Building.

The number of employees earning £60,000 per annum or more was:

	2018 No.	2017 No.
£60,000 - £70,000	2	2
£90,000 - £100,000	-	-
£110,000 - £120,000	1	1

The pension payments for the above members of staff amounted to £43,988 (2017: £42,663). These contributions were paid into a defined benefits pension scheme.

The average number of employees over the year (and full time equivalent) was:

	2017/2018		2016/2017	
	Total	FTE	Total	FTE
Management and administration	14.2	12.7	14.4	12.4
Publishing and editorial	3.0	2.5	2.6	2.1
Total	17.2	15.2	17	14.5

NOTES TO THE FINANCIAL STATEMENTS
For the year ended 31st July 2018

14. Fixed Asset Investments

	£	2018 £	£	2017 £
a) Quoted investments				
	<i>Investment Assets in the UK</i>	<i>Investment Assets outside the UK</i>	<i>Total</i>	<i>Total</i>
	<hr/>	<hr/>	<hr/>	<hr/>
Total Market value at 31st July 2018	6,228,229	5,095,824	11,324,053	11,064,751
	<hr/>	<hr/>	<hr/>	<hr/>

In the prior year, £6,528,203 of investment assets were in the UK with the remaining £4,536,548 being outside the UK.

Reconciliation of opening and closing market values:

Market value at 1 st August 2017	11,064,751	10,331,929
Additions at cost	56,596	58,301
Disposals proceeds	-	(1,894)
Realised & Unrealised gains (note 15a)	317,298	802,619
Movement in cash	(114,592)	(126,204)
	<hr/>	<hr/>
Total Market value at 31st July 2018	11,324,053	11,064,751
	<hr/>	<hr/>
Analysis by Fund:		
Restricted Funds	223,926	214,712
Unrestricted Funds	11,100,127	10,850,039

**% value of
portfolio**

Details of material investments are as follows:

Old Mutual UK Alpha Fund	5.3%
Schroder Global Emerging Markets Fund	5.5%
Majedie UK Equity Fund	5.7%
Vanguard S&P 500 ETF	6.9%
Schroder Charity Equity Fund	7.8%
Schroder QEP Global Core Fund	9.8%

b) Residential Property	2018 £	2017 £
	<hr/>	<hr/>
Market value at 31st July 2018	3,409,900	3,043,950
	<hr/>	<hr/>
Reconciliation of opening and closing market values:		
Market value at 1st August 2017	3,043,950	2,323,450
Additions at cost	365,950	645,000
Unrealised gains (note 15b)	-	75,500
	<hr/>	<hr/>
Total Market value at 31st July 2018	3,409,900	3,043,950
	<hr/>	<hr/>

Represents purchase of property for residential letting purposes to diversify the Society's investment portfolio. The rental derived is shown on the SoFA under 'Investment Income'.

NOTES TO THE FINANCIAL STATEMENTS
For the year ended 31st July 2018

15. Gains and losses on investment assets

	Unrestricted funds £	Restricted funds £	Total £
2018			
a. Quoted investments			
Realised gain on sale of investments	112,828	1,818	114,646
Unrealised gain in market value of investments	199,438	3,214	202,652
	<hr/>	<hr/>	<hr/>
Realised and Unrealised gain (Fixed Asset Investments: Note 14)	312,266	5,032	317,298
	<hr/>	<hr/>	<hr/>
b. Residential property investment			
Realised gain on sale of investments	-	-	-
Unrealised gain in market value of the Properties	-	-	-
	<hr/>	<hr/>	<hr/>
Realised and Unrealised gain (Fixed Asset Investments: Note 14)	-	-	-
	<hr/>	<hr/>	<hr/>
Total gains	<hr/> 5,032 <hr/>	<hr/> 5,032 <hr/>	<hr/> 317,298 <hr/>
	<hr/>	<hr/>	<hr/>
	Unrestricted funds £	Restricted funds £	Total £
2017			
a. Quoted investments			
Realised gain on sale of investments	111,448	2,002	113,450
Unrealised gain in market value of investments	677,009	12,160	689,169
	<hr/>	<hr/>	<hr/>
Realised and Unrealised gain (Fixed Asset Investments: Note 14)	788,457	14,162	802,619
	<hr/>	<hr/>	<hr/>
b. Residential property investment			
Realised gain on sale of investments	-	-	-
Unrealised gain in market value of the Properties	75,500	-	75,500
	<hr/>	<hr/>	<hr/>
Realised and Unrealised gain (Fixed Asset Investments: Note 14)	75,500	-	75,500
	<hr/>	<hr/>	<hr/>
Total gains	<hr/> 863,957 <hr/>	<hr/> 14,162 <hr/>	<hr/> 878,119 <hr/>
	<hr/>	<hr/>	<hr/>

