

# JAMES CLERK MAXWELL FOUNDATION

**ANNUAL REPORT**  
**Year ended 31 December 2024**

**JAMES CLERK MAXWELL FOUNDATION**  
(Scottish Charity Number SC 015003)

Trustees' Annual Report and Accounts for the year ended 31 December 2024

**TRUSTEES**

**Dr David Kerridge, MBE**

Chair of Foundation from April 2024, Chair of Governance Committee, Member of Outreach Committee, *ex officio* member of Nominations Committee; Trustee without office until April 2024

**Dr Chris Pritchard**

Secretary and Chair of Editorial Group from April 2024; Trustee without office until April 2024

**Dr Alan Walker, MBE**

Treasurer from April 2024, Chair of Outreach Committee, Member of Property and Outreach Committees; Chair of Foundation until April 2024

**Mrs Catherine M. Booth**

Chair of Property Committee, Member of Outreach Committee and Visits Coordinator; Secretary until April 2024

**Dr Steve Drasco**

Trustee from April 2024 until December 2025; Member of IT, Property and Outreach Committees

**Professor Dugald B. Duncan**

Webmaster, Chair of IT Committee, Member of Governance Committee

**Dr Catherine Dunn**

Trustee, Member of Outreach Committee and Editorial Group from April 2024

**Professor Isobel Falconer, MBE**

Trustee and Member of IT Committee until April 2024

**Mr David O. Forfar**

Trustee and *Newsletter* Editor until April 2024

**Professor Martin A. Hendry, MBE**

Chair of Nominations Committee, Member of Outreach Committee and Editorial Group

**Dr James C. Rautio**

Member of Nominations and Outreach Committees

**Dr Matjaz Vidmar**

Trustee from April 2024

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

**Recruitment and appointment of Trustees**

Trustees are selected from suitably-qualified persons with an interest in the works of James Clerk Maxwell. A Nominations Committee of three Trustees and seven others is chaired by Martin Hendry.

**Governing document** Revised Deed of Declaration of Trust (2021).

**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 2024.

## **JAMES CLERK MAXWELL FOUNDATION TRUSTEES' REPORT FOR THE YEAR ENDED 31 DECEMBER 2024**

### **TRUSTEES**

Professor Isobel Falconer and Mr David Forfar resigned as Trustees in April 2024. We welcomed Dr Catherine Dunn and Dr Matjaz Vidmar as new Trustees in April 2024. Catherine is a leading authority on the teaching of physics. She taught at St Leonard's School and is now heavily involved with the Institute of Physics and especially SSERC. Matjaz is a Lecturer in Engineering Management and Deputy Director of the Institute for the Study of Science, Technology and Innovation at the University of Edinburgh.

We congratulate Dr Chris Pritchard, the Foundation's Secretary, who was the recipient of the Scottish Mathematical Council's (Lifetime) Achievement Award for 2024.

### **FELLOWS, FRIENDS, AMBASSADORS AND VOLUNTEERS**

We value the support and enthusiasm that all our Fellows, Friends and Ambassadors contribute to the Foundation, and are very grateful for the help which our volunteers give us. Dr John Arthur, both Fellow and our Curator, continues to be an invaluable consultant and source of advice for enquiries received by the Foundation. Two of our Fellows, namely Professors Peter Grant and Alan Shotter, continue to lead tours and talk to visitors. They have given the Foundation long service, and have a wealth of knowledge and experience, which they readily share with current Trustees. Peter Grant is frequently the host who delivers an introductory talk to appreciative audiences when large groups visit the Foundation. Former Physics Lecturer, Dr Steve Drasco has also become one of our established tour guides. With experience in dealing with problems in rented properties he is now a valuable member of the Property Committee. Other volunteers have helped in various ways. Some India St neighbours and enthusiastic former visitors helped us with Doors Open Days, for which we were also grateful to have student volunteers.

