



IEEE/RSE James Clerk Maxwell Award 2015

Visit to RSE by Professor Lynn Conway, Professor of Electrical Engineering and Computer Science, Emerita, University of Michigan, Ann Arbor

November 2015

Medallist's Brief

Timings
Approx

Sunday 8 November

- 12.55** **George Hotel Reception**
Dr William Duncan to meet Professor Lynn Conway and husband to escort them to Iris restaurant.
- 13.00** **Informal Lunch**
[Iris Restaurant](#), 47A Thistle St, New Town, Edinburgh EH21DY
- 14.30/45** **Close**

Lunch Guest List:

1. Professor Lynn Conway
 Professor of Electrical Engineering and Computer Science, University Of Michigan
2. Dr William Duncan
 Chief Executive, Royal Society of Edinburgh
3. Professor Tariq Durrani, OBE FREng FRSE
 Vice President (International), Royal Society of Edinburgh
4. Mrs Clare Durrani
5. Dr David Milne, OBE FREng FRSE
 James Clerk Maxwell Foundation
6. Mr Charles Rogers (with Professor Conway)
7. Ms Liz Sharp (with Dr Milne)
8. Professor Sir David Wallace, CBE FRS FREng FRSE
 Deputy President, Royal Society of Edinburgh
9. Lady Elizabeth Wallace

Dress code: Informal

Biographies:

Professor Sir David Wallace, CBE FRS FREng FRSE Deputy President (Physical Sciences and Engineering), Royal Society of Edinburgh



Following undergraduate and postgraduate study in theoretical physics at the University of Edinburgh, he continued research at Princeton University as a Harkness Fellow. In 1972 he was appointed as lecturer in the Physics Department at the University of Southampton. In 1979 he returned to the University of Edinburgh as Tait Professor of Mathematical Physics. He was also Director of Edinburgh Parallel Computing Centre. He was Vice-Chancellor at Loughborough University for 12 years, from 1994. In 2006 he moved to Cambridge, as NM Rothschild & Sons Professor of Mathematical Sciences & Director of the Isaac Newton Institute until 2011, and Master of Churchill College until 2014.

He is a former President of the Institute of Physics and Treasurer and Vice-President of the Royal Society, and has served as a member of the Engineering and Physical Sciences Research Council and the Scottish Higher Education Funding Council, and as an Expert to the European Commission in a number of areas. More recently he served as Chair of the Council for the Mathematical Sciences in the UK, and as a member of the management board of the Royal Commission for the Exhibition of 1851. He is a Governor of Harrow School. His non-executive directorships have included the Scottish Life Assurance Company, Taylor & Francis Group plc and UK e-Universities Worldwide Ltd. He has received honorary doctorates from Heriot Watt, Edinburgh, Leicester, Loughborough, Southampton and East Anglia Universities. He was a Deputy Lieutenant of Leicestershire from 2001 to 2006. He is a fellow of the Royal Academy of Engineering, and an Honorary Fellow of the Institute of Mathematics and its Applications. He was awarded a CBE for services to parallel computing in 1996, and knighted in 2004 for services to UK science, technology and engineering.

In 1995 he ran the London Marathon, raising £8000 for Sports Aid Foundation and Loughborough Sports Scholarships.

Prof Tariq Durrani OBE FRSE FREng Vice President (International), Royal Society of Edinburgh



Tariq Durrani obtained his MSc and PhD from the University of Southampton in 1967 and 1970 respectively. After doctoral and postdoctoral research at Southampton, he joined the University of Strathclyde, Glasgow, as a Lecturer in 1976, and was appointed Professor in Signal Processing in 1982. He was Head of the Department of Electronic and Electrical Engineering from 1986 to 1990, and Deputy Principal for the University from 2000-6. He is currently Research Professor at Strathclyde.

In the past thirty five years, he has worked on and supervised some 60 projects sponsored by the EPSRC, the UK Department of Trade and Industry, UK Ministry of Defence, EEC-ESPRIT, EU BRITE-EURAM, RACE, the US Navy and by several industrial organizations. He has supervised more than 40 PhD students and is the author/co-author of some 350 papers and six books. His research interests are in the area of Signal and Image Processing, Technology and Educational Management.

For the past four years he has been a member of the External Review Committee for the Portugal-Carnegie Mellon Programme.

