



Incorporated by Royal Charter

Trustees' Annual Report

2020

Registered Charity Number: 1017777

TRUSTEES' REPORT 2020

LEGAL AND ADMINISTRATIVE INFORMATION

This is the Annual Report of the Trustees of 'The Institute of Mathematics and its Applications' (IMA) for the year 2020. The Institute is governed according to a Royal Charter and Byelaws granted in 1990 and revised in 1997, 1999, 2002, 2008 and 2015. The governance and control of the Institute is vested in its Council (i.e. the Trustees). The charity registration number is 1017777.

PRESIDENT	Dr N Chamberlain
VICE-PRESIDENTS	Dr P Rowlett Dr R Pinch Professor H Wilson
HONORARY TREASURER	Professor A Osbaldestin
HONORARY SECRETARIES	Dr C Evans Dr M Grove
PAST PRESIDENTS	Professor A Fitt Professor C Linton Professor Dame Celia Hoyles

MEMBERS OF THE COUNCIL

The following were Councillors for the full year:

Mr A Apostolou	Dr S Lawrence
Professor R Bearon (re-elected July 2020)	Dr S Plata Iturralde
Professor C Breward	Professor E Rothead (elected July 2020, previously co-opted)
Mr C Chipperton	Professor N Steele
Dr M B Dias	Mr N Turner (re-elected July 2020)
Professor C Hobbs	

The following were Councillors and Trustees for the period up to 1 July 2020:

Elected Members: Professor R Craster, Professor P Glaister and Dr J Macey, and Co-opted Member, Miss W K Karrie Liu.

Dr D Boyce was a member of Council until 27 April 2020.

The following were Councillors and Trustees for the period from 1 July 2020. Co-opted Members: Dr F de Melo Viríssimo and Professor G Niblo.

The following completed their terms of office as Councillors and Trustees at the end of 2020: Dr C Evans and Professor H Wilson.

Additionally, those below took up roles from 1 January 2021:

- 1) as Honorary Officers: Dr M Barons (Vice-President to succeed Professor H Wilson) and Professor P Glaister (Honorary Secretary to succeed Dr C Evans);
- 2) as Co-opted Councillor: Professor Sara Lombardo.

The Institute's Head Office is:

Catherine Richards House,
16 Nelson Street,
Southend-on-Sea,
Essex, SS1 1EF.

Its bankers are:

Lloyds Banking Group,
Business Service Centre,
Sedgemoor House,
Deangate Avenue,
Blackbrook Business Park,
Taunton, TA1 2UG.

Its auditors are:

Croucher Needham (Essex) LLP,
Market House
10 Market Walk,
Saffron Walden,
Essex, CB10 1JZ.

STRUCTURE, GOVERNANCE AND MANAGEMENT

As set out in the Royal Charter, the Honorary Officers are appointed by Council. Fifteen further Corporate Members are nominated by the Corporate Members of the Institute. If the number of nominations is more than the number of vacancies, a postal ballot of corporate members is held.

The Council may co-opt any Corporate Member to be a member of the Council, provided that at any time the total number of co-opted members shall not exceed six, of whom not more than one shall be an Associate Member, not more than one will be a Student Member and not more than one shall be an Affiliate Member.

At 1 January 2021 the Secretariat included the following staff of the Charity:

David Youdan – Executive Director
Alan Peacock – Assistant Director
Joanna Baldacci – Services Officer: Journals and MathsCareers website
Nikki Barnes – Part-time Marketing Officer
Pam Bye – Part-time Conferences and Administration Officer
Maya Everson – Conference Officer
Sabeen Hansraj – Membership Assistant
Karen Hedderley – Part-time Administration Officer: Mathematics Today
Caroline Irwin – Membership Manager
Eugene Kidwell – Services Officer: IT and MathsCareers website
Alison Penry – Executive Manager: Council, Executive Board and Research Committee
Gemma Reeves – Services Officer: Council, Executive Board and Branches
Natalie Stanton – Part-time Membership Officer
Debbie Sullivan – Part-time Administration Assistant: Professional Standards
Cerys Thompson – Conference and Administration Assistant
Vanessa Thorogood – Education Manager and Project Manager, Scholarships
Erica Tyson – Part-time University Liaison Officer
Rebecca Waters – Editorial Officer

The IMA's organisational structure is led by the Council with support from the Executive Board. Council has responsibility for all decision-making but will normally delegate day-to-day business to committees such as Branches, Communications, Conferences, Early Career Mathematicians, Education, Finance, Journals Board of Management, Mathematics Today, MathsCareers, Membership, Professional Affairs and Research. Matters concerning the Secretariat are normally delegated to the Executive Director. Executive Board includes the Honorary Officers of the Institute (President, Vice-Presidents, Honorary Secretaries, Honorary Treasurer and President Designate/Past President) supported by the Executive Director and ad hominem members. Executive Board prepares and prioritises business for Council and maintains the activities of the IMA between Council Meetings. However, Council maintains overall responsibility for policy and decision making.

Trustees (Councillors) receive two categories of training. The Charity Commission publications "The Essential Trustee: What you need to know, what you need to do (CC3)" and "Charity finances: trustee essentials (CC25)" are the basis of generic training. Training in Institutional Affairs is provided by an IMA Briefing Pack that Councillors receive when they are appointed.

OBJECTIVES AND ACTIVITIES FOR THE PUBLIC BENEFIT

The Royal Charter sets the IMA's Object(ive)s as:

- to advance mathematics and its applications in all areas including commerce, engineering, finance, health, industry, scientific and other academic disciplines and the public sector and to promote and foster research and other enquiries directed to the advancement, teaching and application of mathematics for the public benefit;
- to seek to establish and maintain high standards of professional conduct for Corporate Members;
- to seek to promote, encourage and guide in the development of education and training in all matters relevant to the advancement of mathematics and its applications for members and all other persons who are engaged in or likely to be engaged in mathematics or its applications.

The activities for the Public Benefit are as set out as Mission and Goals in the Council approved Strategic Review (2018-2023). In particular the Mission is to benefit society through:

- Providing a suite of member focused services commensurate with its position as the principal professional and learned body for mathematics and its applications in the United Kingdom;
- Being a driving force for the use of mathematics in industry and commerce;
- Ensuring that the importance of mathematics is well represented to Government; a major contributor to the promotion of mathematics within the education systems of the United Kingdom, and helping further improve the quality of mathematics teaching, and the supply and support of mathematics teachers;
- Being a major contributor to the promotion of mathematics within the education systems of the United Kingdom, and helping further improve the quality of mathematics teaching, and the supply and support of mathematics teachers;
- Being an influencing voice for the use of mathematics in science, technology, engineering, economics and other fields of endeavour;
- Advancing its reputation as a major contributor to mathematics research initiatives;

- Engaging proactively at all levels with the full spectrum of the media and society for the promotion of mathematics in the UK;
- Adding value to the worldwide mathematics community by providing a range of services, conferences, publications and events that are fulfilling and beneficial for its membership and for mathematics;
- Promoting high standards of professional conduct for members;
- Regulating the Chartered Mathematician and Chartered Mathematics Teacher designations;
- Working with other mathematical organisations to develop a unified voice for mathematics in the UK;
- Collaborating with organisations in other countries to promote mathematics at an international level.

Trustees carefully consider the approved objectives and mission when planning and reviewing activities at its three meetings each year. Council has judged that the 2020 programme has been successful in the delivery of the agreed Objectives and Mission for the public benefit.

ACHIEVEMENTS AND PERFORMANCE IN 2020

Overall

2020 was dominated by the COVID-19 pandemic. January and February were typical, after which we began to arrange our activities with all staff working from home and all activities being run online. We were fortunate that we had begun using more remote working in 2019 associated with the Scholarships scheme and so were in a good position to expand our remote / virtual working. Trustees are very appreciative of the huge team effort that enabled this.

There was a dramatic reduction of face-to-face activities, in particular conferences, but in other areas services were maintained and in some places expanded.

Our conference team ran one face-to-face event, 13 virtual events, postponed six events and cancelled one event. The rapid expansion of virtual events was commendable.

To compensate for the reduced programme and to provide increased services to members who had been furloughed, we launched a series of Maths Teas virtual events that were established by our Social Media Taskforce. These Maths Teas proved to be very popular with members and non-members joining from across the UK and internationally. It is planned that these Maths Teas will continue in 2021.

We ran the Department for Education Mathematics Initial Teacher Training Scholarships scheme for an eighth successful year recommending 333 outstanding applicants for scholarship funds.

A large number of Branch events were held online, allowing members in much greater numbers from around the country to attend these regional events.

We played the leading role with the CMS in the inclusion of mathematics within STEM for Britain at Parliament; the final of the 2020 competition took place in Parliament on 9 March.

All issues of Mathematics Today were printed and posted on time.

The membership e-Bulletins were issued every two months, alternating with Maths Today.

The popular IMA MathsCareers website was redesigned during the year; attracted 390,000 visits and increased its followers on Twitter to 7,267. We also issued six more editions of our e16plus newsletter.

Our eStudent offer continues to be highly popular, and following a refresh of our eStudent population, we had 7,000 eStudents at the end of 2020.

Our grant programmes for research, education and university activities were under-utilised because so few face-to-face activities, which are the mainstay of our grant programmes, could be held.

And on top of this we ran our regular activities including, education, journals, and mathematics consultations.

Our year-end membership numbers were at the highest level ever. We are grateful to all our members who support the Institute and to the Volunteers and Secretariat that kept our Services to Mathematics so vibrant in 2020.

SERVICES TO MATHEMATICS

Research Committee

Professor Helen Wilson, Vice President Learned Society, chaired the Research Committee in 2020. The full membership of the Committee can be viewed on the IMA website:

<https://ima.org.uk/roles/research-committee/>

These researchers contribute to our discussions with the research funding councils and policy makers, and work to promote the benefits of fundamental and applied mathematical research to the economy and to society. The Research Committee also assess applications for Small Grants.