NOTES TO THE FINANCIAL STATEMENTS
For the year ended 31st July 2018

16. Tangible Fixed Assets

	Leasehold Property	Fixtures Fittings and Equipment	Total
	£	£	£
Cost			
Brought forward at 1st August 2017	2,175,353	118,453	2,293,806
Additions	-	27,204	27,204
Carried forward at 31st July 2018	2,175,353	145,657	2,321,010
Depreciation			
Brought forward at 1 st August 2017	830,832	105,462	936,294
Charge for the year	44,817	10,267	55,084
Carried forward at 31st July 2018	875,649	115,729	991,378
Net book value			
At 31st July 2018	1,299,704	29,928	1,329,632
At 31 st July 2017	1,344,521	12,991	1,357,512

• Part of the leasehold property is let out and the rental derived is shown on the SOFA under 'Activities for Generating Funds'.

17. Debtors

	2018	2017
	£	£
Publications	51,528	124,089
Conference facilities	33,670	18,364
Other debtors	128,982	66,183
Gift-aid receivable	442	395
Prepayments and accrued interest	71,011	27,698
	285,633	236,729

18. Creditors and Deferred Income

	2018	2017
	£	£
Creditors: amounts falling due within one year		
Accruals	56,023	54,791
Grant creditors	205,943	235,253
Taxation and other Social Security creditors	57,867	72,518
Other creditors	391,715	299,164
	711,548	661,726
Deferred income:		
Unexpired publications' subscriptions:		
Balance brought forward	2,196	174,864
Amount released in year	(2,196)	(174,864)
Income deferred to future years	167,375	2,196
Balance carried forward	167,375	2,196
Creditors: amounts falling due after more than one year		
Brought Forward Pension Provision	173,200	186,618
Movement	(3,117)	(13,418)
Carried Forward Pension Provision	170,083	173,200

NOTES TO THE FINANCIAL STATEMENTS
For the year ended 31st July 2018

19. Restricted Funds

2018	Balance at 1.08.17 £	Other & Investment Income £	Expenditure £	Investment gain £	Transfers £	Balance at 31.07.18 £
<u>Prize (Capital) funds</u>						
Berwick Fund	32,066	84	-	-	-	32,150
De Morgan Medal & Larmor Fund	30,237	79	-	-	-	30,316
<u>Prize (Income) funds</u>						
Berwick Fund	21,404	716	(1,500)	502	-	21,122
De Morgan Medal & Larmor Fund	44,215	1,479	-	1,036	-	46,730
Lord Rayleigh's Fund	17,014	569	-	399	-	17,982
J.H.C. Whitehead Fund	-	-	(9,000)	-	9,000	-
Fröhlich Fund	15,545	520	(1,500)	364	-	14,929
Shephards Fund	34,443	1,152	-	807	-	36,402
<u>Other funds</u>						
A.J. Cunningham Research Fund	82,091	2,746	-	1,924	-	86,761
Zeeman Fund	221	-	-	-	-	221
Grants and Contracts	-	-	-	-	-	-
Total Funds	277,236	7,345	(12,000)	5,032	9,000	286,613

• The transfer of £9,000 from the General Fund to Restricted Funds is to cover a shortfall in income for the Whitehead prizes.