His Directorships include: the Glasgow Chamber of Commerce (2001 –2013) the Scottish Funding Council (2006-09), the UK Leadership Foundation for Higher Education and UK Equality Challenge Unit (2004-09). He was Vice President of the Royal Society of Edinburgh (2008-10). He is currently Vice President (International) of the Royal Society of Edinburgh; and is a Director for Applied Science & Technology at the UK National Commission for UNESCO.

Tariq Durrani has been a Vice President of the IEEE for Educational Activities, and past President of the IEEE Signal Processing and Engineering Management Societies. IEEE is the world's largest organisation of professional engineers, with over 430,000 members in some 160 countries.

He is a Fellow of the Royal Society of Edinburgh, the Royal Academy of Engineering, the IET and the IEEE. He was awarded the OBE in 2002 for services to electronics and higher education.

**Dr William Duncan BSc, PhD, MCIPD
RSE Chief Executive**



Dr William Duncan has been Chief Executive of the Royal Society of Edinburgh (RSE) since 1985. During this time, the RSE has expanded considerably its activities and public benefit role as Scotland's national academy of sciences and letters, embracing all branches of learning. To support this expansion, the RSE's own premises have been extensively enlarged and refurbished, and he played a key role in this and other developments.

Prior to joining the RSE, he worked in the Treasurer's Department at the Greater London Council, and then at Lothian Regional Council, where he was much involved with the Social Work Department.

He has a BSc and a PhD (in molecular spectroscopy) from the University of Edinburgh, and is a Chartered Member of the Institute of Personnel and Development.

His main leisure interests, apart from visiting science centres, are attending organ recitals and listening to contemporary music.

Dr David Milne, OBE FREng FRSE
James Clerk Maxwell Foundation



David Milne has a Doctorate in Physics from Bristol University. In 1984 David co- founded Wolfson Microelectronics with colleagues from the Wolfson Institute at the University of Edinburgh. Wolfson Microelectronics grew into one of the UK's most successful technology businesses under his leadership.

The Company was instrumental in creating the first generation of compact mobile phones through its development of custom circuits for electronic manufacturers. David then led Wolfson's transformation into a product company from 1995. After ceasing to be CEO in 2007, he became Director of the Company until he left in 2012.

In 2014 Wolfson Microelectronics was acquired by Cirrus Logic. It continues to supply high performance mixed-signal semiconductors to global consumer electronics corporations. Its devices are incorporated into a wide range of products including mobile phones, portable media players, portable navigation devices, digital still cameras, flat panel televisions, gaming consoles, sound systems, all-in-one printers and scanners, automotive infotainment systems and bluetooth headsets.

He was Vice President of the Royal Society of Edinburgh from 1995 to 1998 and is a Fellow of the Royal Academy of Engineering. He was Chairman of the European Leadership Council of the Global Semiconductor Alliance in 2007/2008, and has been a director and chairman of Edinburgh International Science Festival Limited since 2007. From 2008 to 2014 he was Chair of the James Clerk Maxwell Foundation.

**Timings
Approx**

Monday 9 November

- 9.00 Inspiring Brilliance: Celebrating Maxwell's Genius and Legacy**
Please see attached programme for more information
(Wolfson Lecture Theatre)
- 12.30 Lunch**
(Wellcome Rooms)
- 13.00 Press Interview with Dr Magnus Linklater CBE FRSE
Former Editor, The Scotsman**
Tea/Coffee will be available here and you can bring your sandwiches with you from Wellcome Rooms should you wish.
It will be set up for 3 people, should your husband wish to attend also.
Hannah Smith, RSE PR & Marketing Officer will meet you and take you to the interview room.
(General Secretary's Office)
- 14.00 End of Press Interview**
- 16.30 End of Conference**
- 16.45 Coaches outside the George Hotel to transport attendees to University of Edinburgh**
- 17.00 Unveiling of Maxwell Plaque and Drinks Reception**
Old College Quadrangle, South Bridge, University of Edinburgh, EH8 9YL
- 18.00 Close**

**Timings
Approx.**

Tuesday 10 November

- 8.30 The Science of Beauty**
Please see attached programme for more information
(Wellcome Rooms)
- 18.30 Close**

Timings
Approx.