Throughout the year, Research Committee worked on behalf of the community in many ways, including the following:

- The working group which was formed by the Committee in 2018 to consider IMA responses to Professor Bond’s Review, “The Era of Mathematics, an independent review of knowledge exchange in the mathematical sciences”, continued to meet in 2020 and worked to advance publicity of knowledge exchange. For example, the group initiated a special issue of ‘Mathematics Today’ with Knowledge Exchange as its theme. The working group and the Committee also continued to liaise with the two CMS Committees which were set up to take forward recommendations of the ‘Bond Review’ on behalf of the community.
- Committee Chair, Helen Wilson wrote to Amanda Solloway, MP and Parliamentary Under Secretary of State at BEIS (Minister for Science, Research and Innovation,) to welcome the Government’s Research and Development Roadmap, which was published on 1 July, and to highlight the effectiveness and economic benefits of the Mathematical Sciences.
- The Committee responded, on behalf of the IMA, to the House of Commons Science and Technology Committee inquiry into the “The role of technology, research and innovation in the COVID-19 recovery”.
- The Committee launched a call for nominations for the inaugural award of the ‘IMA Hedy Lamarr Prize for Knowledge Exchange in Mathematics and its Applications’. Nominations

are invited until 31 January 2021, after which the award panel will consider entries for this new IMA prize.

- Helen Wilson worked with IMA and LMS colleagues to organise a further joint IMA-LMS scientific meeting, which took place on 1 and 2 October, on the theme of ‘Topological Methods in Data Science’. This meeting was held virtually which enabled a large audience to attend. Thanks are given to ICMS for hosting the event as part of its online Mathematical Sciences Seminars, the Presidents of both societies for chairing the event, all speakers, participants, attendees and organisers.

Journals

The Institute’s eight academic journals are published by Oxford University Press (OUP). Five of these are traditional hybrid print journals:

- *IMA Journal of Applied Mathematics*
Editors: Alan Champneys, (Bristol), and Demetrios Papageorgiou, (Imperial);
- *IMA Journal of Numerical Analysis*
Editors: Arieh Iserles, (Cambridge), Endre Süli, (Oxford) and Charles Elliot (Warwick);
- *Information and Inference: A Journal of the IMA*
Editors: Robert Calderbank, (Duke); David Donoho, (Stanford); John Shawe-Taylor, (UCL) and Jared Tanner, (Oxford);
- *IMA Journal of Management Mathematics*
Editors: Philip Scarf, (Salford); Aris Syntetos, (Cardiff) and Rogemar Mamon, (Western Ontario);
- *Teaching Mathematics and its Applications: an International Journal of the IMA*
Editors: Duncan Lawson, (Coventry); Christopher Sangwin, (Edinburgh) and Cathy Smith (OU).

Two are online only hybrid journals:

- *IMA Journal of Mathematical Control and Information*
Editors: Christophe Prieur (Grenoble) and Sarah Spurgeon OBE, (UCL);
- *Mathematical Medicine and Biology: A Journal of the IMA*
Editors: Oliver Jensen, (Manchester); John King, (Nottingham) and James Keener, (Utah).

One is an open access only online journal:

- *Transactions of Mathematics and its Applications*
Editor in Chief: Arieh Iserles (Cambridge) and Dominic Vella (Oxford).

Five journals currently have impact factors (IF). During the most recent assessment period the IF increased for *IMA Management Mathematics* to 1.529.

Conferences

The lockdown in March made a significant impact on our conferences programme, with an initial decision to postpone all events until at least September. It was soon apparent that in-person events

would not resume in 2020, so the conference team worked swiftly to facilitate running remote conferences, purchasing and testing appropriate software, and building a new online conference programme. We delivered the first of a series of online talks in July, with the IMA Presidential Address by Dr Nira Chamberlain, and continued with three other sessions. Together these events were badged as the IMA 2020 Mathematics Series. The revised programme for 2020 was as follows:

- *New Year IMA 16+ Lecture Day*
8 January 2020, University of Liverpool
- *IMA Mathematics 2020 Online series*
 - Week 1 – 14 July - “Building a Powerful Mathematical Identity!”
 - Week 2 – 22 July - “Open Mathematical Questions to Illuminate Quantum Machine Learning” and “Maths & Stats for Effective Regulation”
 - Week 3 – 30 July - “V-KEMS: The Virtual Forum for Knowledge Exchange in the Mathematical Sciences” and “Privacy-enhancing Technologies”
 - Week 4 – 12 August - “Robots and Maths: Are they related?” and “Tensors, graphs, and deep networks: Convergence of concepts and ideas”
- *Topological Methods in Data Science*
Joint conference with LMS – online
1 & 2 October 2020
- *IMA Early Career Mathematicians’ Autumn Conference 2020 – online*
24 & 25 October 2020
- *Black Heroes of Mathematics Conference – online (with BSHM, ICMS and LMS)*
26-27 October 2020
- *16plus Careers Lecture – online*
10 November 2020
- *Maths in Music Christmas Edition - online*
11 December 2020
- *Mathematics of Big Data: Lessons from COVID-19 - online*
15 December 2020

All of the above events were free to attend. For events in 2021, a moderate fee will be charged for attending online sessions.

The feedback from delegates has been very positive, and numbers attending have been generally in excess of 100. We have noted that going online has resulted in an upward trend in female participation, participation from international delegates, and an overall accessibility of the conferences.

We give our thanks to the mathematical organising committees and the conference team for working so diligently to ensure a smooth transition to online delivery within a very short space of time. We anticipate a mix of online and in-person events in the future.

IMA Lectures

IMA President, Dr Nira Chamberlain, gave his Presidential Address, “Building a Powerful

Mathematical Identity!” as the inaugural session of the IMA Mathematics 2020 Online series.

Two 16plus lectures are reported within the conference events section.

Small Grants

The IMA’s Small Grants Scheme is designed to be flexible, so that it can be used to facilitate any research activity within the scope of mathematics and its applications. Grants are available up to a value of £600 for individuals and up to £1,200 when enabling an event to take place.

The budget for 2020 was £12,000. As many events were affected by COVID-19 application numbers were reduced. The Scheme received 18 applications, requesting a total amount of £14,305. Eight applications were declined, seven were awarded in full, one was withdrawn, and two were awarded a reduced amount. Awards for 2020 are shown on the IMA website.

Education

During 2020, our contribution to mathematics education was led by Dr Michael Grove (Honorary Secretary with responsibility for Education), supported by Professor Nigel Steele (Deputy Honorary Secretary Education), Professor Andrew Osbaldestin (Chair, HEdSA), Mr Christopher (Chris) Chipperton (Chair, S&FE) and Vanessa Thorogood (Education Manager) together with all our education committee members.

The Education Service Area actively promotes the engagement of the Institute's members in education with its work through communications by email, on the website, and in *Mathematics Today*. For instance:

- notification of the publication of key reports;
- invitations to participate in events and / or contribute to external initiatives;
- opportunity to provide feedback on specific issues;
- invitations to contribute to Institute responses to consultations;
- publication of the Institute's submissions to consultation exercises.

Due to the COVID-19 pandemic in 2020, some of our regular activities, such as the Big Bang Fair, were postponed, and we look forward to the ability to resume most activities in 2021.

Higher Education

HE Teaching and Learning Series

A fourth call for the *Higher Education Teaching and Learning Series* was not released in early 2020/21. The COVID-19 pandemic resulted in the workshops due to take place in 2020 from the 2019/20 call to be postponed until 2021.

We have agreed with the successful applicants to our third call in 2019/20 that their workshops can be held in 2021 (subject to government advice on COVID-19):

- University of Birmingham - *Making Mathematics Accessible to All*
- Cardiff University & University of Bristol - *Reflection? Action? Research: Enhancing Mathematical Research and Scholarship*

- University of Glasgow - *Assessment strategies for mathematical sciences in the digital era*
- University of Nottingham - *Project-based and synoptic modules*
- University of Plymouth - *Involving employers in the development of the mathematical sciences curriculum*
- University of Sheffield - *Effectively teaching small classes as a postgraduate demonstrator*

Induction Course for New Lecturers

The Induction Course for New Lecturers was postponed until 2021.

Teaching and Learning Mathematics Online

The IMA endorsed TALMO; a two-day workshop which consisted of short online presentations on pedagogical and technological issues and practices associated with online delivery.

IMA John Blake University Teaching Medal

The IMA John Blake University Teaching Medal is awarded to individuals who have made a significant and sustained contribution to the teaching of the mathematical sciences at university-level (Level 4 and above). The award is named in honour of Professor John Blake (1947-2016) who, in addition to his research profile in bubble dynamics and low Reynolds number biological flows, was amongst the first true champions of teaching and learning within higher education.

Nominations for the inaugural award of the IMA John Blake University Teaching Medal opened on 1 October 2020.

Programme Accreditation

The Institute's Programme Accreditation scheme accredits university degree programmes from which all its graduates will meet the educational requirements for the CMath designation. A total of 60 universities currently have degrees accredited by the Institute.

HEdSA has continued to revise the guidelines for Programme Accreditation, which will be fully implemented in 2021.

A list of accredited degree programmes can be found on the Programme Accreditation page of the Institute's website.

Schools and Further Education

Stella Dudzic (Programme Leader, Curriculum and Resources, MEI) attended a meeting of the S&FE Committee to discuss MEI's report: A new mathematics GCSE curriculum for post-16 resit students.

The Committee responded to Ofqual's Consultation - Exceptional arrangements for exam grading and assessment in 2020.

School Speakers

In 2020 requests for School Speakers were handled regionally, where appropriate, by IMA Branches.

Polymaths

Polymaths is a part-time open access course validated by the Institute offered by the University of Bolton. A total of seven people was awarded the Polymaths certificate in 2020.

Education Grants

Individuals in schools, FE and HEIs in the UK can apply for a grant, normally up to a maximum of £600, to help with the costs of running or attending an educational activity relating to mathematics.

The Education Grants Judging Panel, consisting of the Institute's Honorary Secretary with Responsibility for Education and the Chairs of the education committees, decides on each application.

During 2020, the Education Grants scheme received 13 applications; of which four were awarded grants for the full amount requested, and nine were declined.

The Education Grants awarded a total of £2,356 in 2020.