2017	Balance at 1.08.16 £	Other & Investment Income £	Expenditure £	Investment gain £	Transfers £	Balance at 31.07.17 £
<u>Prize (Capital) funds</u>						
Berwick Fund	31,906	160	-	-	-	32,066
De Morgan Medal & Larmor Fund	30,086	151	-	-	-	30,237
<u>Prize (Income) funds</u>						
Berwick Fund	20,710	694	(1,500)	1,500	-	21,404
De Morgan Medal & Larmor Fund	39,980	1,339	-	2,896	-	44,215
Lord Rayleigh's Fund	15,384	515	-	1,115	-	17,014
J.H.C. Whitehead Fund	-	-	(10,500)	-	10,500	-
Fröhlich Fund	14,056	471	-	1,018	-	15,545
Shephards Fund	31,144	1,043	-	2,256	-	34,443
<u>Other funds</u>						
A.J. Cunningham Research Fund	74,227	2,487	-	5,377	-	82,091
Zeeman Fund	170	51	-	-	-	221
Grants and Contracts	-	10,000	(20,000)	-	10,000	-
Total Funds	257,663	16,911	(32,000)	14,162	20,500	277,236

• The transfer of £10,500 from the General Fund to Restricted Funds is to cover a shortfall in income for the Whitehead prizes.

• The transfer of £10,000 from the General Fund to the Grants and Contracts represents LMS's contribution for MARM grant. (See note 21).

NOTES TO THE FINANCIAL STATEMENTS
For the year ended 31st July 2018

20. Unrestricted Funds

2018	Balance at 01.08.17	Income	Expenditure	Gain/(loss) on investment s	Actuarial gains (losses) on pension scheme	Transfer	Balance at 31.07.18
	£	£	£	£	£	£	£
General Fund: (see note 1 (q))	12,450,252	2,671,493	(2,331,587)	£312,266	3,117	179,476	13,285,017
Designated Funds:							
a) Building & Development Reserve Fund	600,000	-	-	-	-	(58,856)	541,144
b) Publication Reserve Fund	3,000,000	-	-	-	-	(22,070)	2,977,930
c) Grants Payable Reserve Fund	65,000	-	(51,000)	-	-	-	14,000
d) Special Activities Reserve Fund	32,199	84	-	-	-	-	32,283
e) Undergraduate Research Bursaries Fund	68,545	-	(31,810)	-	-	-	36,735
f) Compositio Fund	-	312,579	(205,029)	-	-	(107,550)	-
	<u>3,765,744</u>	<u>312,663</u>	<u>(287,839)</u>	<u>-</u>	<u>-</u>	<u>(188,476)</u>	<u>3,602,092</u>
	<u>16,215,996</u>	<u>2,984,156</u>	<u>(2,619,426)</u>	<u>312,266</u>	<u>3,117</u>	<u>(9,000)</u>	<u>16,887,109</u>

a) The transfer of £58,856 from the Building Fund to General Fund is to cover the costs of external and internal refurbishment of the building

b) The transfer of £22,070 from the Publication Fund to General Fund is to cover the cost of strategic and commercial initiatives

f) The transfer of £107,550 from the Compositio Fund to General Fund represents the management fee and the LMS's profit share relating to the journal.

2017	Balance at 01.08.16	Income	Expenditure	Gain/(loss) on investments	Actuarial gains (losses) on pension scheme	Transfer	Balance at 31.07.17
	£	£	£	£	£	£	£
General Fund: (see note 1 (q))	11,080,247	2,595,071	(2,196,608)	863,957	13,418	94,167	12,450,252
Designated Funds:							
a) Building & Development Reserve Fund	600,000	-	-	-	-	-	600,000
b) Printing & Publication Reserve Fund	3,000,000	-	-	-	-	-	3,000,000
c) Grants Payable Reserve Fund	123,000	-	(58,000)	-	-	-	65,000
d) Special Activities Reserve Fund	32,039	160	-	-	-	-	32,199
e) Undergraduate Research Bursaries Fund	100,000	-	(31,455)	-	-	-	68,545
f) Compositio Fund	-	358,228	(243,561)	-	-	(114,667)	-
	<u>3,855,039</u>	<u>358,388</u>	<u>(333,016)</u>	<u>-</u>	<u>-</u>	<u>(114,667)</u>	<u>3,765,744</u>
	<u>14,935,286</u>	<u>2,953,459</u>	<u>(2,529,624)</u>	<u>863,957</u>	<u>13,418</u>	<u>(20,500)</u>	<u>16,215,996</u>

f) The transfer of £114,667 from the Compositio Fund to General Fund represents the management fee and the LMS's profit share relating to the journal.