Wednesday 11 November

Am **Visit to James Clerk Maxwell House, 14 India Street, Edinburgh**

Thursday 12 November

- 10.00** **Meet at the Royal Society of Edinburgh reception to take taxis to Cirrus Logic**
1. Professor Lynn Conway
 2. Professor Barry Shoop
IEEE President-Elect
 3. Professor Tariq Durrani
Vice President (International), Royal Society of Edinburgh
 4. Dr William Duncan
Chief Executive, Royal Society of Edinburgh
 5. Mr Gordon Adam
Director of Development and Communications, Royal Society of Edinburgh
 6. Mr Charles Rogers
- 10.30** **Arrival at Cirrus Logic**
- Presentation followed by lunch at Cirrus Logic**
Details to follow
- 13.00** **Return to George Hotel by taxis organised by Cirrus Logic**
- 15.30** **Speaker's arrival** at the RSE for AV Check
(Wolfson Lecture Theatre)
- 17.15-30** **Arrival of Chairman, Citation Reader and VOT**
Professor Sir David Wallace CBE FRS FREng FRSE
Deputy President, RSE
- Professor Barry Shoop
President Elect, IEEE
- Professor Tariq Durrani OBE FREng FRSE
Vice President (International), RSE
- Tea, coffee and biscuits
(Fellows Room)
- To be joined in the fellows room by Charlie Rodgers, husband of Professor Conway.
- 17.30** **Arrival of lecture attendees/Registration**
(Reception)
- 18.00** **2015 IEEE/RSE James Clerk Maxwell Medal Award Ceremony**
Live Streaming & recording will begin
(Wolfson Lecture Theatre)

Citation read by IEEE President Elect

Professor Barry Shoop

Medal presented by RSE Deputy President

Sir David Wallace

Short Acceptance Speech

Professor Lynn Conway

- 18.15** **Talk: Our Travels Through Time: Envisioning historical waves of technological innovation**
Professor Lynn Conway
- 18.50** **Question & Answer Discussion Session**
Chaired by Professor Wallace
- 19.10** **Vote of Thanks**
Professor Tariq Durrani
- 19.15** **Drinks Reception for all Attendees**
(Reception)
- 19.45** **Dinner (for invited guests only)**
(Scott Room)
- 22h00 approx.** **Departure / Close**

Speaker's Points to Note:

IEEE/RSE James Clerk Maxwell Medal:

The **IEEE/RSE James Clerk Maxwell Medal**, established in 2006, is named in honor of the 19th century Scottish mathematician and physicist, James Clerk Maxwell. Maxwell laid the foundations of electromagnetic wave theory, radio propagation, microwave techniques, and radio communications. Maxwell was a Fellow of the RSE. Wolfson Microelectronics sponsored the Maxwell Medal from 2007 to 2014. It is now sponsored by Cirrus Logic. We hope that they will continue to sponsor it, but this is still under negotiation.

Prior medallists include:

- **Dr Irvin M Jacobs and Dr Andrew J Viterbi**, co-founders of Qualcomm Incorporated, were jointly awarded the first of these awards in 2007. They received the award for fundamental contributions, innovation and leadership that enabled the growth of wireless communications. Dr Jacobs received his award at the IEEE Annual Honors Ceremony held in Pennsylvania, USA in June 2007. Dr Viterbi was presented with his medal by HRH The Duke of Edinburgh in July 2007 at the RSE Fellows' Summer Soirée.
 - **Sir Timothy Berners-Lee**, Director, World Wide Web Consortium, was presented with his award in September 2008 at the IEEE Honors Ceremony in Quebec City for conceiving and further developing the World Wide Web.
 - **Professor Alberto Sangiovanni-Vincentelli FIEEE**, Edgar L. and Harold H. Buttner Professor of Electrical Engineering, University of California, Berkeley, was presented with his award by HRH The Duke of Edinburgh at the RSE in August 2009 for groundbreaking contributions that have had an exceptional impact on the development of electronics and the field of electrical engineering.
 - **Amar G Bose**, Chairman, Bose Corporation, Framingham, MA, USA, received the 2010 award for his outstanding contributions to consumer electronics in sound reproduction, industrial leadership and engineering education.
 - **Dr Marcian 'Ted' Hoff**, Chief Technologist (Retired), Teklicon, Inc.; Los Altos Hills, CA, USA, received the 2011 award for his work in developing the microprocessor which changed the future of computing forever.
 - **Dr Gerhard Sessler**, Professor for Electroacoustics, Darmstadt University of Technology, received the 2012 award for helping to revolutionise the modern microphone market, not once but twice during his career.
 - **Professors Richard Muller and Richard White**, both of the University of California, jointly received the 2013 award both for pioneering innovation and leadership in micro-electro-mechanical systems (MEMS) technology.
 - **Professor Sir David Payne CBE FRS FREng**, Director of Optoelectronics Research Centre, University of Southampton received the 2014 award for ground-breaking contributions to optical fibre technologies and their application to optical communications.
1. Brian Scott, RSE AV Technician, and Oonagh Carroll, Events Officer, will be available to help set up your presentation and do a short AV check on arrival earlier in the day.
 2. Pre-Lecture tea, coffee and biscuits will be provided for the Speaker, the Chair and the VOT in the Fellows Room.
 3. We are expecting a full audience in the lecture theatre.
 4. Please be advised that your lecture will be audio recorded for dissemination purposes. It will also be live streamed and filmed, the film will be used on the RSE website afterwards, with your consent.
 5. Once everyone has arrived for the lecture and is seated in the Wolfson Lecture Theatre (at approx. 17h55), Oonagh Carroll will ask you to make your way to the Wolfson Lecture Theatre.

