Felix Schulze

Contact:

Department of Mathematics
University College London
25 Gordon St
London WC1E 6BT, UK

Tel.: +44 20 7679 7897

Email: f.schulze@ucl.ac.uk
www: http://www.felixschulze.eu

Research Interests:

Differential Geometry, Partial Differential Equations, Geometric Analysis

Education:

2008	Hablilitation in Mathematics, Free University Berlin
2002	PhD in Mathematics, University of Tübingen, Thesis advisor: Gerhard Huisken
1999	Degree in Mathematics (Diplom), University of Tübingen, Thesis advisor: Gerhard Huisken

Appointments:

02/2013 - present	Reader in Pure Mathematics, University College London, UK
05/2008 - 01/2013	Junior Research Group Leader, Emmy Noether Program of the German Research Foundation, Free University Berlin, Germany
10/2003 - 04/2008	'Assistent', Geometric Analysis Group of K. Ecker, Free University Berlin, Germany
10/2002 - 09/2003	Postdoctoral Fellow, ETH Zürich, Switzerland
10/2000 - 09/2002	PhD Position, University of Tübingen, Germany

Grants and Awards:

01/2017 - 12/2020	Leverhulme research grant 'Advances in contact topology via Lagrangian mean curvature flow', together with J. Lotay (337,709 GBP)
01/2016 - 05/2016	Eisenbud Research Professorship at MSRI Berkeley
05/2008 - 01/2013	Emmy Noether Fellowship of the German Research Foundation (733,000 EUR)
01/2008 - 03/2010	Feodor Lynen Fellowship of the Alexander von Humboldt Foundation (27,000 EUR)
06/2007 - 06/2009	Project Grant in the Program 'Global Differential Geometry' of the German Research Foundation, joint with O. Schnürer (5,000 EUR)
09/1997 - 08/1999	Travel Grant of the Fulbright Foundation
10/1996 - 04/2000	Fellowship of the German National Academic Foundation

Editorial Boards:

Editorial Advisor, Publications of the LMS

Editorial Advisory Board, Geometric Flows

Invited Lectures:

07/2014	ERC School on Geometric Evolution Problems, Centro De Giorgi, Pisa, Italy
01/2013	KIAS Winter School in Differential Geometry, Korea

Organised workshops and seminars:

01/2018	Lagrangian Mean Curvature Flow: Progress and Problems, UCL
2013 - present	Geometric Analysis Reading Seminar, weekly, UCL
05/2013	UCL Geometry and Topology Day 3
2008 - 2013	Oberseminar Geometry and Physics, weekly, joint with K. Ecker and G. Huisken, Free University Berlin
2004 - 2005	Seminar Wave Equations, weekly, joint with K. Ecker and G. Huisken, Max-Planck-Insitute for Gravitational Physics, Potsdam

Publications:

[15] *On Short Time Existence for the planar network flow*, with A. Neves and T. Ilmanen, `arXiv:1407.4756`, (2017), to appear in J. Diff. Geom.

[14] *A local regularity theorem for mean curvature flow with triple edges*, with B. White, `arXiv:1605.06592`, (2016), to appear in J. Reine Angew. Math.

[13] *Uniqueness of compact tangent flows in Mean Curvature Flow*, J. Reine Angew. Math. (690), 163–172 (2014).

[12] *The Half-Space Property and entire positive minimal graphs in $M \times \mathbb{R}$*, with H. Rosenberg and J. Spruck, J. Differ. Geom., **95** (2), 321–336 (2013).

[11] *Expanding solitons with non-negative curvature operator coming out of cones*, with M. Simon, Math. Z. 275 (1-2), 625–639 (2013).

[10] *Stability of Hyperbolic space under Ricci-flow*, with O.C. Schnürer and M. Simon, Comm. Anal. Geom. **19**, No. 5, 1023–1047 (2011)

[9] *Foliations of asymptotically flat spcatimes by surfaces of Willmore type*, with T. Lamm and J. Metzger, 2009, Math. Ann. **350**, No. 1, 1–78 (2011).

[8] *Evolution of convex lens-shaped networks under curve shortening flow*, with O.C. Schnürer, M. Saez, A. Azzouani, M. Georgi, J. Hell, N. Jangle, A. Koeller, T. Marxen, S. Ritthaler, and B. Smith, Trans. Amer. Math. Soc. **363**, No. 5, 2265–2294 (2011).

[7] *Stability of Euclidean space under Ricci-flow*, with M. Simon and O.C. Schnürer, Comm. Anal. Geom. **16**, No. 1, 127–158 (2008).

[6] *Self-similarly expanding networks to curve shortening flow*, with O.C. Schnürer, Ann. Scuola Norm. Sup. Pisa Cl. Sci. (5) Vol. VI (2007), 511-528.

[5] *No mass drop for mean curvature flow of mean convex hypersurfaces*, with J. Metzger, Duke Math. J., Vol. 124 (2) (2008), 283–312.

