

# CURRICULUM VITAE

CAROLINE MARY SERIES

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RESEARCH AREA    Hyperbolic three-manifolds, Kleinian groups; dynamical systems.

BIRTH AND NATIONALITY    24 March 1951, Oxford, England; British.

HONOURS    Fellow of the Institute of Mathematics and Applications (2011); Inaugural Fellow of the American Mathematical Society (2012); FRS (2016); Member Academia Europaea (2017); Honorary Fellow, Somerville College, Oxford (2017); Honorary Doctorate, Duke University, USA (2019); LMS-IMA Crighton Medal (2021); Honorary DSc, University of St Andrews (2021).

## POSITIONS HELD

**1999 – 2004** EPSRC Senior Research Fellow

**1978** – Lecturer, Reader (1987), Professor (1992 – 2014), Emeritus Professor (2015 – ). Mathematics Department, Warwick

**1977 – 78** Research Fellow, Newnham College; SRC Research Fellow, Cambridge

**1976 – 77** Lecturer, University of California, Berkeley

## EDUCATION

**1972 – 76** Harvard University, USA. A.M., Ph. D. Mathematics. Thesis: *Ergodic Actions of Product Groups*. Advisor G. W. Mackey, FAAAS

**1969 – 72** Somerville College, Oxford. B.A. Mathematics First Class

PRIZES AND SCHOLARSHIPS    Senior Anne Bennett Prize, London Mathematical Society (2014); Junior Whitehead Prize, London Mathematical Society (1987); Kennedy Scholarship, Harvard University (1972 – 74); University Mathematical Prize, Oxford (1972); Mary Ewart Scholarship, Senior Scholar, Somerville College (1969); GPDST Sixth Form Scholarship (1967 – 68).

DISTINGUISHED LECTURES    International Congress of Mathematics, Berkeley (1986); Royal Society Meeting ‘Dynamical Chaos’, London (1987); Rouse Ball Lecture, Cambridge (1992); Newton Institute Seminar (1995); Inaugural Mary Cartwright Lecture (2000); LMS Forder Lecturer, New Zealand (2003); Larmor Lecture, Queen’s University Belfast (2011); Royal Institution Discourse (2014); Higgs Lecture, King’s College London (2015); Pascal Fellow, Durham (2016); Hamilton Lecture, Dublin (2021).

SELECTED LECTURES    British Mathematical Colloquium (1981, 1992, 2003); Edinburgh Mathematical Society (1985); London Mathematical Society (1986); Dame Mary Cartwright’s 90th Birthday (1991); University of Wales Pure Maths Colloquium (1992); Kleinian groups, Osaka, Japan (6 lectures) (1998); Ahlfors – Bers Colloquium, Storrs, USA (2001); Geometry and Topology of 3-manifolds, ICTP Trieste (short course) (2005); XXth Rolf Nevanlinna Colloquium, Lausanne (2005); Annual Conference, Heilbronn Institute (2007); Wales Institute of Mathematical and Computational Sciences, Gregynog (2011); Canadian Maths Soc. Plenary, Montreal (2015); Bowen Legacy Conference, Vancouver (2017).

RECENT CONFERENCE LECTURES 3-dimensional Geometry and Topology, Oxford (2004); Second William Rowan Hamilton Geometry and Topology Workshop, Dublin (2006); Toulouse Hyperbolic Geometry Workshop (2007); MSRI Teichmüller theory and Kleinian groups (2007); North British Geometric Group Theory, York (2010); Geometry, topology & dynamics of character varieties, Singapore (2010); Conformal dynamics and hyperbolic geometry, CUNY (2010); EWM 15th general meeting, Barcelona (2011); Hyperbolic and Riemannian geometry of surfaces, Ascona (2011); S. England Groups Meeting, Oxford (2012); S. Kerckhoff's 60th birthday, Luminy (2013); LMS Women in Maths 150th Anniversary, Oxford (2015); Geometry of Discrete Actions, ICTP Trieste (2015); Warwick Symposium on Geometry, Topology and Dynamics (2018).