The front row of seats in the lecture theatre will be reserved for the Speaker, Chair, VOT and other dinner guests (see list below).

6. The RSE Welcome. Professor David Wallace will:
 - a. Welcome everyone to the RSE and say a few words about the RSE
 - b. Thank Cirrus Logic for supporting the event.
 - c. Introduce Barry Shoop and hand over to him to read the citation for Professor Lynn Conway.
 - d. Present Professor Conway with the medal.
 - e. Question & Answer Session (20 minutes) – Professor David Wallace will Chair the question and answer session:
 - f. A table with two fixed table-top microphones will be provided on the stage for Professor Wallace and Professor Conway to use during the question/answer session.
7. Vote of Thanks – Professor Wallace to invite Professor Tariq Durrani to offer a Vote of Thanks to the speaker.
8. At the end of the lecture Professor Wallace will close proceedings and invite all attendees to a drinks reception.
9. Oonagh Carroll will lead the way to dinner in the Scott Room at 19.45 (details below)

About the Dinner:

1. Professor David Wallace (dinner host).
2. Dress code for dinner: lounge suit/business dress.
3. At 19.45 Oonagh Carroll will escort the dinner guests to the Scott Room.
4. Dinner is scheduled to end at approximately 22.00 but this is simply for guidance. We appreciate some people may leave early for trains etc.

Dinner Guest List:

1. Mr Gordon Adam
Director of Business Development and Communications, Royal Society of Edinburgh
2. Professor Alan Alexander, OBE, FRSE, FAcSS
General Secretary, Royal Society of Edinburgh
3. Professor Martin Bastiaans
MGA Vice Chair, Geographic Unit Operations, IEEE
4. Dr Irene Buchanan
5. Ms Christine Burns, MBE
6. Professor Lynn Conway
Professor of Electrical Engineering and Computer Science, University Of Michigan
7. Dr William Duncan
Chief Executive, Royal Society of Edinburgh
8. Professor Tariq Durrani, OBE FREng FRSE
Vice President (International), Royal Society of Edinburgh
9. Mrs Clare Durrani
10. Professor Peter Grant, OBE FREng FRSE
Regius Emeritus Professor of Engineering, University of Edinburgh
11. Dr John Gray
12. Dr David Milne, OBE FREng FRSE
James Clerk Maxwell Foundation
13. Mr Charles Rogers (with Professor Conway)
14. Ms Liz Sharpe (with Dr Milne)
15. Professor Barry Shoop
2016 President, IEEE
16. Professor Andrew Walker, FRSE
Chief Executive, Carnegie Trust for the Universities of Scotland
17. Professor Sir David Wallace, CBE FRS FREng FRSE
Deputy President, The Royal Society of Edinburgh
18. Lady Elizabeth Wallace
19. Cirrus Logic Representative (tbc)
20. Cirrus Logic Representative (tbc)

About your accommodation:

