

**JAMES CLERK MAXWELL FOUNDATION**

**ANNUAL REPORT AND SUMMARY ACCOUNTS**

**Year ended 31 December 2017**

# **JAMES CLERK MAXWELL FOUNDATION**

(Scottish Charity Number SC015003)

## **Trustees' Annual Report and Accounts for the year ended 31 December 2017**

### **HONORARY PATRON**

Professor Peter Higgs CH FRS FRSE

### **TRUSTEES**

David O. Forfar, MA FFA MMath DipStats FSS FIMA CMath FRSE (Chairman)

Professor David S. Ritchie, MA FRMetS FRSE (Honorary President)

Professor Peter M. Grant, OBE PhD Hon Dr h.c. HonDEng LFIEEE FEng FRSE (Secretary)

Dr John W. Arthur, BSc PhD FInstP FIET SMIEE FEng FRSE (Property)

Professor J. Chris Eilbeck, BA PhD FRSE (Meetings)

David N. Peacock, IEng FIET (WWW master)

Sir Michael Atiyah, OM HonDSc HonFEng HonFMedSci HonFFA PastPresident(PP)RS PPRSE

Dr Richard C. Dougal, BSc PhD CPhys FInstP

Professor Dugald B. Duncan, BSc PhD FIMA (from 1 January 2018)

Professor T. Alastair Gillespie, BA PhD HonDSc FRSE

Professor Malcolm S. Longair, BSc MA PhD HonLLD FRS FRSE

Dr A. David Milne, OBE PhD HonDEng HonDSc FIET SMIEE FEng FRSE

Dr Susie P. Mitchell, BSc PhD

Professor Roland A. Paxton, MBE MSc PhD HonDEng CEng FICE FRSE

Dr James Rautio, BSEE MS PhD FIEEE

Dr John S. Reid, PhD FInstP CPhys MLitt FRAS FRMetS

Professor John F. Roulston, OBE DEng HonDSc FEng FRSE

Professor Alan C Shotter, BSc ARCS DPhil CPhys FInstP FRSE

Professor Neil Graham BSc PhD FRSC FIM FRSE (up to 10 September)

Dr. Walter Scott BSc PhD FRSE (up to 25 May )

Treasurer: Bruce K. C. Lee, MA CA

### **Contact address**

James Clerk Maxwell Foundation, 14 India Street, Edinburgh, EH3 6EZ.

### **Recruitment and appointment of Trustees**

Trustees are selected from suitably qualified persons who have an interest in James Clerk Maxwell.

### **Governing document**

Deed of Declaration of Trust (registered 11 February 1977).

### **Charitable purposes**

As set out in Deed of Declaration of Trust, 4th Schedule.

### **Activities and achievements**

See Trustees Report for the year ended 31 December 2017.

### **Reserves**

At 31 December 2017 the Foundation had bank account funds of £57,654 plus investments valued at £47,588 giving a total reserve of £105,242.

## **Trustees' Report for the year ended 31 December 2017**

### **TRUSTEES AND FRIENDS**

The Foundation noted with regret during 2017 the resignation as trustees of Prof Neil Graham and Mr Walter Scott. Prof Dugald B Duncan was appointed as a new trustee. At our 2018 Annual General Meeting, we shall welcome Mr. Ben Thomson and Dr Isobel Falconer as Trustees.

The Foundation appointed a further 'Friend of the Foundation': Dr Brian W Flynn from Edinburgh. Together with Dr Lindsay, Dr Flynn has agreed to assist Edinburgh based trustees with museum visitor hosting.

### **CHARITABLE GRANTS AWARDED**

Edinburgh International Science Festival Maxwell lecture by Trevor Gill, formerly Technical Director of Vodafone.

Maxwell Prize (awarded jointly with the Mackinnon/Macneill Trust) to an outstanding student in science or engineering from the West of Scotland on entering university.

University of Edinburgh PhD studentship support in the Institute for Digital Communications.

Both Dumfries and Midlothian Schools Science Festivals.

Scottish Mathematics Council.

Scottish Mathematics Masterclass.

Edinburgh Academy Prize.

### **UPKEEP OF THE HOUSE**

There was further continuing significant expenditure in 2017 on: redecoration, the procurement of a new library bookcase and other sundry repairs.