RECENT SEMINARS AND COLLOQUIA Rutgers (2000); St Andrews, Exeter (2001); Newcastle, Leeds, Göteborg (2002); Melbourne, Singapore (2003); Oxford, York (2005); Kent, Sheffield (2006); BWM Day (2007, 2015); Leicester (2008); U. Maryland, Birmingham (2010); QMUL, Manchester (2011); Ergodic Theory Day, Warwick (2011); Loughborough (2012); Southampton (2013); Lancaster, Liverpool (2014); Imperial (2015); Leicester, Sheffield, Open University (2016). Cardiff, Maynooth, Oxford (2017); LMS Groups and Geometry Day (Birkbeck, 2017); Imperial (2018); IISER Mohali, India (online, 2021).

LARGE PUBLIC LECTURES AND MEDIA British Association Advancement Science (1988); Open University M500 Celebrity Speaker (1989); London Mathematical Society Popular Lecture (1999); Maths Association Conference After Dinner Speaker (2003); BMC Public lecture (2007); Imperial College Athena Lecturer (2009); LMS/IMA Gresham Lecture (2010); Radio 4 *In our Time* (2010); LMS Film *Thinking Space* (2015); LMS Summer School, Loughborough (2015); Charlotte Scott Lecture, Lincoln (2018); Ng Kong Beng Public Lecture Series Singapore (online, 2021).

#### SELECTED PROFESSIONAL ACTIVITIES

**London Maths Society** Council Member at Large 1989 – 91; International Mathematical Union Representative, Dresden 1998; BMC Committee Representative 2003 – 06; Nominations Committee 1999 – 2001, 2007 – 09, Chair 2009 – 12; Crighton medal panel 2012. **President** 2017 – 19. Development Committee 2017 – ; Atiyah Fellowship Committee Chair 2019 – 21.

**European Maths Society** EMS Prize Committee 1999 – 2000; European Congress Scientific Committee 2002 – 04; Scientific Advisory Panel 2003 – 06.

**International Mathematical Union** 2018 Chern Prize Committee Chair; Committee for Women in Mathematics Vice Chair 2015 – 18; Web redesign advisory group 2016 – 17; Nominating Committee 2021.

**Royal Society** Wolfson Fellowship Panel 2022 – 24.

**European Research Council 2016** Consolidator grants panel member.

**REF 2014** Mathematics panel member. **RAE 2008** Pure Mathematics subpanel member.

**Isaac Newton Institute** Scientific Steering Committee 2004 – 08. (First) Chair of Correspondents 2009 – 12; Management Committee 2009 – 12.

**EPSRC** Maths College 1998 – 2010; Advanced Fellowship Panel 2000, 2004; PhD grant allocation panel 2003; Senior Fellowship Panel 2004; Advisory Pure Maths Workshop 2012.

**Editorships** London Maths Society Student Texts Chief Editor 1990 – 2002; J. of Conformal Geometry and Dynamics 2006 – 2013; Mathematics Research Letters 1993 — 2014.

**British Science Association** President and Presidential Lecture, Mathematics Section 2011.

**External Examiner** Cambridge Part 2, 1996 – 97; Part 3, 1999. PhD: Jyväskylä, 1995; QMW 2002; Southampton 2003, 2005; ENS Lyon, Singapore, Cambridge 2004; Orsay 2006.

**Promotions Panels** Norwegian National Promotions Committee 2012 – 13; York 2012; Oxford, Lancaster, Iraklion 2013. **Advisory and Review Panels** Oxford Maths Institute 2002 – 11; ICMS Edinburgh Programme Committee 2004 – 05; Imperial College Institute of Mathematical Sciences 2004 – 09; Bristol Review 2015; Lancaster Review 2016.

**Association of Commonwealth Universities** Scholarship Commission Adviser 2007 – 13.

#### LARGE CONFERENCES ORGANISED

**2021** Lead organiser *The Unity of Mathematics: A conference in honour of Sir Micheal Atiyah*. Isaac Newton Institute, Cambridge.

**2013** Organising committee *ICERM semester: Computation, experiment and algorithms in topology and geometry*. Brown University USA.