### **CHARITABLE GRANTS AWARDED**

Again in 2024 we had to undertake and pay for further major maintenance work in the house, so our funds for disbursement were limited to:

- Edinburgh Academy Maxwell Physics Prize

Lapsed support for the Scottish Mathematical Council's Mathematical Challenge competition will be restored for 2025.

### **PUBLIC ACTIVITIES IN 2024**

#### **Doors Open Days**

We opened for 4 hours on two afternoons during the designated Edinburgh Open Doors weekend in September 2024. Among the stewards we had on duty were students and post-docs, volunteers with an interest in Maxwell, and India St neighbours. 298 visitors came along, and we received many favourable comments.

#### **Pre-arranged large group visits (not including Doors Open)**

As part of large groups, there were 404 visitors to the house. These groups included:

- Aviation Preservation Society Scotland
- International Telecommunications Union
- Institute of Energy Systems
- Harlaxton College students
- St Joseph's College in Dumfries (secondary school) pupils
- New Scientist Travel Group
- Society of Photo-Optical Instrumentation Engineers (SPIE)
- Delegates from the European Conference on Antennas and Propagation (EUCAP)
- Mathematicians attending international workshop

### **Individual visitors**

Maxwell's home continues to attract a range of individual visitors. Indeed, among electrical engineers, scientists, lecturers, teachers, students and knowledgeable tourists from many countries were:

- Professor Bruce Hunt, who is currently writing a biography of Maxwell
- A retired Norwegian Professor who worked with Richard Feynman
- Two visitors from Applied Physics Laboratory, Johns Hopkins University
- An artist interested in Maxwell and colour
- A Japanese Professor of Linguistics
- S5 and S6 school pupils
- An American poet
- Someone who works with Apple in San Francisco
- Visitors celebrating special milestones – birthdays, anniversaries and the like

The total number of individual visitors to the house in 2024 was 318.

### **India Street Association**

We have a warm reciprocal collaboration with our neighbours in the India Street Association. We have been happy to allow them to hold committee meetings on our premises, and they respond willingly when we occasionally ask for their help.

### **TENANCY**

The International Centre for Mathematical Sciences (ICMS) occupied the second-floor offices during 2024 and will continue to do so until at least May 2026 when its current lease expires. We are pleased to have this body of researchers as tenants in 14 India St. and hope that the tenancy agreement is extended. Those Trustees and others who conduct tours and otherwise spend time in the house enjoy meeting the visiting mathematicians or scientists when they come to work in research collaborations.

### **STEWARDSHIP OF 14 INDIA ST**

The Foundation has purchased a portrait of Professor Peter Higgs, painted by his daughter-in-law, Suzanne Kemplay, which is now mounted near the front door of the house. The portrait shows him standing outside 14 India St holding a newspaper. It was his daily custom to walk via India St to and from the newsagent. In 2013, Professor Higgs was a joint recipient of the Nobel Prize in Physics, 'for the theoretical discovery of a mechanism that contributes to our understanding of the origin of mass of subatomic particles...' The portrait displayed in Maxwell's birthplace, represents the fact that this discovery relies on Maxwell's science.

An apple tree sapling was supplied by the National Trust who run Woolsthorpe Manor, former home of Sir Isaac Newton, and planted in the garden at 14 India St. Although visitors to the house have no access to the garden, it can be viewed from windows above. A further three apple trees representing Newton, Maxwell and Einstein have been planted in Moray Place Garden, and are awaiting a plaque prepared by us to explain their significance to Garden visitors. Although the Garden is privately owned by the Moray Feu, it is open to the public for special events throughout the year. We have been issued with a key for the Garden, and Moray Feu have given us permission to conduct occasional visitors there.

**Reserves** At 31 December 2024 the Foundation had bank account funds of £33,432 (2023: £22,984), which included restricted funds of £2,281 for ClerkMaxwell@200 activities, plus investments valued at £84,673 (2023: £64,342) giving a total reserve of £118,105 (2023: £87,326).