NOTES TO THE FINANCIAL STATEMENTS
For the year ended 31st July 2018

21. Analysis of net assets between funds

2018	Unrestricted funds		Restricted Funds	Total Funds
	General £	Designated £	£	£
Fund balances are represented by				
Tangible fixed assets	1,329,632	-	-	1,329,632
Investments	10,976,953	3,533,074	223,926	14,733,953
Current assets	2,027,438	69,018	62,687	2,159,143
Current liabilities	(878,923)	-	-	(878,923)
Long-term liabilities	(170,083)	-	-	(170,083)
Total net assets	13,285,017	3,602,092	286,613	17,173,722

2017	Unrestricted funds		Restricted Funds	Total Funds
	General £	Designated £	£	£
Fund balances are represented by				
Tangible fixed assets	1,357,512	-	-	1,357,512
Investments	10,228,989	3,665,000	214,712	14,108,701
Current assets	1,700,873	100,744	62,524	1,864,141
Current liabilities	(663,922)	-	-	(663,922)
Long-term liabilities	(173,200)	-	-	(173,200)
Total net assets	12,450,252	3,765,744	277,236	16,493,232

22. Grants and Contracts Management account

	2018		2017	
	£	£	£	£
a) IMU grant to the MARM				
Income	-		10,000	
Expenditure	-		(20,000)	
LMS's Contribution to the MARM		-		(10,000)
b) IMA, RSS & EdMS contributions to the CMS				
Income	40,963		36,894	
Expenditure (including support costs)	(79,428)		(76,824)	
LMS's Contribution to the CMS		(38,465)		(39,930)

23. Transactions with Trustees and connected persons

Trustees receive reimbursement only for expenses actually incurred in attending meetings. No remuneration is paid to trustees except as disclosed below. The gross amount that has been reimbursed in respect of attendance of meetings in the period amounted to £26,561 (2017: £25,944) for 17 Trustees (2017:18).

During the year £450 was paid to Dr A. Gardiner for delivering Holgate lectures. As this work falls outside of his duties as a trustee, a written agreement was produced between the Society and Dr Gardiner.

As disclosed in the Trustees' Report, where grants are awarded to Trustees the payment is always made to the relevant institution.

NOTES TO THE FINANCIAL STATEMENTS
For the year ended 31st July 2018

24. Comparison figures of each fund (2016/17 financial statements)

	Notes	Unrestricted General Funds £	Designated Funds £	Restricted Funds £	2017 Total Funds £
Income and endowments:					
Donations and legacies		2,551	-	50	2,601
Income from charitable activities:					
Membership subscriptions		118,024	-	-	118,024
Publications – LMS Periodicals	7a	1,396,910	-	-	1,396,910
Publications – Ventures and Royalties	7c,d	259,077	358,228	-	617,305
Grants and contracts	22	51,894	-	10,000	61,894
Total income from charitable activities		1,825,905	358,228	10,000	2,194,133
Income from other trading activities	3	310,123	-	-	310,123
Income from Investments	2	453,135	160	6,861	460,156
Other income		3,357	-	-	3,357
Total Income		2,595,071	358,388	16,911	2,970,370
Expenditure:					
Costs of raising funds	4	269,402	-	-	269,402
Expenditure on charitable activities:					
Advancing the interests of mathematics	5	342,048	-	12,000	354,048
Enabling mathematicians to undertake research and collaboration	6	754,734	89,455	20,000	864,189
Disseminating mathematical knowledge:					
- Costs of publications	7b,c,d	311,963	243,561	-	555,524
- Conferences and meeting programmes	8	135,777	-	-	135,777
Promoting mathematical research and its benefits	9	382,684	-	-	382,684
Total expenditure on charitable activities		1,927,206	333,016	32,000	2,292,222
Total expenditure		2,196,608	333,016	32,000	2,561,624
Net income/(expenditure) before gains and losses on investment		398,463	25,372	(15,089)	408,746
Net gains on investment assets	15	863,957	-	14,162	878,119
Net Income /(expenditure) for the year		1,262,420	25,372	(927)	1,286,865
Transfers between funds	19,20	94,167	(114,667)	20,500	-
Actuarial losses on defined benefit pension schemes	18	13,418	-	-	13,418
Net movement in funds for the year		1,370,005	(89,295)	19,573	1,300,283
Reconciliation of funds:					
Total funds brought forward		11,080,247	3,855,039	257,663	15,192,949
Fund balances carried forward		12,450,252	3,765,744	277,236	16,493,232