Arrival date: 7 November 2015

Departure date: 13 November 2015

Confirmation no: 60069166

RSE will provide: Bed and breakfast

All other costs: To be settled by guests on departure

Hotel: The George Hotel

Address: 19-21 George Street, Edinburgh, EH2 2PB
t. 0131 225 1251 f. 0131 226 5644
<http://www.thegeorgehoteledinburgh.co.uk/>

Location: <http://www.thegeorgehoteledinburgh.co.uk/location/>: directly opposite the RSE

Check in time: Your room will be available from 15h00 on day of arrival

Check out time: 12h00 on day of departure

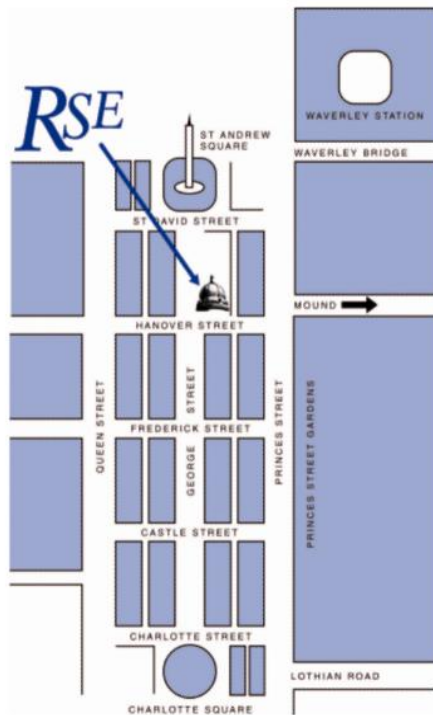
Hotel Fact Sheet: <http://www.principal-hayley.com/george-hotel/wp-content/uploads/sites/25/2013/06/TheGeorgeHotelFactSheet.pdf>

RSE DIRECTIONS AND MAP



The Royal Society of Edinburgh
22-26 George Street
Edinburgh
EH2 2PQ

Tel : 0131 240 5000
Fax : 0131 240 5024



CAR PARKING

If you are arriving by car please note that parking near The Royal Society is limited to meter parking only (until 6.30pm) which can prove costly. The nearest car parks are at the St James Centre, approached from either Queen Street or Leith Street and Greenside Place car park on Leith Street. Both are a 10-minute walk from the RSE.

BY ROAD

Main roads into Edinburgh are the M8 from the West, the A1 from the South and the A90, followed by Queensferry Road from the East.

BY RAIL

Waverley Station is a five minute walk from the Royal Society with frequent local and national services. For Further information on train services please contact National Rail Enquiries on 0845 7484950

BY AIR

Edinburgh airport is approximately 12 kilometres from the city centre and is well served by frequent bus services and airport taxis. Car hire is available at the airport . The airport is about a 20-30 minute car drive from the city centre.