## FINANCIAL POSITION

The statement of accounts for the year ended 31 December 2024 shows an overall income of £38,735, plus a grant of £2,281 from the Institute of Physics for ClerkMaxwell@200 activities. Our total expenditure of £30,568 included the above charitable donations totalling £70. Foundation development and outreach of £481 for outreach activities and web hosting was also included here.

The value of our investments at the year-end was £84,673.

In summary the balance of our reserves over 2024 was £118,105.

## PRESENTATIONS AND PUBLICATIONS IN 2024

The following talks were given by Trustee, **Martin Hendry**, in 2024. In each case, the title is followed by the location or venue and the date. The aggregated audience for these talks was 5670.

Exploring the dark side of the universe	Gretna	18 January
	Bishopbriggs Academy	20 March
	North Lanarkshire Schools	13 November
We need to talk about Kelvin	Glasgow University Physics Society	13 February
	DSP Kirkcudbright + schools talks	16 May
	World SciFi Convention, Glasgow	8 August
	Norwegian Physics Society, Oslo	10 August
	IOP Seniors Event, Glasgow University	21 August
	Antonine Probus Club, Milngavie	2 September
	Lomond Probus Club, Drymen	10 October
	Avondale, Strathaven	14 October
Life in the universe	KESS Lecture, Kilmarnock	12 November
Life in the universe	Kirkcudbright Academy	18 January
	Kirkcudbright Dark Space Planetarium	18 January
Listening to Einstein's universe	IOP Schools talk, Dublin City University	8 February
	IOP Schools talk, University of Limerick	21 February
	IOP Schools talk, University Coll. Cork	22 February

	IOP Schools talk, University of Galway	23 February
	IOP Schools talk, SETU, Carlow	26 February
	IOP Schools talk, Queens Uni. Belfast	27 February
	IOP Schools talk, Foyle College, Derry	28 February
	SUNY Oswego Eclipse Festival	5 April
	TLG Bexhill	14 May
	Oslo	11 August
	ASE [online]	20 December
How old is the universe?	Abriachan Forest Trust, Inverness	9 March
To measure is to know	Porthcurno Telegraph Museum	22 July
	Caledonian Club, London	17 September
	RPS Glasgow, Glasgow University	25 September
A century of testing Einstein's gravity	SUNY Oswego Eclipse Festival	8 April
Fly me to the moon?	Glasgow Café Sci talk	13 May
Did we really land on the moon?"	Portobello HS	21 May
Kelvin's legacy		
<i>6G Workshop and Dinner</i>	Glasgow City Chambers	24 June 2024
Ethics and knowledge in an AI-driven world	Oslo	10 August
Reading between the lines	Festival of Politics, Holyrood	22 August
Gold in the stars	OISF Public Lecture, Kirkwall	5 September
Einstein goes to Hollywood	Wessex Astronomy Society (online)	1 October
The science of Star Wars	Swindon Stargazers	18 October
Did we really land on the moon?	RSE schools talk in Edinburgh	30 October
Gravitational waves	Ratio Science Forum, Sofia, Bulgaria	9 November
Science in the Parliament	Dynamic Earth	26 November
(Schools talks)	Wick and Thurso	4 September
	Orkney	5 September
	Orkney	5 September
(Talk on Kelvin)	Oman Science Festival	5 November
	Oman Science Festival	6 November
(RSE Kelvin events)	Edinburgh	25 October
(Kelvin Public Lecture: chairing)	Charles Wilson Building, Glasgow Univ.	26 June

Trustee and Foundation Treasurer, **Alan Walker**, contributed to the following events:

Clydesdale Astronomical Society: 22 January 2024

Lecture (Zoom): 'Kelvin and the Cables'

An account of the laying of the first transatlantic telegraph cables and the involvement of William Thomson who later became Lord Kelvin.