### **FINANCIAL POSITION**

The statement of accounts for the year ended 31 December 2017 shows an overall income of £34,650 (predominately rental) including donations totalling £1,994. Our total expenditure of £30,712, included charitable donations totaling £8,050, Foundation development and outreach activities (such as house maintenance, updating displays, newsletter production and distribution) of £22,587, giving a slight excess of income over expenditure. We further opened an Investment Dealing Account with the Alliance trust during this year purchasing £44,890 of investments whose value at the year end was £47,588. The balance at the banks at 31 December 2017, including our investments, amounted to £105,242.

### **NEWSLETTER**

The Eighth (Spring 2017) Edition of the Newsletter included an article on *The History of Radar* by Prof Hugh Griffiths, University College London and issue Nine (Autumn 2017) featured *Clerk Maxwell and the complex behaviour of an object released from rest in a fluid* by Prof Keith Moffatt, University of Cambridge plus *Maxwell on Physical Standards* by the Chair of the Foundation. The Tenth Edition (Spring 2018) will include an article by Prof. Martin Hendry,

University of Glasgow, on the *Discovery of Gravitational Waves* and an article by Prof. Elisabetta Strickland, University of Rome, on the Scottish scientist *Mary Somerville*.

It is appreciated by the Foundation that the printing of the Newsletters (which are available on our website) was undertaken, pro bono, by LEONARDO, Crew Toll Edinburgh (formerly SELEX Galileo).

## **MUSEUM**

We updated our visits brochure to better match to our recently revised and updated displays see: [http://www.clerkmaxwellfoundation.org/JCMF\\_brochure\\_v3.pdf](http://www.clerkmaxwellfoundation.org/JCMF_brochure_v3.pdf). We are grateful to the Museum of Communications in Burntisland who have loaned us a coherer to accompany to our spark generator display covering early communications equipment. We had a visit from Professor Christopher Hall, the RSE curator, to discuss future collaboration and sharing of electronic resources between the RSE and the Foundation.

## **SCHOOLS OUTREACH**

Several of our Trustees are investigating developing material on Maxwell for use as teaching aids in schools. We initiated this with a meeting with Kirsty McFaul from Education Scotland. Our initial briefs have subsequently been reviewed by Aileen Hesketh and Irene Somerville, both local Scottish physics teachers.

## **VISIT to INDIA STREET by the Dr Jackie Lee**

In September 2017, we hosted a week long visit from Dr Jackie H-C Lee who came from California to request assistance from our archive on his developing Virtual Reality material on Faraday and Maxwell.

## **OUTREACH**

Copies of the new wall panel displays within 14 India Street on Maxwell's scientific achievements (available at [www.clerkmaxwellfoundation.org/html/media\\_library.html](http://www.clerkmaxwellfoundation.org/html/media_library.html)) are now displayed in both the Schools of Engineering and Physics & Astronomy at the University of Edinburgh.

Two of our trustees, John Arthur and Peter Grant, published a two-part article *James Clerk Maxwell and Electromagnetics* in the Museum of Communications 2017 newsletters TRANSMITTING issues 82 and 83.

## **FUTURE PLANNING**

We are still in the process of attempting to secure permission to mount explanatory plaques to accompany the George Street statue to James Clerk Maxwell to better highlight Maxwell's importance.

## **PRESENTATIONS**

Presentations on James Clerk Maxwell were made to various groups who visited the house. Major hosted visits were:

27 March - 40 Italian students

27 March - 21 International Women's Group Edinburgh

26 April - Napier former staff association

1 November - 10 Physics students from the Dundee University

Two of our Trustees provided external presentations on James Clerk Maxwell:

24 January - Dunfermline Carnegie Rotary Club

3 May - Rotary Club of Dalkeith

## **VISITS**

The number of visitors to the birthplace exceeded 250 with a very significant increase in those from the USA. The trustees and friends hosted over 65 individually guided visits, for which the visitor profile was: 40% from the UK; 25% from USA; 25% from EU; 5% from Asia; and 5% from Australia plus the rest of the world. In addition an estimated 200 people visited on the Edinburgh September Doors Open Day.