**2010** Cochair *Geometry, topology and dynamics on character varieties*. IMS, NUS Singapore.

**2006/7** Principal organiser, *Warwick Symposium on Low Dimensional Geometry and Topology*.

**2003** Proposer and principal organiser, *Spaces of Kleinian Groups and Hyperbolic 3-Manifolds*. Isaac Newton Institute, July – August 2003.

**2001** *Kleinian Groups and Hyperbolic 3-Manifolds*. Warwick.

**2002** Organising committee, First joint BMC/BAMC, Warwick.

**1997** (with I. Rivin and C.P. Rourke) *Hyperbolic Geometry and Geometric Group Theory*.

**1992 – 93** (with D.B.A. Epstein) *Analytic and Geometric Aspects of Hyperbolic Space*. Warwick and Durham Symposia.

**1989** *Ergodic Theory and Hyperbolic Geometry*. International Centre for Theor. Phys., Trieste.

RECENT RESEARCH VISITS Osaka City University (1998); IMS, Stony Brook (2000); Brown, USA (1999, 2000, 2001); Toulouse (2006, 2007; Professeur invitée 2008); MSRI Berkeley (2007); Emmy-Noether-Gastprofessur, Göttingen (2009); Blaise Pascal Fellow, Durham (2016).

PH.D. STUDENTS Ralph Spatzier, 1978 – 83 (Professor, Michigan); Tim Bedford, 1981 – 84 (Professor, Strathclyde); Maria Losada, 1983 – 89; Jack Button, 1991 – 94 (Director of Studies, Selwyn College, Cambridge); Andre Rocha, 1991 – 94; George Skelton, 1997 – 2001; Raquel Agueda (Madrid), 1997 – 2006 ; Irene Scorza, 2000 – 04 (Postdoc, University of Genova); Dan Goodman, 2002 – 06 (Lecturer, neuroscience, Imperial); Sara Maloni, 2008 – 12 (Assistant Professor, U. of Virginia); Khadija Farooq, 2009 – 2013; Damiano Lupi, 2011 – 2016.

POSTDOCTORAL COLLABORATORS Raquel Díaz, Marie Curie Fellow, 1999 – 2001 (Lecturer, Madrid); Young-Eun Choi, Warwick Zeeman Fellow, 2000 – 04; Cyril Lecuire, European Postdoctoral Institute Fellow, 2003 – 06 (Chargé de recherche, Toulouse); Javier Aramayona, 2004 – 07 (Científico Titular, ICMat, Madrid).

60TH BIRTHDAY CONFERENCE (Organisers J. Aramayona, B. Bowditch, S. Schleimer)  
Workshop: Aspects of hyperbolicity in geometry, topology and dynamics, Warwick 2011.

PUBLIC UNDERSTANDING OF SCIENCE I have given many public lectures on mathematics to schools, undergraduates and the general public. Recent highlights include: London Mathematical Society Popular Lecturer (1999); Maths Association Conference After Dinner Speaker (2003); LMS New Zealand Forder lectureship (2003); public lecture at the BMC Swansea (2007); LMS/IMA Gresham Lecture (2010). I featured in the BBC documentary *The True Geometry of Nature* (1995) and have several times been on Radio 4 (1990, 1992, 2007). I was interviewed by *Mathematics Today* (February 2007), *Bhāvāna* (2021) and am on the e-board of the school level online +plus magazine (2008 –).

*Indra's Pearls* (Publications list [\*A3]) is an innovative illustrated book introducing a wide audience to the flavour of research mathematics, with intriguing computer graphics. The book is being used widely as a source for student projects and teaching enrichment and has received many favourable reviews. I have written various other general articles including one in *The New Scientist Guide to Chaos*, Penguin 1992, of which an extract was selected for *The Faber Book of Science*, Ed. John Carey, 1995.

WOMEN IN MATHEMATICS Founder member of *European Women in Mathematics* (1986). Main organiser, 3rd EWM General Conference Warwick (1988). Initiator of British Women Mathematician's Day (1995). Chair, EMS Women in Maths Committee (2012 – 2015). Vice chair and web manager, IMU Committee for Women in Maths (2015 – 2018).

August 20, 2021