

Europass Curriculum Vitae

Personal information

Surname / First name

Address

Telephone

Email

Salamon, Simon

Department of Mathematics, King's College London, Strand, London

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simon.salamon@kcl.ac.uk

Employment

Dates

Employer

Current post

2011–

King's College London

Professor in Geometry

Head of Department

Dates

Employer

Post

2000–11

Politecnico di Torino

Professor of Geometry

Dates

Employer

Post

2003–04

Imperial College London

Reader in Mathematics

Dates

Employers

Posts

1984–00

University of Oxford

Trinity College, Oxford

Lecturer and Reader in Mathematics

Tutor in Pure Mathematics, Emeritus Fellow

Early career

Dates

Institution

Dates

Institution

Dates

Institution

Post

1983–84

Institute for Advanced Study, Princeton

1981–83

Scuola Normale Superiore, Pisa

1979–81

University of Maryland

Visiting Assistant Professor

Education

Date 1980
Degree D Phil, Wolfson College, University of Oxford

Dates 1976
Degrees BA, Hertford College, University of Oxford

Publications

MathSciNet list

71 author-related publications, as of 20/06/2017
Cited 1508 times by 727 authors
MSN h-index $20+\epsilon$

MR3415702 Hughston, Lane P.; Salamon, Simon M. Surveying points in the complex projective plane. *Adv. Math.* 286 (2016), 1017–1052.

MR3327056 Gambioli, A.; Nagatomo, Y.; Salamon, S. Special geometries associated to quaternion-Kähler 8-manifolds. *J. Geom. Phys.* 91 (2015), 146–162.

MR3283400 Gentili, Graziano; Salamon, Simon; Stoppato, Caterina. Twistor transforms of quaternionic functions and orthogonal complex structures. *J. Eur. Math. Soc. (JEMS)* 16 (2014), no. 11, 2323–2353.

MR3226989 Armstrong, John; Salamon, Simon. Twistor topology of the Fermat cubic. *SIGMA Symmetry Integrability Geom. Methods Appl.* 10 (2014), Paper 061, 12 pp.

MR3132080 Madsen, Thomas Bruun; Salamon, Simon. Half-flat structures on $S^3 \times S^3$. *Ann. Global Anal. Geom.* 44 (2013), no. 4, 369–390.

MR3066792 Abbena, Elsa; Garbiero, Sergio; Salamon, Simon. Bach-flat Lie groups in dimension 4. *C. R. Math. Acad. Sci. Paris* 351 (2013), no. 7-8, 303–306.

MR3003274 Fino, A.; Li, Y. Y.; Salamon, S.; Vezzoni, L. The Calabi-Yau equation on 4-manifolds over 2-tori. *Trans. Amer. Math. Soc.* 365 (2013), no. 3, 1551–1575.

MR3305551 Mumford, D.; Chiossi, S.; Salamon, S. How does a mathematician think about space and shape? *Rend. Semin. Mat. Univ. Politec. Torino* 70 (2012), no. 4, 323–345.

MR3220165 Salamon, Simon. Dynamic surfaces. *Mathematics and modern art*, 131–151, Springer Proc. Math., 18, Springer, Heidelberg, 2012.

MR2746390 (2011m:53076) Borisov, Lev; Salamon, Simon; Viaclovsky, Jeff. Twistor geometry and warped product orthogonal complex structures. *Duke Math. J.* 156 (2011), 125–166.

MR2605793 (2011c:53002) The many facets of geometry. A tribute to Nigel Hitchin. Edited by Oscar García-Prada, Jean Pierre Bourguignon and Simon Salamon. Oxford University Press, Oxford, 2010. xviii+434 pp.

MR2640588 (2011c:53049) Mihaylov, Georgi; Salamon, Simon. Intrinsic torsion varieties. *Note Mat.* 28 (2009), [2008 on verso], suppl. 1, 349–376.

MR2493651 (2010e:53121) Salamon, Simon. Complex structures and conformal geometry. *Boll. Unione Mat. Ital.* (9) 2 (2009), no. 1, 199–224.

MR2471604 (2010b:53132) Salamon, Simon; Viaclovsky, Jeff. Orthogonal complex structures on domains in R^4 . *Math. Ann.* 343 (2009), no. 4, 853–899.

MR2327032 (2008h:53077) Conti, Diego; Salamon, Simon. Generalized Killing spinors in dimension 5. *Trans. Amer. Math. Soc.* 359 (2007), no. 11, 5319–5343.