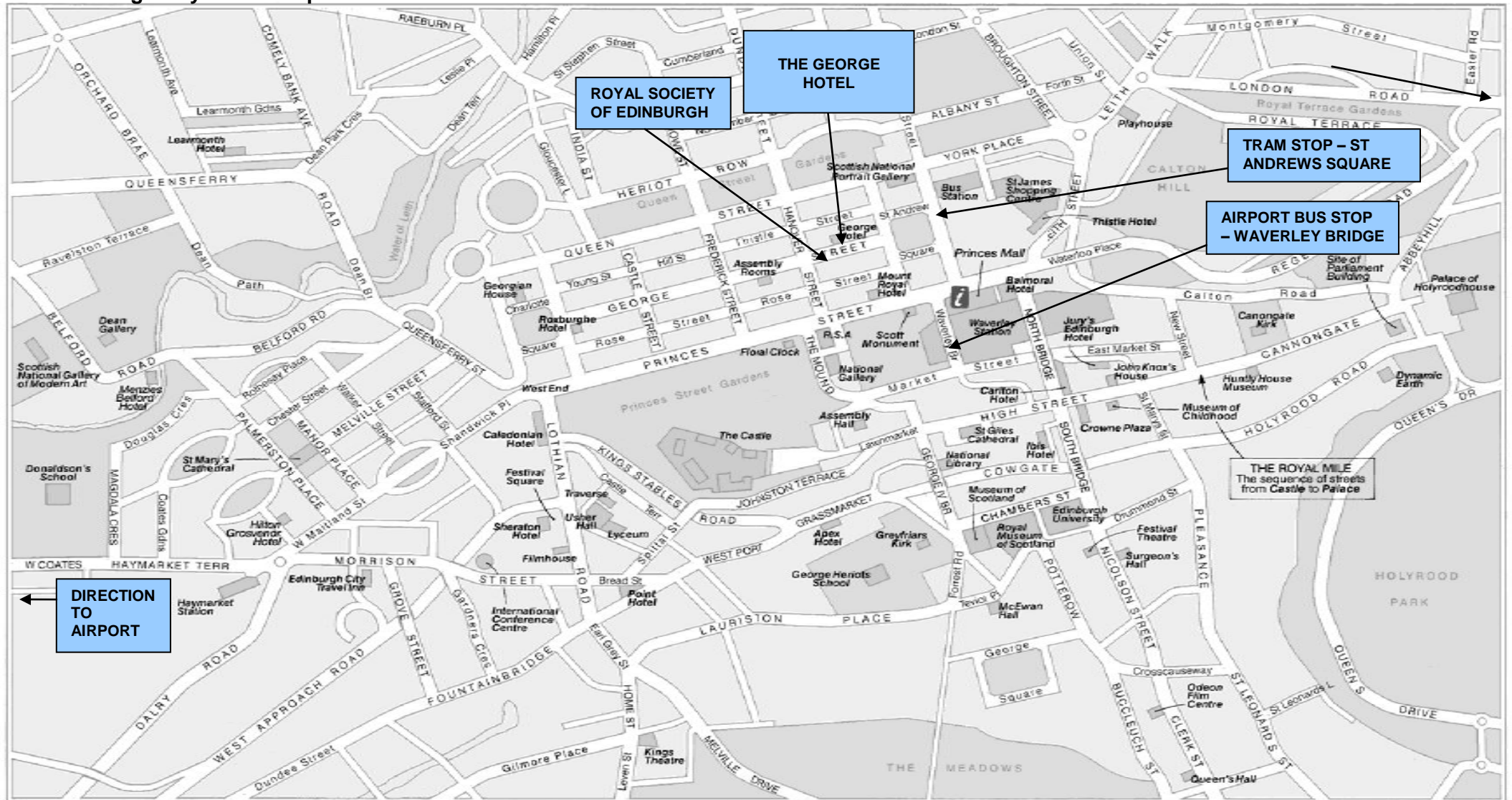
BY BUS

Edinburgh's bus station is situated on North St. Andrew Street, off St. Andrews Square, which is a 5 minute walk to the RSE.

BY BICYCLE

Main roads into Edinburgh are the M8 from the West and the A1 from the South. Cycle paths exist within Edinburgh. If you wish to come by bicycle please advise so that bike storage facilities can be arranged.

Edinburgh City centre map



The Royal Society of Edinburgh, Scotland's National Academy, is Scottish Charity No. SC000470

ADDITIONAL VISITOR INFORMATION

- **About the Royal Society of Edinburgh (RSE)**

We are an educational charity, registered in Scotland, operating on a wholly independent and non-party-political basis and providing public benefit throughout Scotland. We were established in 1783 and since then have drawn upon the considerable strengths and varied expertise of our Fellows, of which there are currently more than 1500, who are based in Scotland, the rest of the UK and beyond.

Unlike most other UK National Academies, our Fellowship covers the full range of disciplines – science & technology, arts, humanities, social science, and also includes business and public service.

Our current strategic aspirations, objectives and the impact we aim to make, are set out in our Strategic Framework:

<http://www.rse.org.uk/cms/files/aboutus/framework.pdf> and on the RSE web site:

- **Tourist information**

If you have time to see some of the wonderful sights and visitor attractions during your visit to Edinburgh, a great introduction to Scotland's Capital City is by open top – hop on, hop off - bus tour. These buses depart frequently from Waverley Bridge:

<http://www.edinburghtour.com/>

<http://www.city-sightseeing.com/tours/united-kingdom/edinburgh.htm#tourlandingposition>

For more general information on Edinburgh and its visitor attractions:

<http://www.edinburgh.org/>

<http://www.visitscotland.com/destinations-maps/edinburgh-lothians/see-do/>

If you have any questions or require further information about the above programme, please do not hesitate to contact me.

Oonagh Carroll

Events Officer

ocarroll@royalsoced.org.uk

Telephone: 0131 240 5028