Applications approved for 2020 are shown from the on the Institute's website.

IMA MathsCareers

Site development work was completed in November 2020 and the redesigned version of the MathsCareers site launched on 1 December. Despite the site being under development for much of the year it regularly received over 30,000 visits per month and 390,000 visits in the year. The site is one of the top websites of its kind within the STEM community and continues to be popular among undergraduates seeking career advice as well as secondary education audiences. New content planned for 2021 includes articles on GCSE maths topics, as well as content on a variety of mathematical careers. Two contests are run every year where entrants submit posters on a mathematical theme.

Social Media is used to raise the profile of IMA MathsCareers, and it now has 7,267 followers on Twitter including several 'verified' followers. The profile of the site, as well as mathematics generally, is raised via the distribution of classroom posters.

Mathematics Teacher Training Scholarships

The IMA, working with LMS, MA, MEI, STEM Learning and RSS, delivered the Mathematics Teacher Training Scholarships on behalf of the Department for Education. The overall aim of the Scholarships scheme is to improve the quality, and widen the pool, of applicants for secondary teacher training by attracting highly qualified graduates and career-changers who might not normally consider teaching as a career.

The 2019/20 (year eight) scheme was announced and opened for applications in October 2019, with a target of awarding 270 Scholarships to those who commence secondary mathematics teacher training in the 2020/21 academic year. This was the most successful year we have had, receiving 620 applications and awarding 333 Scholarships.

The pandemic during 2020 brought significant challenges and changes to the Maths Scholarships scheme. We continued to support our 2019/20 Maths Scholars, Alumni and recruit Maths Scholars for 2020/21 by taking all our activities online.

The ninth year (2020/21) of the Mathematics Teacher Training Scholarships was launched on 11 January 2021. There is a change to the financial incentives for those going into mathematics initial teacher training for both the government bursary and the Scholarships. The Maths Scholarship is now a £26k tax-free bursary during the initial teacher training year.

There are 270 Maths Scholarships available for individuals commencing secondary mathematics teacher training in the 2021/22 academic year.

Undergraduate and Postgraduate Liaison

The University Liaison activity increases membership, awareness of, and participation with the IMA amongst undergraduate and postgraduate students, and the university community. This is achieved through newsletters to our nearly 7,000 strong eStudent community, grants to student mathematical societies, careers talks for mathematics undergraduates and supporting careers events and student conferences. In 2020 there were seven issues of the eStudent newsletter and we continued posting general skills articles to the IMA Student Blog. From April 2020 events transferred online, though a number of conferences were postponed to 2021. An autumn Early Careers Mathematicians (ECM) conference was held online in October and was very successful with over 100 attendees on both days.

In 2020, £6,800 was paid in grants. Undergraduate awards were made to the Mathematical societies of the Universities of Aston, Birmingham, Bristol, Heriot-Watt, Manchester, Newcastle, Sheffield Hallam, University College London, University of East Anglia and Warwick. Awards were made to the IMA-SIAM Joint Student Chapters of the universities of Cardiff, Dublin, Edinburgh/Heriot-Watt, Manchester and Southampton. Sponsorship of £850 was also given for prizes for the Oxford Industrially Focused Mathematical Modelling (InFoMM) Graduate Camp and speaker costs at the SIAM UKIE annual conference. Society activities supported included conferences, competitions, talks and participation in IMA conferences. The University Liaison Officer (ULO) delivered 28 careers talks, 22 of which were delivered remotely, and two workshops, supported two careers fairs, five conferences and the InFoMM camp. Three events were delivered by IMA ambassadors.

Academic Representatives

The Academic Representatives' scheme was established by the Institute in 2017, and we currently have 57 Representatives at 55 universities. Representatives are members of academic staff and they support the Institute by highlighting the work of the IMA in the community and beyond, to their students and colleagues, as well as providing feedback on the priorities of academic members. During 2020 three AR Newsletters were sent to help to grow the full membership of students and academics. It is planned that the scheme will develop further over the next year.

Early Career Mathematicians' Group

The Early Career Mathematicians' (ECM) Group aims to provide those starting out in the profession with opportunities to develop their skills and network with peers. An ECM conference took place online over two days in October. The conference was well-attended and offered early-career members a varied programme of engaging talks and time to network with other attendees. These conferences were organised with assistance from the Secretariat.

The ECM Group works closely with the University Liaison project to recruit student members and is also highly active on a range of social networking sites.

Professional Affairs

The Professional Affairs Committee (PAC) met three times during 2020 via remote conference facilities, chaired by Richard Pinch. The key agenda item throughout the year was consideration of and engagement with progress on the Bond Review/ Big Mathematics Initiative (BMI). Discussions about an Academy for the Mathematical Sciences moved quickly and, by the beginning of July, an open meeting (online) about the creation of an Academy had been held. This was well attended and garnered general support for the Academy. The two BMI working groups were dissolved, to be replaced by a single working group to make a definite proposal and to "make the Academy happen". A number of Council members had agreed to join the group so that the interests of the

IMA are represented, including PAC members to provide industrial insight.

The Employers' Forum did not take place this year due to the ongoing COVID-19 crisis; however, the committee is aiming to host a virtual event in the first half of 2021.

The committee considered an initiative from The Royal Society regarding Data Science Professionalisation, which has been led by The Royal Statistical Society with other professional bodies, including the IMA, working alongside. The initiative highlights the government's desire for a major increase in data skills with the establishment of industry-wide professional standards. The Chair of PAC is on the steering group and working group.

Details of our Corporate Affiliate members can be found at: <https://ima.org.uk/affiliates/corporate-affiliates/>

We are very grateful for the involvement of these organisations with mathematics and with the Institute.

Mathematics Today

In October the Knowledge Exchange special issue celebrated the power of mathematics to make a real impact. We also explored the diverse career paths that our members have followed with a series of eight interviews focused on knowledge exchange that are available on the Mathematics Today section of the IMA website.

The Graham Hoare Prize 2020 was awarded to Luca Panconi for his uplifting article 'A Mathematician's Guide to the Perfect Mug of Tea', which was published in the December 2020 issue.

IMA Website and Social Media

In March, Council agreed that a small working group (the Social Media Task Group) should be established, to support the IMA's Marketing Officer with guidance on making mathematical social media posts; and discuss what content the IMA should be releasing during the pandemic, and how we could connect with our membership during this time. Further information on the work of the group is contained under "Membership Development".

The IMA's presence on social media has increased over the year. We have gained over 3,300 followers on Twitter, bringing our total to 17,100. Our LinkedIn company page has over 19,976 likes. Our Facebook page has 978 followers and Facebook group has over 4,443 members.

To foster engagement and raise awareness of the IMA our Communications Committee is encouraging regional branches to record talks. In 2020 17 talks were recorded, published, and embedded on the IMA website. These talks have received 2,146 views.

Google estimates demographic information about its users which it partially shares with us via our Google Analytics account. This demographic information extends to age and gender. Demographic information provided by Google Analytics of the visitors to the IMA website has been informative: in 2020 more than half of the visitors to the IMA site have been under 34 years of age (56.49%); and the gender distribution of total visitors is around 62/38 split of male to female (in comparison to the current total IMA member split of 76/24 male to female).

Sessions to the IMA website are up this year. Each month of 2020 resulted in more site visits than in 2019, with 1-2k sessions more than the corresponding month in 2019. Visits to the IMA website are up eight per cent on 2019.

IMA e16plus Newsletter

The e16plus Newsletter published six full editions in 2020. It is designed to inspire and raise interest in mathematics amongst 16 to 19-year-olds and has 1,449 subscribers. The regular puzzle feature continues to be popular with readers, and the links in the newsletter are designed to encourage engagement with MathsCareers and the IMA website.

Branches

Branches continue to be an important feature of the IMA, providing regional networking opportunities. They are run by committees of local members, with administrative support provided by the Secretariat.

The six active branches have held varied programmes of events for their members during 2020 and plans for the 2021 programme of talks are underway. Branches adapted well to the COVID-19 pandemic, and an interesting selection of talks was provided online, which enabled members who might usually be unable to attend in-person meetings, to engage with their local branch.

In November the West of England branch was relaunched as the South West and Wales branch, which was received positively by members. Some areas of the UK remain unrepresented by branches; members are encouraged to consider establishing new branches (or reviving dormant ones) in these areas, for which Secretariat assistance continues to be a high priority.

Diversity

The IMA is a signatory of the Science Council Declaration on Diversity, Equality and Inclusion, and Council has appointed champions to lead the IMA in this important agenda. Jenny Macey is thanked for her valuable contributions during her term as Diversity Champion, during which she oversaw the development of the IMA's diversity webpages for the benefit of members. The end of Jenny's term coincided with the end of her term as IMA Councillor in July 2020, when she was succeeded by Snezana Lawrence.

By identifying diversity as a cross-cutting theme in all IMA committee meetings many improvements have been identified and achieved. A benchmarking exercise, led by the Science Council, was started in late November and will continue into 2021.

Membership and Chartered Registers

The Membership Committee, chaired by Dr Charles Evans, is delegated, by Council, to assess individual membership applications. The Membership Committee is made up of Chartered Mathematicians who are Fellows of the Institute. They have a background in at least one of the following major areas of employment for mathematicians; academic research and teaching, schools and further education, industry, commerce, finance and IT.

In 2020 we have had the privilege to welcome over 900 new members and assist 113 existing members in transferring to a higher grade. We have also recruited 24 new Chartered Mathematicians and/or Chartered Scientists.

Membership figures at 31 December 2020:

Honorary Fellow	17
Fellow	1,444
Member	1,316
Associate Member	1,831
Affiliate	574

Student	525
Total	5,707

Of the above memberships, 1,527 are registered as Chartered Mathematicians and 229 as Chartered Scientists.

Trustees wish to acknowledge the long service of Dr Charles Evans as he steps down from the position of Honorary Secretary Membership.

The Institute has continued to support UK University Mathematics Departments by offering over 140 IMA Graduate Prize Memberships in 2020.