- MR2264396 (2007m:53054) Conti, Diego; Salamon, Simon. Reduced holonomy, hypersurfaces and extensions. *Int. J. Geom. Methods Mod. Phys.* 3 (2006), no. 5-6, 899–912.
- MR2253203 (2007d:53001) Gray, Alfred; Abbena, Elsa; Salamon, Simon. *Modern differential geometry of curves and surfaces with Mathematica*. 3rd edition. *Studies in Advanced Math.* Chapman & Hall/CRC, Boca Raton, FL, 2006. xxiv+984 pp.
- MR2197377 (2007b:32020) Maclaughlin, C.; Pedersen, H.; Poon, Y. S.; Salamon, S. Deformation of 2-step nilmanifolds with abelian complex structures. *J. London Math. Soc.* (2) 73 (2006), no. 1, 173–193.
- MR2130906 (2006c:17029) Andrada, Adrián; Salamon, Simon. Complex product structures on Lie algebras. *Forum Math.* 17 (2005), no. 2, 261–295.
- MR2131362 (2005k:53070) Salamon, Simon M. Explicit metrics with holonomy G_2 . *UK-Japan Winter School 2004—Geometry and Analysis Towards Quantum Theory*, 50–58, *Sem. Math. Sci.*, 30, Keio Univ., Yokohama, 2004.
- MR2059435 (2005f:53061) Fino, Anna; Parton, Maurizio; Salamon, Simon. Families of strong KT structures in six dimensions. *Comment. Math. Helv.* 79 (2004), no. 2, 317–340.
- MR2055676 (2005g:22008) Ketsetzis, Georgios; Salamon, Simon. Complex structures on the Iwasawa manifold. *Adv. Geom.* 4 (2004), no. 2, 165–179.
- MR2044890 (2005e:53070) Apostolov, Vestislav; Salamon, Simon. Kähler reduction of metrics with holonomy G_2 . *Comm. Math. Phys.* 246 (2004), no. 1, 43–61.
- MR2120916 (2006b:53061) Salamon, Simon. A tour of exceptional geometry. *Milan J. Math.* 71 (2003), 59–94.
- MR1967751 (2004f:53091) Salamon, Simon M. Hermitian geometry. *Invitations to geometry and topology*, 233–291, *Oxf. Grad. Texts Math.*, 7, Oxford Univ. Press, Oxford, 2002.
- MR1967744 (2003j:00020) *Invitations to geometry and topology. Dedicated to Brian Steer to mark his 60th birthday.* Edited by Martin R. Bridson and Simon M. Salamon. *Oxf. Grad. Texts Mathematics*, 7. Oxford University Press, 2002. x+327 pp.
- MR1955629 (2004k:53068) De Smedt, Vivian; Salamon, Simon. Anti-self-dual metrics on Lie groups. *Differential geometry and integrable systems (Tokyo, 2000)*, 63–75, *Contemp. Math.*, 308, Amer. Math. Soc., Providence, RI, 2002.
- MR1922042 (2003g:53030) Chiossi, Simon; Salamon, Simon. The intrinsic torsion of $SU(3)$ and G_2 structures. *Differential geometry, Valencia, 2001*, 115–133, *World Sci. Publ.*, River Edge, NJ, 2002.
- MR1882028 (2003b:53028) Abbena, Elsa; Garbiero, Sergio; Salamon, Simon. Almost Hermitian geometry on six dimensional nilmanifolds. *Ann. Scuola Norm. Sup. Pisa Cl. Sci.* (4) 30 (2001), no. 1, 147–170.
- MR1871007 (2002j:53049) Salamon, Simon. Almost parallel structures. *Global differential geometry: the mathematical legacy of Alfred Gray (Bilbao, 2000)*, 162–181, *Contemp. Math.*, 288, Amer. Math. Soc., Providence, RI, 2001.
- MR1812058 (2002g:53089) Salamon, S. M. Complex structures on nilpotent Lie algebras. *J. Pure Appl. Algebra* 157 (2001), no. 2-3, 311–333.
- MR1783690 (2001j:14048) Herrera, R. Intersection numbers on moduli spaces and symmetries of a Verlinde formula. II. *J. Geom. Phys.* 36 (2000), no. 1-2, 163–177.
- MR1798608 (2001m:53078) Salamon, S. M. Quaternion-Kähler geometry. *Surveys in differential geometry: essays on Einstein manifolds*, 83–121, *Surv. Differ. Geom.*, VI, Int. Press, Boston, MA, 1999.
- MR1707644 (2000e:53032) Reyes Carrión, Ramón; Salamon, Simon. A survey of nearly Kähler manifolds. (Spanish) *Gac. R. Soc. Mat. Esp.* 2 (1999), no. 1, 40–49.