Orkney International Science Festival: 11 September 2024  
Peter Ware Higgs Memorial Lecture: 'Kelvin & the Cables'

Lecture to the CERN European School of High Energy Physics 2024 (ESHEP): 30 September 2024  
"Travels with Peter" An account of the author's experiences travelling with Peter Higgs before and after seminar announcing the discovery of the Higgs Boson on 4 July 2012.

Particle Physics Exhibits at the CERN@70 Celebration at Dynamic Earth, Edinburgh: 6-7 October 2024  
Family Day & Evening Celebrations of the 70th anniversary of the founding of CERN.

University of Edinburgh School of Physics and Astronomy General Interest Seminar: 10 October  
'Lord Kelvin & the Transatlantic Telegraph Cables'

Institute of Physics Scotland Retired Members Network (Remnet): 14 November 2024  
"From Maxwell to Higgs" (via Zoom).

C T R Wilson Lecture and Cloud Chamber Workshop at Brechin High School: 3 December 2024

C T R Wilson Lecture and Four Cloud Chamber Workshops at James Gillespies High School: 19 December 2024

CREST Award Mentoring of Frederik Pusch 2024

Various aspects of particle physics majoring on CP-Violation. Preparation of a presentation to accompany the 'Tree of Light' exhibit in the James Clerk Maxwell Building of the University of Edinburgh.

Additionally, **Peter Grant**, a valued Fellow of the Foundation gave the following talks:

Maxwell Museum introduction: presentation plus 1½ hour guided tour of 14 India Street

- EuCAP conference for 75 delegates, 22 March 2024.
- International Telecommunication Union conference for 30 delegates, 8 April 2024.
- ICMS workshop on 'The many facets of Kinetic Theory' for 35 delegates, 24 September 2024

James Clerk Maxwell's life and contributions beyond Electromagnetics: presentation plus tour

- IEEE EMC Society meeting 'Maxwell's Equations to Modern Mathematics – Advances in EMC and Antenna Measurement Techniques', 25 March 2024

James Clerk Maxwell: the most significant physicist in the era between Newton and Einstein

- Kirkcaldy Probus talk delivered to 36 members, 19 June 2024

Maxwell's life and scientific contributions which have enabled wireless communication

- Norfolk Amateur Radio Club 40 members plus a further 200 members online, 28 August 2024

## **TOWARDS OUR NEW JOURNAL, *The Maxwellian***

With David Forfar stepping down from the Board of Trustees and from his role as editor of the *Newsletter*, a new Editorial Group was established under the leadership of Chris Pritchard. There is a plan to move to a journal which has material accessible to a wide range of people, including senior school students. *The Maxwellian: The Journal of the James Clerk Maxwell Foundation* is to launch in March 2025 to coincide with the Cambridge Philosophical Society's conference 'The Unknown Maxwell', with the first issue having a focus on the history of radar. It will be published

six-monthly thereafter. We are grateful that the printing of this publication is being undertaken pro bono on our behalf.

## **IT DEVELOPMENTS IN 2024**

Installation of improved WiFi connectivity, including remote communication with the central heating timer.

To provide a more flexible means of accepting donations, the Foundation now has a 'JustGiving' page on the website, and are very grateful to people who have generously donated money to help us further promote Maxwell's life and work.

The further development of the interactive Virtual Tour by James Gentles and Colin Murray to include Glenlair, Parton and other locations in Edinburgh is of significant importance. The tour now includes the use of almost 100,000 high-resolution photographs, many of them digitally adjusted to meet GDPR requirements. The latest phase of the work took 18 months and saw the involvement of over 20 stakeholders. All permissions relating to properties and music were sought and agreed with rights holders. Specialist software drives the 3D imaging and allows for access on all devices and browsers.

The developers have identified the need to future-proof the package to allow for ease of use and software innovation. In due course, this will also allow James Gentles and Colin Murray to step away and have others curate the tour, despite having less expertise. This package will go live at some point during 2026.