Chartered Mathematics Teachers

The Chartered Mathematics Teacher Registration Authority consists of representatives from IMA, Association of Teachers of Mathematics, Mathematical Association, and National Association of Numeracy and Mathematics in Colleges. Dr Charles Evans, the chair of the Institute’s Membership Committee, also chairs the Chartered Mathematics Teacher Registration Authority. At 31 December 2020, we had 45 registered Chartered Mathematics Teachers.

Membership Development

We continued to deliver and update the Communications and Marketing Plan with input from the Membership Development Task and Finish Group in the first few months of the year; however, the onset of the pandemic led to a switch in focus to ensuring that we maintained close connection with, and provided support to, our membership during the crisis.

At its meeting in March shortly after lockdown, Council agreed that a small working group (the Social Media Task Group) should be established, to support the IMA’s Marketing Officer with guidance on making mathematical social media posts; and discuss what content the IMA should be releasing during the pandemic, with a focus on providing existing members with services and information of value to them and in their careers. This led to the launching of the “Virtual Maths Teas” in April, which have proved very successful, enabling members to join informal discussions on a range of topics. The Social Media Task Group has decided to continue them on a monthly basis into the new year.

The Membership eBulletin continues to be issued every two months, alternating with *Mathematics Today*. The last edition of 2020 was issued in early November.

REPRESENTATION AND PUBLIC RELATIONS

The Institute co-operated with a wide range of mathematical and scientific bodies. The Institute responded to government and statutory body consultations and was involved in informal contacts with senior officials in these areas. The Institute provided information on career opportunities and on other aspects of mathematical education and practice.

The IMA believes that mathematics is best served when a unified voice is presented to government and funders. Therefore, whenever possible the IMA promotes its message through the Council for the Mathematical Sciences (which is comprised of the IMA, the London Mathematical Society, the Royal Statistical Society, the Edinburgh Mathematical Society and the Operational Research Society).

IMA and Government

Both in its own right and as a member of CMS the IMA has been involved with a wide range of engagement activities in Parliament this year.

We continued to run the DfE Mathematics Teacher Training Scholarships scheme.

IMA Council members are in regular contact with DfE and UKRI.

On 9 March a panel of CMS judges, chaired by Tim Pedley, selected the Parliamentary and Scientific Committee STEM for Britain mathematics winners. Once again we are very grateful to the Clay Mathematics Institute and the Heilbronn Institute for their generous sponsorship of these prizes. STEM for Britain is the largest science event held in the Houses of Parliament on an annual basis and helps to strengthen our dialogue with Parliamentarians.

The Parliamentary Links Day took place on 14 July virtually on the theme of ‘Trust in Science’. The IMA was represented at this event.

Our Executive Director, David Youdan, has continued to serve as an Advisor to the Parliamentary and Scientific Committee.

Council for the Mathematical Sciences (CMS)

CMS is composed of IMA, LMS, RSS, EdMS, and ORS, and has been chaired by Professor Sir Ian Diamond since September 2018. Many outside mathematics do not see the need for so many mathematics organisations. Those who only wish to deal with one authoritative organisation often deal with CMS.

A number of activities that relate to education and research were advanced together with our sister societies within CMS.

CMS continues to receive briefings from Royal Society ACME, which is funded by the IMA and others.

CMS continued to promote the needs of mathematics to BEIS, DfE, UKRI, the House of Commons Science and Technology Committee, the House of Lords Science and Technology Committee, and the Scottish Funding Council.

The work of the CMS ‘Big Mathematics Initiative’ continued in 2020 and included a virtual community meeting on the proposal of the Bond Review Report, The Era of Mathematics, regarding the establishment of an Academy for the Mathematical Sciences and other agenda items.

London Mathematical Society (LMS)

Throughout 2020 we continued to work with the LMS in many areas including research, Mathematics Initial Teacher Training Scholarships and mathematics promotion.

Together we also award the David Crighton Medal for Services to Mathematics and the Mathematics Community, and the Christopher Zeeman Medal for Mathematics Promotion. In 2020, Matt Parker was awarded the Christopher Zeeman Medal, and both his prize winner’s lecture and that of Professor Ken Brown, who was awarded the 2019 David Crighton Medal, are planned to take place when COVID-19 distancing measures have been relaxed.

As documented in the Research Committee section of this report, a well-attended, fourth scientific meeting of the current IMA-LMS series, titled ‘Topological Methods in Data Science’ took place online, on 1 and 2 October.

The IMA Council continues to affirm that it wishes to fully embrace the concepts and principles of

a New Unified Mathematics Society, and hopes that through constructive engagement the LMS and the IMA will be able to achieve this goal jointly at an agreed date in the future.

Other UK Mathematics Organisations

We continue to work closely with the Association of Teachers of Mathematics, the Mathematical Association and NANAMIC in the management of the Chartered Mathematics Teacher Registration Authority.

We also work closely with many sister organisations, Royal Society ACME, NCETM, and the Joint Mathematical Council to promote and support mathematics whenever possible.

The IMA has a representative who is an invited observer to the HoDoMS meetings and activities. The IMA always seeks to develop its higher education strategy in agreement with HoDoMS and the LMS.

UK SET and Others

Science Council

The IMA is a member of Science Council and continues to work cooperatively with Science Council to promote science, including mathematics, to Government.

Throughout 2020 the Chartered Scientist designation has continued to be popular with members with 229 holding the designation.

International

SIAM

IMA members who live in the UK may receive a discounted SIAM membership fee under our reciprocity agreement. (A reciprocal arrangement exists for SIAM members who live in the US). We have joint promotional campaigns and co-operative activities with SIAM and SIAM UKIE.

European Mathematical Society

The IMA is a member of the European Mathematical Society. IMA members pay their discounted subscriptions directly to European Mathematical Society.

ICIAM

The IMA has continued its membership and support of the International Council for Industrial and Applied Mathematics. Activities of ICIAM have been reduced during 2020 because of the Pandemic.

FINANCE

The 2020 budget was a loss of £17,575. The result is an unrestricted surplus of £157,522.

In the following section all figures relate to the difference between budget and actual. The most significant reason for the changes was the COVID-19 pandemic. For example, we lost almost all of our budget conference contribution, (£47k); we cancelled some education and outreach activities, £18k; there were non-awarded grants and underspend on CMS grant, £61k; and on scholarships, we lost a team member and recorded an increase of scholarships awards contribution, £29k; untaken holidays, (£11k).

Significant items that were not related to COVID-19 include a bonus payment on 2019 journal sales, £50k; increased membership fees, £6k; staff salaries, (£8k); reduced printing and stationery, £11k; reduced committee travel expenses, £29k; increased costs for GDPR, (£6k); and reduced depreciation, £5k.

At the end of 2020 the total assets less current liabilities is £1,412,247 of which £151,100 is in relation to restricted reserves. In 2019 the equivalent figure was £ 1,181,014, of which £77,388 was in relation to restricted reserves.

Funds were used to support our charitable aims. There is a clear public benefit in our activities to support education; to run educational conferences; to support mathematics to government; to regulate the profession of Chartered Mathematician; to contribute to the advancement of research initiatives; to be an influencing voice for the use of mathematics across STEM, industry and commerce; and to promote mathematics across media and society in the UK.

Members receive a membership publication. The revenue received from member subscription exceeds the value of direct membership services. The subscription surplus is spent on meeting our charitable objectives.

Finance Committee, which reports to Council, sets the pay and remuneration of the charity's personnel.

Policy on Reserves

'The Institute is a charitable organisation that promotes mathematics and its applications. It is a learned society and a professional body where income is principally based on subscriptions, and revenue from conferences and publications. The Institute requires adequate reserves to provide for any shortfall in immediate income and to allow remedial action in event of any long-term adverse change in circumstances. The Institute also requires financial reserves in order to respond to any major opportunities to develop and promote its objectives.

Council considers that reserves equivalent to one year's standard expenditure (excluding large projects which are not part of standard long-term activities) would be an appropriate level.

When Restricted Funds exist, for example the IMA Leslie Fox Fund, those funds will be used for the purpose for which they are restricted. Restricted reserves will not be counted when calculating the amount of reserves for general purposes.

Council continues to spend some of its reserves to boost future membership (e-16+ newsletter; postgraduate student initiative). The intention of this investment is to increase membership revenues that will recover the cost of development. Finance committee will monitor the effect of this investment on reserves.

Two months' operating expenses should be held as liquid reserves.'

At the end of 2020 the total assets less current liabilities is £1,412,247 (£1,181,014), which is close to one year's standard expenditure, and therefore is deemed to meet the policy.

Policy on Investments

'The IMA holds reserves that are close to one year's standard expenditure (excluding large projects which are not part of standard long-term activities), with a requirement that two months' operating costs should be available at short notice.

The IMA Finance Committee recommends that reserve funds (above those required for operational purposes in the next two months) should be held in high interest deposit accounts, preferably those designed specifically for charities. Decisions on the accounts to be used will be based on interest rates and security. Decisions on the term of deposits will be based on the different interest rates

available and the timing of any likely operational requirement for the funds to be deposited.

The amount to be held on deposit will be reviewed by the IMA's Finance Committee every meeting. The interest rates available will be reviewed by the Finance Committee. When time-limited accounts mature, the available options will be reviewed by the Executive Director and the Honorary Treasurer

A target of three months' (no more than six months') budget expenditure should be held with any one authorised financial institution or group.'

Policy on Risks

'The Institute has had a regular income flow from subscriptions, publication sales and conference fees. While these may fluctuate on a year-to-year basis, the Institute has sufficient reserves to enable remedial action in event of any short- or medium-term decline. A review of the Institute's freehold property, Catherine Richards House, is conducted regularly to determine any repairs or refurbishment necessary.

Finance Committee agree a paper each year which sets out a range of perceived risks, together with assessments of probability (1-3), severity of consequence (1-3), rating (1-9), and a recovery strategy for each item. In the current risk analysis the highest rated risks and the recovery strategy for these risks are:

- Loss of Key personnel (rated 6)
- Decline in journals revenue (rated 6).'