- MR1620884 (2000j:14023) Herrera, R.; Salamon, S. Moduli and twistor spaces. *Rend. Mat. Appl.* (7) 17 (1997), no. 4, 697–712 (1998).
- MR1473310 (98k:14012) Herrera, R.; Salamon, S. Intersection numbers on moduli spaces and symmetries of a Verlinde formula. *Comm. Math. Phys.* 188 (1997), no. 3, 521–534.
- MR1456263 (98e:53121) Abbena, E.; Garbiero, S.; Salamon, S. Hermitian geometry on the Iwasawa manifold. *Boll. Un. Mat. Ital. B* (7) 11 (1997), no. 2, suppl., 231–249.
- MR1423174 (98a:53071) Fino, A.; Salamon, S. Observations on the topology of symmetric spaces. *Geometry and physics (Aarhus, 1995)*, 275–286, *Lecture Notes in Pure and Appl. Math.*, 184, Dekker, New York, 1997.
- MR1413621 (98e:53075) Galicki, Krzysztof; Salamon, Simon. Betti numbers of 3-Sasakian manifolds. *Geom. Dedicata* 63 (1996), no. 1, 45–68.
- MR1410078 (97j:32024) Salamon, S. M. Cohomology of Kähler manifolds with $c_1=0$. *Manifolds and geometry (Pisa, 1993)*, 294–310, *Sympos. Math.*, XXXVI, Cambridge Univ. Press, Cambridge, 1996.
- MR1406329 (97f:53115) Salamon, S. M. Orthogonal complex structures. *Differential geometry and applications (Brno, 1995)*, 103–117, Masaryk Univ., Brno, 1996.
- MR1367278 (97f:32042) Salamon, S. M. On the cohomology of Kähler and hyper-Kähler manifolds. *Topology* 35 (1996), no. 1, 137–155.
- MR1342111 (96m:14015) Salamon, Simon M. The twistor transform of a Verlinde formula. *Differential geometry, complex analysis (Italian) (Parma, 1994)*. *Riv. Mat. Univ. Parma* (5) 3 (1994), no. 1, 143–157 (1995).
- MR1299398 (95i:53047) Falcitelli, M.; Farinola, A.; Salamon, S. Almost-Hermitian geometry. *Differential Geom. Appl.* 4 (1994), no. 3, 259–282.
- MR1288469 (95k:53059) LeBrun, Claude; Salamon, Simon. Strong rigidity of positive quaternion-Kähler manifolds. *Invent. Math.* 118 (1994), no. 1, 109–132.
- MR1255556 (95a:58120) Salamon, S. M. Index theory and quaternionic Kähler manifolds. *Differential geometry and its applications (Opava, 1992)*, 387–404, *Math. Publ.*, 1, Silesian Univ. Opava, Opava, 1993.
- MR1261451 (95i:53054) Salamon, S. M. Spinors and cohomology. *Differential geometry (Turin, 1992)*. *Rend. Sem. Mat. Univ. Politec. Torino* 50 (1992), no. 4, 393–410 (1993).
- MR1219803 (94k:53064) Salamon, Simon. Special structures on four-manifolds. *Conference on Differential Geometry and Topology (Italian) (Parma, 1991)*. *Riv. Mat. Univ. Parma* (4) 17* (1991), 109–123 (1993).
- MR1094461 (92b:53071) Poon, Y. S.; Salamon, S. M. Quaternionic Kähler 8-manifolds with positive scalar curvature. *J. Differential Geom.* 33 (1991), no. 2, 363–378.
- MR1089887 (92e:53067) Salamon, S. M. Curvature and holonomy. *Proceedings of the Workshop on Curvature Geometry (Lancaster, 1989)*, 77–94, *ULDM Publ.*, Lancaster, 1989.
- MR1055861 (90m:55001) *Advances in homotopy theory. Proceedings of the Conf. on Homotopy Theory in honour of the 60th birthday of I. M. James held in Cortona, 1988. Edited by S. M. Salamon, B. Steer and W. A. Sutherland. London Math. Soc. Lecture Note Series*, 139. Cambridge University Press, 1989. xiv+177 pp.
- MR1016448 (90i:53055) Bryant, Robert L.; Salamon, Simon M. On the construction of some complete metrics with exceptional holonomy. *Duke Math. J.* 58 (1989), no. 3, 829–850.