[4] *Nonlinear evolution by mean curvature and isoperimetric inequalities*, J. Differ. Geom. **79** (2008), 197–241.

[3] *Stability of translating solutions to mean curvature flow*, with J. Clutterbuck and O. C. Schnürer, Calc. Var. Partial Differential Equations **29** (2007), no. 3, 281–293.

[2] *Convexity estimates for flows by powers of the mean curvature*, appendix with O.C. Schnürer, Ann. Scuol Norm. Sup. Pisa Cl. Sci. (5), Vol. V (2006), 261–277.

[1] *Evolution of convex hypersurfaces by powers of the mean curvature*, Math. Z. **251** (2005), no. 4, 721–733.

Preprints:

[4] *Remarks on the self-shrinking Clifford Torus*, with C.G. Evans and J.D. Lotay, `arXiv:1802.01423`, (2018).

[2] *Optimal isoperimetric inequalities for surfaces in arbitrary codimension in Cartan-Hadamard manifolds*, `arXiv:1802.00226`, (2018).

[1] *Ricci flow from spaces with isolated conical singularities*, with P. Gianniotis, `arXiv:1610.09753`, (2016), submitted.

Surveys:

[1] *Evolution of networks with triple junctions*, with C. Mantegazza, M. Novaga and A. Pluda, `arXiv:1611.08254`, (2016).

Invited talks over the last 4 years:

2018	·	Workshop 'Calculus of Variations', MFO, Oberwolfach, Germany
	·	Workshop 'Geometric PDE', Freiburg, Germany
	·	Workshop 'Geometrie', MFO, Oberwolfach, Germany
	·	'Conference on geometric analysis', Tsing Hua University, Beijing, China
	·	Oberseminar Analysis, MPI Leipzig, Germany
	·	Workshop 'Geometric Evolution Equations', University of Regensburg, Germany
	·	Workshop 'Geometry: exchanges and perspectives', Institut Henri Poincaré, Paris, France
2017	·	Workshop 'Geometric flows and related problems', Tokyo Institute of Technology, Tokyo, Japan
	·	Workshop 'Geometric Analysis', Centre Henri Lebesgue, Roscoff
	·	Workshop 'Analysis, Geometry and Topology of Positive Scalar Curvature Metrics', MFO, Oberwolfach, Germany
	·	Workshop 'Partial Differential Equations', MFO, Oberwolfach, Germany
	·	Workshop 'Minimal and Evolving Networks', Centro de Giorgi, Pisa, Italy
	·	Advances in Geometric Analysis, ETH Zürich, Switzerland

	·	LMS Workshop 'Variational methods in submanifold theory', University of York, UK
2016	·	Geometric PDE Workshop, University of Warwick, UK
	·	Oberseminar Geometrie, University of Münster, Germany
	·	Seminar on Differential Geometry and Analysis, University of Magdeburg, Germany
	·	Geometry Seminar, Université Pierre et Marie Curie (Jussieu), France
	·	Geometry Seminar, University of Leeds, UK
	·	Clay Research Conference, Workshop 'Mean Curvature Flow', Oxford, UK
	·	Workshop 'Geometrie', MFO, Oberwolfach, Germany
	·	Differential Geometry and PDE Seminar, UBC Vancouver, Canada
	·	MSRI Workshop 'Geometric Flows in Riemannian and Complex Geometry', Berkeley, USA.
	·	Differential Geometry Seminar, UC Irvine, Irvine, USA
	·	Geometry Seminar, Stanford University, Stanford, USA
	·	Geometry and Analysis Seminar, UC Santa Cruz, Santa Cruz, USA
	·	Colloquium, University of Arizona, Arizona,, USA
2015	·	Workshop 'Differential Geometry in the Large', MFO, Oberwolfach, Germany.
	·	Forschungseminar 'Mathematische Physik', Marburg University.
	·	Workshop on Geometric Flows: Recent Developments and Applications, BIRS, Banff, Canada
	·	Differential Geometry & Geometric Analysis Seminar, Princeton University, USA
	·	BMC - BAMC 2105, Cambridge, UK
	·	Topology and Geometry Seminar, Imperial College, London, UK
	·	Flowers and Friends, Workshop on Geometric Analysis, Frankfurt, Germany
2014	·	Workshop on Uniqueness in Analysis and Geometry, MIT, Cambridge, USA
	·	Oberseminar Analysis und Mathematische Relativitätstheorie, University Tübingen, Germany
	·	Geometric flows Program, Simons Center, Stony Brook, USA
	·	Research Seminar Darmstadt-Frankfurt-Mainz, Frankfurt University, Germany
	·	Joint Analysis Seminar, RWTH Aachen, Germany
	·	Geometric Analysis and Partial Differential Equations Seminar, University of Cambridge, UK
	·	Oberseminar Differentialgeometrie, Universität Münster, Germany
	·	Workshop on Differential Geometry, Maceió, Brasil
	·	Workshop on Geometric Invariance and nonlinear PDE, Kioloa, Australia