IMA Grant Policy

'All IMA Grants are retrospectively reviewed at the end of the financial year by the IMA Council or Executive Board. All grant budgets are set by Council before the year begins. Grants are currently awarded by four routes: Small Grants to facilitate research activity; Education Grants; Undergraduate and Postgraduate Grants; and Other Grants. All Grants meet the stated Objectives and Mission of the Charity and produce Public Good.

Small Grants

The purpose of the Institute's Small Grant Scheme is to facilitate research activity in all areas of applicable mathematics. The Small Grant Committee normally awards grants to a value of £600. A higher ceiling figure of £1,200 can apply when the grant would enable a meeting/conference with a mathematical theme to take place.

Education Grants

Individuals in secondary schools, Colleges of Further Education (FE) and Higher Education Institutes (HEIs) in the United Kingdom can apply for a grant to help with the costs of running or attending an educational activity relating to mathematics. Grants to a value of £600 are awarded by the Education Grants Committee.

Undergraduate and Postgraduate Grants

Grants are available to University Mathematics Societies. The Secretariat award grants to a value of up to £400.

Other Grants

These grants are awarded at the discretion of Council or Executive Board to support organisations or activities that promote mathematics and its applications. The exact range of grants is not fixed, but typical examples of grants recipients include: the Council for the Mathematical Sciences; the

Advisory Committee on Mathematics Education; the British Applied Mathematics Colloquium; journal prizes; and mathematical events or meetings.

Further details of all grants that can be applied for can be found on the IMA's website.'

Going Concern

The Trustees have reviewed the assets, income and regular expenditure of the IMA and satisfied themselves that the Institute is in a good financial position. They are satisfied that the IMA is a Going Concern (as described in the Financial Reporting Council document – Going Concern and Liquidity Risk: Guidance for Directors of UK Companies 2009) and have prepared the Financial Statements on that basis.

FUTURE PLANS

The IMA is in a secure financial position for 2021, and from this secure position we are planning a phased return to 'the new norm', as the effects of COVID-19 recede through 2021.

At the beginning of 2021 the position was that all services and activities were planned to be virtual for the first six months. This plan will be reviewed on a regular basis.

The 2021 budget was approved by Council in November 2020 with a planned deficit of -£23,622. This figure represents the first year of a dip in journal sales because of the effects of the pandemic. It is anticipated that this dip will return to normal levels in the next couple of years.

Since the IMA provided a full suite of services in 2020 during the pandemic, it is in a good position to continue with virtual events, transitioning to face-to-face events when this is allowable, and exploring the introduction of hybrid events during 2021. Virtual working and virtual events provided additional benefits to mathematics and members by allowing activities to be available throughout the UK without the personal investment of considerable travel costs [both time and money]. The Institute will consider how to incorporate these benefits into its 'new norm' working. Similarly, services which were successfully introduced in 2020, such as the virtual 'Maths Teas' will be continued.

The effect of the pandemic on membership numbers and revenues will be monitored through 2021. September 2021 also marks the end of the current three-year term of the DfE grant to run the Mathematics Teacher Training Scholarships scheme; and so we will learn during the year whether the DfE wants this scheme to continue into 2022 in England.

The Membership Development Scheme that was an output from the Council Strategy Review of 2017 has now completed its three-year term. The benefits of this scheme will be continued into 2021 and built into normal IMA operations. These include an ongoing focus on attracting members and facilitating their journey to join and stay as members of the IMA through their careers, and the increased activities of promotion via communication, social media and a strong range of services will be maintained. If membership revenues are significantly affected by COVID-19 this will be more clear in April 2021. By mid-January no negative indications had been seen.

Several other membership growth initiatives will be continued:

- encouraging the use of the less complex entry mechanism for MIMA and FIMA for those from academia and Corporate Affiliates;
- continuing focus on transferring the eStudents to Student and Associate Members;

- Undergraduate and Postgraduate grants;
- e16plus Newsletter;
- IMA MathsCareers website, which increases branding exposure to a wide range of students of mathematics from age 11 to graduates, and achieved over 390,000 sessions in 2020;
- The liaison programme with undergraduate and postgraduate mathematics organisations will be continued and expanded where possible. Council considers that the support of students' networking, careers advice and mathematical aspirations, in addition to their formal coursework, is highly beneficial.

The Education Small Grants will be allocated to promote mathematics education. Grants of up to £600 will be allocated up to a ceiling of £6,000.

The IMA will continue to run the Mathematics Teacher Training Scholarships scheme in the academic year 2020/2021.

The programme for Early Career Mathematicians will be supported and expanded.

The IMA will continue to work with like-minded organisations to advance the standards for the professionalisation of those mathematical scientists who work in the field of Data Science.

The Institute's conference programme is run under the Learned Society brief. An initial programme of conferences to be run in 2021 is shown below:

- *Python for A-Level Mathematics and Beyond*, 22 and 23 January 2021, online;
- *IMA Early Career Mathematicians' Conference*, 13 March 2021, online;
- *6th IMA Conference on Mathematics in Defence*, 30 and 31 March 2021, online;
- *3rd Mathematics of Operational Research*, 20-23 April 2021, online;
- *11th IMA International Conference on Modelling in Industrial Maintenance and Reliability (MIMAR)*, 28 June-2 July 2021, online;
- *4th IMA Conference on Nonlinearity and Coherent Structures*, 7-9 July 2021, Loughborough University (or may be online);
- *2nd IMA Conference on the Mathematics of Robotics*, 8-10 September 2021, Manchester Metropolitan University;
- *3rd Induction Course for New Lecturers*, 8 and 9 September 2021, Isaac Newton Institute, Cambridge;
- *IMA Early Career Mathematicians' Conference*, October/ November 2021 (date tbc), online;
- *4th IMA Conference on the Mathematical Challenges of Big Data*, 8-9 December 2021, venue tbc;

- *18th IMA International Conference on Cryptography and Coding*, 14-16 December 2021, venue tbc;
- *12th International Conference on Mathematics in Signal Processing*, December 2021 (date tbc), University of Birmingham.

SOURCES OF FUNDING

Key unrestricted revenue streams were:

- Publications £620,343
- Membership Subscriptions £328,752
- Conference Income £(3,226)

Some of our most significant charitable activities during the year were:

- Promoting Maths £136,361
- Education £25,980
- Maths Today £169,769
- Conference Expenditure £106,823
- Grants £56,325

The expenditure of our incoming resources on these charitable activities was completely in line with our charitable objectives.

The non-current reserves of the Institute on 31/12/2020 were held with the following Finance Organisations: £205,241 is held at the Charity Bank, £207,506 at the Clydesdale Bank, £311,652 at Shawbrook Bank, and £377,198 at Lloyds; and £3,073 at Lloyds held on behalf of the Leslie Fox Prize.

Prepared by David Youdan and Dave Lloyd

Approved by Honorary Treasurer, Professor Andrew Osbaldestin:

Date: 24 March 2021

Approved by President, Dr Nira Chamberlain:

Date: 24 March 2021



Institute of
mathematics
& its applications

Incorporated by Royal Charter

Financial Statements

31 DECEMBER 2020

The Institute of Mathematics and its Applications
Registered Charity Number: 1017777

REPORT OF THE COUNCIL

The Council submits its report and the financial statements of The Institute of Mathematics and its Applications for the year ended 31 December 2020. The Financial Statements have been prepared in accordance with the accounting policies set out on pages 7 and 8 to the accounts and comply with the Institute's Trust Deed, the Charities Act 2011 and 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) – (Charities SORP (FRS 102) as updated by the Charities SORP (FRS 102) update bulletin 1.

PRINCIPAL ACTIVITIES

The principal activity of the Institute during the year was the operation of a learned and professional society for those involved in all areas of mathematics and its applications, working as a charity for the public benefit.

REVIEW OF THE BUSINESS AND FUTURE DEVELOPMENTS

Council considers that the Institute's state of affairs is satisfactory, and that future results will revert to a close to breakeven result.

The Council members also produce a Trustees' Annual Report (2020) (Appendix 2 – attached) which reports Legal and Administrative Information; Activities and Achievements; and Future Plans.

RESULTS

The Statement of Financial Activities on page 4 shows a surplus in reserves of £231,235 for the year compared to a surplus of £95,612 in the previous year. During the year, income of a restricted nature amounting to £80,001 was received. Total unrestricted net assets at the year end amount to £1,261,148 (2019: £1,103,626). Restricted Net assets for 2020 were £151,100 (2019: £77,388).

COUNCIL

The constitution of the Council on 31 December 2020 was as follows:

PRESIDENT

Dr Nira Chamberlain

VICE-PRESIDENTS

Dr P Rowlett
Dr R Pinch
Professor H Wilson (succeeded on 1 January 2021)
Dr M Barons (from 1 January 2021)

HONORARY TREASURER

Professor A Osbaldestin

HONORARY SECRETARIES

Dr C Evans (Succeeded on 1 January 2021)
Professor P Glaister (from 1 January 2021)
Dr M Grove

PAST PRESIDENTS

Professor A Fitt
Professor C Linton
Professor Dame C Hoyles

MEMBERS OF THE COUNCIL

Mr A Apostolou	Professor C Hobbs	Dr S Plata Iturralde
Professor R Bearon	Dr S Lawrence	Professor E Rothead
Professor C Breward	Professor S Lombardo (from 1 January 2021)	Professor N Steele
Mr C Chipperton	Dr F de Melo Viríssimo	Mr N Turner
Dr B Dias	Professor G Niblo	

In addition the following served as members of the Council until their retirement during the year:

Dr D Boyce Professor R Craster Professor P Glaister Dr J Macey Miss W K Karrie Liu

The following completed their term of office as Councillors and Trustees at the end of 2020:

Dr C Evans Professor H Wilson

REPORT OF THE COUNCIL***TAX STATUS***

The Institute is accepted by the HM Revenue & Customs as an educational charity. As a charity, the Institute is exempt from tax on income and gains to the extent these are applied to its charitable objects. No tax charges have arisen in the Institute.

AUDITORS

During the year, Croucher Needham (Essex) LLP were re-appointed as auditors and a resolution to reappoint them as auditors will be put to the members at the Annual General Meeting.