- MR1004008 (90g:53058) Salamon, Simon. Riemannian geometry and holonomy groups. Pitman Research Notes in Mathematics Series, 201. Longman Scientific & Technical, Harlow; copublished in the United States with John Wiley & Sons, Inc., New York, 1989. viii+201 pp.
- MR1122857 (92e:53066) Salamon, S. M. Self-duality and twistor geometry. Conference on Differential Geometry and Topology (Sardinia, 1988). Rend. Sem. Fac. Sci. Univ. Cagliari 58 (1988), suppl., 51–72.
- MR0982532 (90j:58036) Salamon, S. M. Degrees of minimal surfaces in 4-manifolds. Harmonic mappings, twistors, and σ -models (Luminy, 1986), 210–223, Adv. Ser. Math. Phys., 4, World Sci. Publishing, Singapore, 1988.
- MR0967469 (89k:58064) Capria, M. Mamone; Salamon, S. M. Yang-Mills fields on quaternionic spaces. Nonlinearity 1 (1988), no. 4, 517–530.
- MR0886422 (88g:58039) Burstall, F. E.; Salamon, S. M. Tournaments, flags, and harmonic maps. Math. Ann. 277 (1987), no. 2, 249–265.
- MR0876963 (88e:58024) Burstall, F.; Rawnsley, J.; Salamon, S. Stable harmonic 2-spheres in symmetric spaces. Bull. Amer. Math. Soc. (N.S.) 16 (1987), no. 2, 274–278.
- MR0860810 (87m:53079) Salamon, S. M. Differential geometry of quaternionic manifolds. Ann. Sci. École Norm. Sup. (4) 19 (1986), no. 1, 31–55.
- MR0864861 (88m:58040) Salamon, S. M. Minimal surfaces and symmetric spaces. Differential geometry (Santiago de Compostela, 1984), 103–114, Res. Notes in Math., 131, Pitman, Boston, MA, 1985.
- MR0848842 (87i:58042) Eells, J.; Salamon, S. Twistorial construction of harmonic maps of surfaces into four-manifolds. Ann. Scuola Norm. Sup. Pisa Cl. Sci. (4) 12 (1985), no. 4, 589–640 (1986).
- MR0829230 (88b:58039) Salamon, Simon. Harmonic and holomorphic maps. Geometry seminar "Luigi Bianchi" II—1984, 161–224, Lecture Notes in Math., 1164, Springer, Berlin, 1985.
- MR0759106 (85m:53049) Salamon, S. M. Harmonic 4-spaces. Math. Ann. 269 (1984), no. 2, 169–178.
- MR0757207 Salamon, S. M. Quaternionic structures and twistor spaces. Global Riemannian geometry (Durham, 1983), 65–74, Ellis Horwood Ser. Math. Appl., Horwood, Chichester, 1984.
- MR0728393 (85i:53002) Salamon, Simon. Topics in four-dimensional Riemannian geometry. Geometry seminar "Luigi Bianchi" (Pisa, 1982), 33–124, Lecture Notes in Math., 1022, Springer, Berlin, 1983.
- MR0705691 (85a:58023) Eells, James; Salamon, Simon. Constructions twistorielles des applications harmoniques. (French) [Twistorial constructions of harmonic maps] C. R. Acad. Sci. Paris Sér. I Math. 296 (1983), no. 15, 685–687.
- MR0703476 (85d:22022) Barker, S. R.; Salamon, S. M. Analysis on a generalized Heisenberg group. J. London Math. Soc. (2) 28 (1983), no. 1, 184–192.
- MR0745254 (85h:53024) Salamon, S. M. Instantons on the 4-sphere. Rend. Sem. Mat. Univ. Politec. Torino 40 (1982), no. 3, 1–20 (1984).
- MR0663029 (84e:53044) Salamon, S. M. Quaternionic manifolds. Symposia Mathematica XXVI (Rome, 1980), pp. 139–151, Academic Press, London-New York, 1982.
- MR0664330 (83k:53054) Salamon, Simon. Quaternionic Kähler manifolds. Invent. Math. 67 (1982), no. 1, 143–171.