## **BOOK DONATIONS**

Copies of three books were donated to the Foundation in 2024:

*James Clerk Maxwell: Faith, Church and Physics*, by Bruce Ritchie (2 copies)

*Vector: A Surprising Story of Space, Time and Mathematical Transformation*, by Robyn Arianrhod

*Sesquicentenario de las Ecuaciones de Maxwell*, by José Ignacio Íñiguez-de-la-Torre



## STATEMENT OF TRUSTEES' RESPONSIBILITIES

Under the Trust Deed, the Trustees are required to obtain independent examination of financial statements for each financial year which properly represents the state of affairs of the Foundation and of the excess of income over expenditure.

The Trustees have assumed responsibility for the preparation of the financial statements for examination.

In preparing those financial statements the Trustees are required to: -

- 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 accounts,
- Prepare financial statements on the going concern basis, unless it is inappropriate to presume that the Foundation will continue its activities.

The Trustees are required to act in accordance with the Trust Deed and within the framework of Trust Law. They are responsible for keeping accounting records which disclose with reasonable accuracy the financial position of the Foundation and to enable them to ensure that the financial statements comply with the Charities and Trustee Investment (Scotland) Act 2005 with the Charities Accounts (Scotland) Regulations 2006 (as amended) ("the 2006 Regulations"). They are also responsible for safeguarding the assets of the Foundation and hence for taking reasonable steps for prevention of fraud and other irregularities.

The foregoing Report and Accounts were examined and approved by the Trustees on 15 January 2026 and signed on their behalf by

A handwritten signature in black ink, reading "David Kerridge". The signature is written in a cursive, flowing style with a large initial 'D'.

Trustee: - David Kerridge, Chair of the James Clerk Maxwell Foundation

## **JAMES CLERK MAXWELL FOUNDATION**

### **Report of the Independent Examiner to the Trustees of James Clerk Maxwell Foundation for the year ended 31<sup>st</sup> December 2024**

I report on the accounts of the James Clerk Maxwell Foundation for the year ended 31<sup>st</sup> December 2024 which are set out on pages 11 to 18.

This report is made to the Trustees, as a body, in accordance with the terms of my engagement. My work has been undertaken to enable me to report my opinion as set out below and for no other purpose. To the fullest extent permitted by law, I do not accept or assume responsibility to anyone other than the charity and the Trustees, as a body, for my work or for this report.

#### **Respective responsibilities of trustees and examiner**

The charity's trustees are responsible for the preparation of the accounts in accordance with the terms of the Charities and Trustee Investment (Scotland) Act 2005 and the Charities Accounts (Scotland) Regulations 2006 (as amended). The charity trustees consider that the audit requirement of Regulation 10(1) (d) of the 2006 Accounts Regulations does not apply. It is my responsibility to examine the accounts as required under section 44(1) (c) of the Act and to state whether particular matters have come to my attention.

#### **Basis of independent examiner's statement**

My examination is carried out in accordance with Regulation 11 of the 2006 Accounts Regulations. An examination includes a review of the accounting records kept by the charity and a comparison of the accounts presented with those records. It also includes consideration of any unusual items or disclosures in the accounts, and seeks explanations from the trustees concerning any such matters. The procedures undertaken do not provide all the evidence that would be required in an audit, and consequently I do not express an audit opinion on the view given by the accounts.

#### **Independent examiner's statement**

In the course of my examination, no matter has come to my attention:

1. which gives me reasonable cause to believe that in any material respect the requirements:
  - to keep accounting records in accordance with Section 44(1) (a) of the 2005 Act and Regulation 4 of the 2006 Accounts Regulations
  - to prepare accounts which accord with the accounting records and comply with Regulation 9 of the 2006 Accounts Regulations

have not been met, or

2. to which, in my opinion, attention should be drawn in order to enable a proper understanding of the accounts to be reached.



Jon Norton FMAAT

Barefoot Accounting Ltd, Regent House, Linlithgow, West Lothian, EH49 7HU

Date: 2<sup>nd</sup> February 2026