By order of the Council

PROFESSOR P GLAISTER
DR M GROVE

24 March 2021

Catherine Richards House
16 Nelson Street
Southend-on-Sea
Essex
SS1 1EF

TRUSTEES' RESPONSIBILITIES IN THE PREPARATION OF FINANCIAL STATEMENTS

The Trustees (Council members) are responsible for preparing the Trustees' Annual Report and the Financial Statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

The Royal Charter of Incorporation and the law applicable to charities in England & Wales requires the Trustees' (Council members) to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the Institute and of the incoming resources and application of resources of the Institute for that period. In preparing these financial statements, the Trustees (Council members) are required to:

- select suitable accounting policies and then apply them consistently;
- observe the methods and principles in the Charities 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 and;
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Institute will continue in business.

The Trustees (Council members) are responsible for keeping proper accounting records that disclose with reasonable accuracy at any time the financial position of the Institute and to 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 of Incorporation. They are also responsible for safeguarding the assets of the Institute and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

INDEPENDENT AUDITORS' REPORT TO THE TRUSTEES OF THE INSTITUTE OF MATHEMATICS AND ITS APPLICATIONS

We have audited the financial statements of The Institute of Mathematics and its Applications for the year ended 31 December 2020 on pages 4 to 14 together with the Trustees' Annual Report 2020 set out in Appendix 2. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice), including FRS 102 – (Charities SORP (FRS 102) as updated by the Charities SORP (FRS 102) update bulletin 1).

This report is made solely to the charity's trustees as a body, in accordance with 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 anyone other than the charity and the charity's Trustees as a body, for our audit work, for this report, or for the opinions we have formed.

RESPECTIVE RESPONSIBILITIES OF TRUSTEES AND AUDITOR

As explained more fully in the Statement of Trustees' responsibilities set out on page 2 the trustees are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view.

We have been appointed as auditors under section 144 of the Charities Act 2011 and report in accordance with regulations made under section 154 of that Act. Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's (APB's) Ethical Standards for Auditors.

SCOPE OF THE AUDIT OF THE FINANCIAL STATEMENTS

A description of the scope of an audit of financial statements is provided on the Financial Reporting Council's website <https://www.frc.org.uk/auditors/audit-assurance/standards-and-guidance/current-auditing-standards>.

OPINION ON FINANCIAL STATEMENTS

In our opinion the financial statements:

- give a true and fair view of the state of the charity's affairs as at 31 December 2020 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.

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 not consistent with the financial statements; or
- the charity has not kept sufficient 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 require for our audit.

Croucher Needham (Essex) LLP
Statutory Auditor
Market House
10 Market Walk
Saffron Walden
Essex
CB10 1JZ

24 March 2021

Note: Croucher Needham (Essex) LLP is eligible to act as an auditor in terms of section 1212 of the Companies Act 2006.

**STATEMENT OF FINANCIAL ACTIVITIES
FOR THE YEAR ENDED 31 DECEMBER 2020**

	Unrestricted Funds 2020 £	Restricted Funds 2020 £	Total Funds 2020 £	Total Funds 2019 £	Notes
Income and endowments from:					
<i>Donations and legacies</i>					
Appeal Fund, Donations and Bequests	250	-	250	410	
Gift Aid	-	-	-	-	
<i>Charitable activities</i>					
Member Entrance fees	2,804	-	2,804	3,484	
C. Math/C Math Teacher Member Entrance fees	709	-	709	709	
Member Subscription fees	328,752	-	328,752	327,210	
Conference and symposium fees	(3,226)	-	(3,226)	145,816	
Publications income and Institutional subscriptions	620,343	80,000	700,343	664,675	
Miscellaneous income	435	-	435	2,853	
Careers in Mathematics	-	-	-	1,700	
Scholarships	128,053	-	128,053	137,789	
Education	-	-	-	-	
<i>Investment Income</i>	8,522	1	8,523	8,580	16
Total	1,086,641	80,001	1,166,642	1,293,227	
Expenditure on:					
<i>Charitable Activities</i>					
Branches and groups	10,408	-	10,408	14,576	
Conferences	106,823	-	106,823	230,111	
Education	25,980	-	25,980	33,247	
Grants/Donations	56,325	-	56,325	89,645	1a
Promoting Mathematics	136,361	-	136,361	155,495	1c
Scholarships	114,265	-	114,265	130,447	1c
Mathematics Today	169,769	-	169,769	161,029	
Membership	117,867	-	117,867	128,590	
Professional development	53,883	-	53,883	28,985	
Other publications	30,211	6,289	36,500	65,053	
<i>Governance</i>	107,227	-	107,227	160,438	1d
Total	929,119	6,289	935,408	1,197,615	1a
Net movement in funds	157,522	73,712	231,234	95,612	
Reconciliation of funds					
Total Funds brought forward at 1 January 2020	1,103,626	77,388	1,181,014	1,085,402	
Total Funds carried forward at 31 December 2020	<u>1,261,148</u>	<u>151,100</u>	<u>1,412,247</u>	<u>1,181,014</u>	7

No separate Statement of Total Recognised Gains and Losses has been presented as all such gains and losses have been dealt with in the Statement of Financial Activities.

The net movement in funds arises from the charity's continuing operations.
The detailed Income and Expenditure Account (2020) is attached (Appendix 1).

BALANCE SHEET AS AT 31 DECEMBER 2020

	2020 £	2019 £	Notes
FIXED ASSETS			
Intangible fixed assets	-	-	2
Tangible assets	111,983	114,750	3
	<u>111,983</u>	<u>114,750</u>	
CURRENT ASSETS			
Stock	1,485	1,522	4
Debtors unrestricted	348,788	45,815	5
Cash at bank and in hand restricted	151,100	77,388	
Cash at bank and in hand unrestricted	1,227,501	1,401,402	
	<u>1,728,874</u>	<u>1,526,127</u>	
LIABILITIES			
Amounts falling due within one year restricted	-	-	
Amounts falling due within one year unrestricted	428,610	459,865	
	<u>428,610</u>	<u>459,865</u>	6
NET CURRENT ASSETS	<u>1,300,265</u>	<u>1,066,262</u>	
TOTAL ASSETS LESS CURRENT LIABILITIES	<u>1,412,247</u>	<u>1,181,014</u>	
FUNDS			
Restricted funds	151,101	77,388	
Unrestricted funds	1,261,147	1,103,626	
	<u>1,412,247</u>	<u>1,181,014</u>	7

The Financial Statements on page 4 to 14 together with the Trustees' Annual Report (2020) in Appendix 2 were approved and authorised for issue by the Council on 24 March 2021 and signed on their behalf by

PROFESSOR ANDREW OSBALDESTIN

Honorary Treasurer

DR NIRA CHAMBERLAIN

President

**STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED 31 DECEMBER 2020**

Notes

	2020 £	2019 £	
Net Cash (used in)/provided by operating activities	<u>(99,723)</u>	<u>147,925</u>	15
Cash flows from investing activities			
Investment income	8,523	8,580	16
Purchase of fixture and fittings & Equipment	(8,990)	(11,467)	
Net Cash (used in)/provided by investing activities	<u>(466)</u>	<u>(2,887)</u>	
Change in cash and cash equivalents in the year	(100,189)	145,039	
Cash and cash equivalent brought forward	1,478,791	1,333,752	
Cash and cash equivalents carried forward	<u><u>1,378,601</u></u>	<u><u>1,478,791</u></u>	

FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2019**ACCOUNTING POLICIES****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 in the UK and Republic of Ireland (FRS102) (Charities SORP (FRS102)) as updated by the Charities SORP (FRS 102) update bulletin 1, and the Charities Act 2011 and applicable regulations.

TANGIBLE FIXED ASSETS

Fixed assets include properties valued by Chartered Surveyors on an existing use/open market basis. Other fixed assets are stated at historical cost. No fixed asset under £250 is capitalised.

Depreciation is provided on all tangible fixed assets other than freehold land at rates calculated to write each asset down to its estimated residual value evenly over its expected useful life, as follows:-

Freehold buildings	2%
Fixtures, fittings and equipment	15%
Computer equipment	33%

Following the implementation of FRS 102, the charity has followed the transitional provisions to retain the book value of freehold buildings re-valued on 31 December 1991, but not to adopt a policy of revaluation in the future.

INTANGIBLE FIXED ASSETS

The cost of attaining the Royal Charter has been capitalised and has now been written off on a straight line basis over ten years.

STOCK

Stock is valued at the lower of cost and net realisable value. Net realisable value is based upon estimated selling price less further costs expected to be incurred to completion and disposal. Provision is made for obsolete and slow moving items.

FUNDS STRUCTURE

Unrestricted funds comprise those funds which the Trustees are free to use in accordance with the charitable objects. Restricted funds are funds which have been given for particular purposes and projects (see note 7).

LEASED ASSETS AND OBLIGATIONS

All leases are "operating leases" and the annual rentals are charged to the Statement of Financial Activities on a straight line basis over the lease term.

PENSIONS

The Institute operates a defined contribution scheme. The amount charged to the Statement of Financial Activities in respect of pension costs and other post retirement benefits are the contributions in the year.

BRANCHES

The Statement of Financial Activities represents the results of the charity only. The Institute has seven current branches and these are not consolidated on the basis they are not material to the charity. There are no other related parties.

FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2019**ACCOUNTING POLICIES****INCOMING RESOURCES**

All incoming resources are included in the Statement of Financial Activities when the charity is legally entitled to the income and the amounts can be quantified with reasonable accuracy. The following specific policies are applied to particular categories of income:

- Investment income is included when receivable;
- Incoming resources from publications and conferences are accounted for when earned;
- Subscriptions are recognised over the period to which the fees relate.
- Scholarship income is recognised when invoiced.

To the extent that reliable estimations are available with regard to the final settlement of each accounting year's publication income and expenditure, provision is made for the final settlement figure. Where reliable estimations are not available, no provision is made.

RESOURCES EXPENDED

Resources expended are recognised in the period in which they are incurred and include attributable Input VAT that cannot be recovered. Resources expended are allocated to the particular activity where the cost relates directly to that activity.

Governance costs include the costs of governance arrangements that relate to the general running of the charity. These activities provide the governance infrastructure that allows the charity to operate and to generate the information required for public accountability. They include the strategic planning processes that contribute to the future development of the charity.