Editorships

Journals

EMS Surveys in Mathematical Sciences (co-editor-in-chief 2014–)
Rendiconti del Seminario Matematico di Torino (director 2009–12)
Journal of Geometry and Physics (editorial board 2000–)
Annali di Matematica Pura ed Applicata (board 1999–)
Annals of Global Analysis and Geometry (board 1993–)
Quarterly Journal of Mathematics (consulting editor 2000–)
Bollettino della Unione Matematica Italiana (board 2007–12)
Rendiconti of the University of Trieste (board 1997–09)
Differential Geometry and its Applications (1991–99)
Proceedings of the London Mathematical Society (co-editor 1998–01)
London Mathematical Society (board 1995–1998)

Postgraduate teaching

PhD students

M. Povero, 2009
G. Mihaylov, 2008
A. Gambioli, 2006
D. Conti, 2005
D. Giovannini, 2004
S. G. Chiossi, 2003
J. Armstrong, 1998
A. Fino, 1997
R. Herrera, 1997
R. Reyes-Carrión, 1994
F. Battaglia, 1993
P. Z. Kobak, 1993
M. Mamone Capria, 1990
A. F. Swann, 1990

Joint supervision

A. Andrada, 2003
L. Ugarte, 1997

Graduate courses
held in Oxford, Cortona
Pisa, Turin, have included

Geometry and analysis of manifolds with reduced holonomy
Hermitian and Riemannian geometry
Geometrical structures on Lie groups
Representations of Lie groups
Gauge theory
Complex manifolds
Curvature and characteristic classes
Holonomy groups
Lie groups and G-structures
Differential forms
Harmonic maps of surfaces
CR structures

PhD examining

has been carried out at the Universities of
Bayreuth, Berlin, Bilbao, Cambridge,
Durham, Genova, Göttingen, Nancy, Oxford, Pisa,
Strasbourg, Warwick, École Polytechnique, ENS Paris

Undergraduate teaching

Undergraduate lecture courses
taught in London, Turin, Oxford,
Maryland have included

Game Theory
Geometry I
Analisi II
Analisi III
Linear algebra and geometry
Complementi di matematica
Geometria differenziale
Functional analysis
Complex analysis, distributions & transforms (for satellite TV)
Mathematics for chemical engineering
Analytic and numerical methods
Applications of algebra
Differential equations and discrete mathematics
Maple (with design of computing projects)
Geometry of surfaces
Projective geometry
Algebraic topology
Complex algebraic curves
Differential equations
Calculus III

Administration, grants

London

Head of Department, 2013–2017

PI for Simons Collaboration Grant

'Special Holonomy in Geometry, Algebra, and Analysis' (2016–2020)

Italy

GEV1 panel member, ANVUR VQR 2004–2010

INdAM-COFUND Marie Curie calls, panel president in 2011

CIRM Trento, scientific board, 2010–

GNSAGA, board member, 2009–13

PRIN07 Differential Geometry and Global Analysis, national coordinator

PRIN05 Riemannian metrics and differentiable manifolds, local coordinator

Oxford

Dean (student discipline and welfare), Trinity College 1990–95

Postdocs

K. Dixon (from 01/09/2017)

T. B. Madsen

O. Maciá Juan

F. Lönegro

Y. Nagatomo

V. Apostolov

Lectures since 2013

Invited speaker

Inaugural conference, Simons Collaboration, Stony Brook 2016

Conference on differential geometry, Montréal 2016

Geometric function theory in higher dimension, Rome 2016

Differential geometry in the large, Florence 2016

Gravity, twistors and amplitudes, Cambridge 2016

Spring 2016 school, INdAM, Florence, June

	Geometric structures related to Hermitian manifolds, Hanover, 2016
	End of 2015 London geometry conference
	Giornata INdAM (distinguished lecture), Bologna 2015
	Spin geometry and analysis on manifolds, Luminy 2014
	Gauge theories in higher dimensions, Hannover 2014
	Complex geometry and Lie groups, Turin 2014
	Quaternionic and hyperkähler geometry, Oberwolfach 2013 (by video link)
	Geometric analysis seminar, Valencia 2013
Invited visits and seminars	at the Universities of Bayreuth, Cambridge, Imperial College, Florence, Milan, Nijmegen, Oxford, Paris 7, Sofia, Turin, UCL
General talks	The mathematical skyline, Gresham College London Lezione Lagrangiana, Università di Torino Mathematics colloquia in London, Marburg, Nancy, Sofia Lectio Magistralis for 'Le Scienze', Turin

20 June 2017