Direct expenditure is allocated to categories of activity. Where expenditure cannot be directly allocated it represents support costs and is apportioned on a basis consistent with the use of resources, by reference to the number of staff working on each activity.

The Institute makes grants and donations to members of the mathematics community. The purpose of the grants and donations is to facilitate research activity in all areas of mathematics.

GOVERNMENT GRANTS

Incoming resources from grants are accounted for on an accruals basis for re-imburement of expenses incurred and entitlement to grant allocation in line with signed contracts.

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2020**

1.Expenditure on:

a) Analysis of expenditure on	Support Costs £	2020	Staff Costs £	2020	2019	Notes
		Direct Costs £		Total £	Total £	
<u>Unrestricted funds</u>						
Operating activities in furtherance of Charity's objectives						
Branches and groups	1,496	2,561	6,351	10,408	14,576	
Conferences	18,383	10,416	78,024	106,823	230,111	
Education	4,204	3,933	17,843	25,980	33,247	
Grants/donations	3,919	35,773	16,633	56,325	89,645	
Promoting Mathematics	22,658	17,534	96,169	136,361	155,495	
Scholarships	12,825	47,005	54,435	114,265	130,447	
Mathematics Today	19,380	68,132	82,257	169,769	161,029	
Membership	20,948	8,008	88,911	117,867	128,590	
Professional development	9,405	4,559	39,919	53,883	28,985	
Other publications	3,919	9,659	16,633	30,211	31,114	
Governance	18,238	11,572	77,417	107,227	160,438	
Total unrestricted resources expended	135,376	219,152	574,592	929,119	1,163,677	1b
<u>Restricted funds</u>						
Operating activities in furtherance of Charity's objectives						
QJMAM	-	6,289	-	6,289	33,939	
Mathematics Today (Leslie Fox Prize Fund award)	-	-	-	-	-	
Total resources expended	135,376	225,441	574,592	935,408	1,197,616	
b) Analysis of Total Support Costs						
	Governance	Conferences	Education	Maths Today	Membership	Other
<u>Unrestricted funds</u>	£	£	£	£	£	£
DMH premises\18 Nelson Street	3,177	3,201	732	3,375	3,648	9,443
Communications & IT	4,400	4,434	1,014	4,675	5,053	13,078
Postage & printing	896	903	206	952	1,029	2,663
Financial costs	8,181	8,246	1,886	8,694	9,397	24,326
Depreciation	1,586	1,598	365	1,685	1,821	4,713
Total unrestricted	18,238	18,383	4,204	19,380	20,948	54,224
	£					
Governance	18,238					
Conferences	18,383					
Education	4,204					
Maths Today	19,380					
Membership	20,948					
Other	54,224					
	135,376					

Direct expenditure is allocated to categories of activity. Where expenditure cannot be directly allocated it represents support costs and is apportioned on a basis consistent with the use of resources, by reference to the number of staff working on each activity.

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2020**

c) Analysis of promoting mathematics costs

	Support Costs	Direct Costs	Staff Costs	2020 Total	2019 Total
	£	£	£	£	£
Maths Careers	4,275	5,152	18,145	27,572	36,809
Maths Matters	9,192	3,086	39,012	51,290	55,023
Other	9,192	9,296	39,012	57,500	63,664
Total promoting mathematics costs	22,658	17,534	96,169	136,361	155,495
Scholarships	12,825	47,005	54,435	114,265	130,447
	35,483	64,539	150,604	250,626	285,942

Maths Careers is only supported by the Institute of Mathematics and its Applications.

d) Analysis of governance costs

	Support Costs	Direct Costs	Staff Costs	2020 Total	2019 Total
	£	£	£	£	£
Audit fees - Audit of Financial Statements	-	8,735	-	8,735	7,920
Legal and professional	-	-	-	-	2,500
Irrecoverable VAT	13,377	-	-	13,377	14,769
Cost of AGM and Trustee travel etc.	-	1,840	-	1,840	35,717
Apportionment of staff costs	-	-	77,419	77,419	66,388
General overhead costs	5,856	-	-	5,856	33,144
Total governance costs	19,233	10,575	77,419	107,227	160,438

e) Analysis of grants expended

	2020 Total	2019 Total
	£	£
Educational Grants	2,846	4,049
Small Grants	3,886	12,115
University Liaison Officer Grants	7,200	10,678
Donation/Sponsorship	1,138	7,040
CMS	14,529	32,149
HE Educational Grants	3,500	500
ACME	-	7,000
	33,099	73,532
Less: Allocated to development of membership growth £8,000.	-	(8,000)
	33,099	65,532

See notes 6, 8 and 10 in the Trustees Annual Report where details are given for Educational Grants, Small Grants & University Liaison Officer Grants. The grants are payable to individuals £3,886 and institutions £29,213

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2020**

2. INTANGIBLE FIXED ASSETS

	£
Cost: 1st January 2020 and as at 31st December 2020	<u>47,131</u>
Amortisation: as at 1st January 2020 and 31st December 2020	<u>47,131</u>
Net Book value as at 1st January 2020 and as at 31st December 2020	<u>-</u>

Intangible fixed assets represent legal costs incurred in 1992 in respect of the application for a Royal Charter.

3. TANGIBLE FIXED ASSETS

	Freehold property & land	Fixtures fittings & equipment	TOTAL
Cost or valuation:	£	£	£
Property 1 January 2020	189,750	155,270	345,020
Land 1 January 2020	40,250	-	40,250
Additions	-	8,990	8,990
Disposals	-	-	-
31 December 2020	<u>230,000</u>	<u>164,260</u>	<u>394,260</u>
Representing assets stated at:			
Cost	-	164,260	164,260
Valuation	<u>230,000</u>	-	<u>230,000</u>
	<u>230,000</u>	<u>164,260</u>	<u>394,260</u>
Depreciation			
1 January 2020	128,776	141,744	270,520
Charged in the year	4,600	7,156	11,756
Disposals	-	-	-
31 December 2020	<u>133,376</u>	<u>148,900</u>	<u>282,276</u>
Net book value:			
31 December 2020	<u>96,624</u>	<u>15,359</u>	<u>111,983</u>
31 December 2019	<u>101,224</u>	<u>13,526</u>	<u>114,750</u>

The freehold property was revalued at 31 December 1991 by Wheeldon and Deacon, Chartered Surveyors on an existing use open market basis.

The original cost of the freehold land & property was £219,074.

The Council considers that the current value of the property (Catherine Richards House) is to the best of the information available in excess of the 1991 revaluation.

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2020**
4. STOCKS

	2020	2019
	£	£
Goods for resale	<u>1,485</u>	<u>1,522</u>

5. DEBTORS

	2020	2019
	£	£
Due within one year:		
Trade debtors	317,324	3,889
Prepayments and accrued income	<u>31,464</u>	<u>41,925</u>
	<u>348,788</u>	<u>45,815</u>

Trade and other debtors are recognised at the settlement amount due after any trade discount offered.

Prepayments are valued at the amount prepaid after taking account of any trade discounts due.

6. CREDITORS

	2020	2019
	£	£
Amounts falling due within one year:		
Trade creditors	3,642	33,250
Other taxation and social security costs	63,693	59,264
Accruals	26,123	26,779
Deferred income	<u>335,152</u>	<u>340,572</u>
	<u>428,610</u>	<u>459,865</u>

Creditors and provisions are recognised where the charity has a present obligation resulting from a past event that will probably result in the transfer of funds to a third party and the amount due to settle the obligation can be measured or estimated reliably. Creditors and provisions are normally recognised at their settlement amount after allowing for any trade discounts due.

	2020	2019
	£	£
Deferred income b/fwd.	340,572	331,148
Amounts released	(340,572)	(331,148)
Deferred in year	<u>335,152</u>	<u>340,572</u>
Deferred income c/fwd	<u>335,152</u>	<u>340,572</u>

Deferred income mainly consists of publishing income relating to 2020 and will therefore be released next year.

7. MOVEMENTS IN FUNDS

The transfer from the revaluation reserve represents the difference between the depreciation charge of the property on an historic cost basis compared to the depreciation charge based on the revalued cost.

	2020			Transfer	2019
		Incoming	Resources	between	
	£	resources	expended	funds	£
		£	£	£	
Restricted reserves					
Leslie Fox Prize Fund	3,073	1	-	-	3,072
QJMAM	148,027	80,000	(6,289)	-	74,316
	<u>151,101</u>	<u>80,001</u>	<u>(6,289)</u>	<u>-</u>	<u>77,388</u>
Unrestricted funds					
Free reserve	1,204,030	1,078,118	(929,119)	-	1,055,031
Gains/(losses) on investment assets	52,942	8,522	-	-	44,420
Revaluation reserve	4,174	-	-	-	4,174
	<u>1,261,147</u>	<u>1,086,640</u>	<u>(929,119)</u>	<u>-</u>	<u>1,103,625</u>
Total restricted and unrestricted funds	<u>1,412,247</u>	<u>1,166,641</u>	<u>(935,408)</u>	<u>-</u>	<u>1,181,013</u>

The Leslie Fox Prize Fund may be used to award biennially for best submission in Numerical Analysis.

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2020**

8. ANALYSIS OF NET ASSETS BETWEEN FUNDS

	Tangible fixed assets	Net current assets	Fund balance balance
	£	£	£
Unrestricted funds	111,983	1,149,164	1,261,146
Restricted funds	-	151,101	151,101
	<u>111,983</u>	<u>1,300,265</u>	<u>1,412,247</u>

9. COMMITMENTS UNDER OPERATING LEASES

At the reporting end date the charity had outstanding commitments for future minimum lease payments under non-cancellable operating leases, which fall as follows:

	2020	2019
	£	£
Plant and machinery		
Within one year	3,210	3,929
Between two and five years	4,344	7,926
Building		
Within one year	5,000	5,000
Between two and five years	<u>5,000</u>	<u>10,000</u>
	<u>17,554</u>	<u>26,856</u>

10. PENSION COSTS

The Institute makes payments to personal pension funds set up by individual members of staff. Contributions payable by the Institute amounted to £51,144 (2019: £51,986).

11. EMPLOYEES

	2020	2019
	No.	No.
The average weekly number of persons employed by the Institute regardless of whether they are part time or full time during the year was:		
Management:		
£80,001 - £90,000	1	1
£70,001 - £80,000	-	-
Below £60,000	1	1
Administration:	15	15
Scholarships	<u>1</u>	<u>2</u>
	<u>18</u>	<u>19</u>

Pension contributions made on behalf of 1 amounted to £1,003 for higher paid employees (2019:1 £984).

	2020	2019
	£	£
Staff costs for the above persons:		
Salaries	472,754	462,240
Pension contributions	56,772	51,878
Social security costs	42,207	38,580
Other costs	<u>2,859</u>	<u>11,798</u>
	<u>574,592</u>	<u>564,496</u>

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2020**

12. TAXATION

The Institute is accepted by HM Revenue & Customs as an educational charity and as such is not subject to corporate taxation for activities within its charitable objects.

13. RELATED PARTY TRANSACTIONS

There were no related party transactions during the year.

During the year payments were made to Dr Snezana Lawrence in relation to services provided as an assessor for the mathematics teacher training scholarships amounting to £1,469 (2019 £525 relating to services provided by Edward Rohead as an assessor on the teacher training scholarships). In addition, re-imbursed expenses for travel and subsistence to Council Members amounted to £1,840, 11 members re-imbursed (2019: £10,458, 21 members re-imbursed).

14. SCHOLARSHIPS

In 2012 the Teaching Agency approached the IMA to run a Mathematics Initial Teacher Training Scholarship Scheme. Under such a scheme the scholarships would be paid by the DFE (for England only) to run the Scheme. In 2012 costs associated with the negotiation were borne by the IMA. In addition DFE paid for a small grant to develop the submission. DFE announced on 21st December 2012 that the Scheme would be run. The amounts awarded by the DFE were as follows:

Year	Award	Year	Award
2013	209,000	2017	229,826
2014	260,000	2018	194,543
2015	239,120	2019	137,739
2016	197,800	2020	128,053

15. Reconciliation of net movement in funds to net cash flow from operating activities

	2020	2019
	Total	Total
	£	£
Net movement in funds	231,234	95,612
Add back depreciation	11,756	14,831
Deduct investment income	(8,523)	(8,580)
Decrease/(increase) in stock	37	(548)
Decrease/(increase) in debtors	(302,973)	54,781
(Decrease)/increase in creditors	(31,255)	(8,170)
Net cash provided by/(used in) operating activities	<u>(99,723)</u>	<u>147,925</u>

16. INVESTMENT INCOME

	2020	2019
	Total	Total
	£	£
Interest on cash deposits	8,523	8,580

Investment income includes £1 (2019 £2) in respect of restricted funds.

**THE INSTITUTE OF MATHEMATICS AND ITS APPLICATIONS
INCOME AND EXPENDITURE ACCOUNT
FOR THE PERIOD 1st January - 31 December 2020**

Appendix 1a

	Unrestricted Funds 2020	Restricted Funds 2020	Total Funds 2020	Total Funds 2019
	£	£	£	£
Incoming resources				
Entrance/Transfer fees	3,513		3,513	4,193
Subscriptions	328,752		328,752	327,210
Publications	620,343		620,343	584,675
Miscellaneous Income	435		435	2,853
Appeal fund and bequests	250		250	410
Interest Received	8,523	1	8,524	8,580
Conference income	(3,226)		(3,226)	145,816
Careers in M & 50th Ann	-		-	1,700
Scholarships & HE STEM	128,053		128,053	137,789
	<u>1,086,642</u>	<u>1</u>	<u>1,086,643</u>	<u>1,213,226</u>
Resources expended				
Salaries, pension & NHI	571,733		571,733	552,698
Other staff expenses	2,859		2,859	11,798
Office overheads	23,640		23,640	31,725
Telephone	4,458		4,458	5,483
General printing, post. & stat.	6,649		6,649	14,937
Office equipment hire & maint.	4,515		4,515	2,389
Council and committee	10,159		10,159	51,910
Branches and groups	1,000		1,000	3,340
Education	2,356		2,356	11,233
Publications (inc. Maths Today)	68,190		68,190	70,152
General expenses	3,247		3,247	14,782
Bank charges	1,831		1,831	8,159
Legal and professional	-		-	2,500
Audit and accounts	50,800		50,800	32,391
Depreciation	8,702		8,702	10,231
Overseas activities	-		-	-
Amortisation of property	3,066		3,066	4,600
Subscription to other bodies	20,577		20,577	17,293
Repairs and renewals	-		-	6,592
Web-site expenses	8,309		8,309	10,501
Presidential Address	2,309		2,309	-
Conference Direct Costs	3,518		3,518	105,840
Grants/Donations	34,302		34,302	65,856
Strategy Review Weekend	-		-	-
Information Technology	-		-	2,387
I. T. Consultancy	1,771		1,771	1,320
Careers in M & 50th Ann	6,634		6,634	15,751
Scholarships & HE STEM	42,192		42,192	59,080
Irrecoverable VAT	13,377		13,377	14,769
Suspense Account	-		-	92
Bad Debt	-		-	-
De Morgan House Rental	13,449		13,449	8,991
De Morgan House furnishing	-		-	-
De Morgan House Other	6,624		6,624	4,428
18 Nelson Street Rental	3,503		3,503	5,521
18 Nelson Street Other	2,102		2,102	3,313
Development - SRW	126		126	7,590
Development - Membership Growth	52		52	3,027
Development - Database & Web	4,285		4,285	3,000
Development - Services	2,784		2,784	-
	<u>929,119</u>	<u>-</u>	<u>929,119</u>	<u>1,163,677</u>
Unrestricted Surplus/(Deficit)	<u>157,524</u>	<u>-</u>	<u>157,525</u>	<u>49,549</u>
Incoming resources				
Publications		80,000	80,000	80,000
	-	80,000	80,000	80,000
Resources expended				
Publications		6,289	6,289	33,939
	-	6,289	6,289	33,939
Restricted Surplus/(Deficit)	<u>-</u>	<u>73,712</u>	<u>73,712</u>	<u>46,061</u>
Overall Surplus/(Deficit)	<u>157,524</u>	<u>73,712</u>	<u>231,236</u>	<u>95,610</u>

THE INSTITUTE OF MATHEMATICS AND ITS APPLICATIONS
BALANCE SHEET AS AT 31 December 2020

Appendix 1b

	Unrestricted	31-Dec-20 Restricted	Total	31-Dec-19 Total	Total
	£	£	£	£	£
FIXED ASSETS					
Freehold Property	96,624			101,224	
Fixtures and equipment	<u>15,357</u>			<u>13,526</u>	
			111,981		114,750
CURRENT ASSETS					
Stocks	1,485			1,522	
Trade debtors	317,324			3,889	
Prepayments and accrued inc.	31,464			41,925	
Cash at bank and in hand	<u>1,378,603</u>			<u>1,478,791</u>	
	1,728,876	-	1,728,876	1,526,127	
CREDITORS due within 1 year	<u>428,610</u>		428,610	<u>459,865</u>	
NET CURRENT ASSETS/(LIABILITIES)			<u>1,300,266</u>		<u>1,066,262</u>
			<u>1,412,247</u>		<u>1,181,014</u>
CAPITAL AND RESERVES					
Income and expenditure account			1,261,149		1,103,624
Restricted income and expenditure account			151,099		77,388
			<u>1,412,247</u>		<u>1,181,014</u>
NOTES					
Creditors due within 1 year					
Trade creditors	3,642			33,250	
Social security and other taxes	63,693			59,264	
Accruals and deferred income	<u>361,275</u>			<u>367,351</u>	
	<u>459,865</u>			<u>459,865</u>	
INCOME AND EXPENDITURE ACCOUNT					
Balance as at 1st January 2020	1,099,451	77,388	1,176,840		
Surplus for the 12 months	<u>157,525</u>	<u>73,711</u>	<u>231,237</u>		
Balance as at 31 December 2020	<u>1,256,976</u>	<u>151,099</u>	<u>1,408,077</u>		

Our Ref: 30236/JOEW/309217
12 February 2021

The Institute of Mathematics and its Applications
Catherine Richards House
16 Nelson Street
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**CROUCHER
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Dear Sirs,

In accordance with our normal practice we are writing to draw your attention to various matters which arose during the course of our audit of the charity's accounts for the year ended 31 December 2020.

1. We have no comments to make concerning the qualitative aspects of the entity's accounting practices and financial reporting.
2. We did not encounter any significant difficulties during the audit and there are no significant findings from the audit to draw to your attention.
3. A draft of our proposed letter of representation has also been sent. In all respects the letter is routine.
4. All unadjusted misstatements determined during the course of our audit can be seen on the enclosed schedule. We did not note any significant weaknesses with systems or processes.
5. As you are aware from our letter of engagement, our audit procedures were directed towards testing the accounting systems in operation upon which we have based our assessment of the accounts. No significant weaknesses in accounting systems and processes were identified during the course of our work. Please note that our review is not meant to be a full and accurate reflection of all weaknesses that may be present in your system.
7. We do not propose any modifications to our audit opinion and hence will be issuing a clean audit report.
8. The firm and the audit engagement team have complied with relevant ethical requirements concerning independence.

We would like to take this opportunity of expressing our thanks to your staff for their assistance during the course of our audit.

Please note that this report has been prepared for the sole use of The Institute of Mathematics and its Applications. It must not be disclosed to third parties, quoted or referred to, without our prior written consent. No responsibility is assumed by us to any other person.



The purpose of the audit was to enable us to express an opinion on the financial statements. The audit included consideration of internal control relevant to the preparation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of internal control. The matters reported above are limited to those deficiencies that the auditor has identified during the audit and that the auditor has concluded are of sufficient importance to merit being reported to those charged with governance.

If we can be of any further assistance, please contact James Marchant.

Yours faithfully

Croucher Needham (Essex) LLP

Croucher Needham (Essex) LLP

Enc
