Robert (Rob) Hladky, Curriculum Vitae

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Personal Information

Date of Birth	3rd June 1977
Nationality	UK/US Dual Citizenship
PhD. Advisor	John M. Lee
Research Interests	Sub-Riemannian geometry and sub-elliptic equations: constant mean curvature surfaces in sub-Riemannian geometry, the tangential Cauchy-Riemann equations in CR geometry.

Education

University of Washington	PhD. 1999-2004
Oxford University	M.Math 1995-1999

Employment

University of Rochester	Assistant Professor 2006-present
Courses taught	Calculus 1,2 and 3, Precalculus Multivariable calculus, Differential Geometry Linear algebra and differential equations, Linear algebra
Dartmouth College	JWY Research Instructor 2004-2006
Courses taught	Calculus 2, Differential Equations, Multivariable calculus for physicists, Geometry of curves and surfaces, Mathematics in science and engineering, Introduction to complex manifolds (graduate)
University of Washington	Teaching Assistant 1995-1999
Courses taught as instructor	Calculus 2, 3, Differential Equations, Geometry for high school teachers Vector calculus
Mentoring	New TA mentor 2000-2001 Undergraduate research project, 2004 Undergraduate writing project on Electromagnatism, 2008 Undergraduate writing project on Fibre Bundles, 2008

Grants, Awards and Memberships

Microsoft Scholar Award	1999-2003
VIGRE Graduate Fellowship	2002-2003
Faculty Academic Excellence Award	2001
AMS Membership	1999-Present

Papers

Boundary regularity for the $\bar{\partial}_b$-Neumann problem on a model domain in the Heisenberg group. (Ph.D. Thesis, University of Washington 2004)

Boundary regularity for the $\bar{\partial}_b$-Neumann problem, part 1. (Journal of Geometric Analysis, 16 (2006) no. 1, p.117-153)

Boundary regularity for the $\bar{\partial}_b$-Neumann problem, part 2. (Journal of Geometric Analysis, 16 (2006) no. 2, p. 295-318)

Constant mean curvature surfaces in sub-Riemannian geometry. (with S.D. Pauls) (Journal of Differential Geometry, 79 (2008) no.1, p. 111-139)

Minimal surfaces in the roto-translation group. (with S.D. Pauls, submitted, arXiv/math.DG/0509636v1)

Variation of perimeter measure in sub-Riemannian geometry. (with S.D. Pauls, submitted, arXiv/math.DG/0702237v1)

The $\bar{\partial}_b$-Neumann problem on noncharacteristic domains (submitted, arXiv/0803.0336v1)

Counter-examples in the $\bar{\partial}_b$-Neumann problem (in preparation)

The $\bar{\partial}_b$-Neumann problem on characteristic domains (in preparation)

Stable CMC surfaces in the Heisenberg groups (in preparation)

Workshops

Geometry and Analysis on CR manifolds, *BIRS, Banff, Canada 2004.*

Geometry of CR manifolds, *Academia Sinica, Taiwan 2003.*

Committees

Organizational committee for the University of Rochester geometry seminar, 2008

Ph.D. supervisory committee for Dan Cole, Dartmouth College 2005

VIGRE Planning Committee, University of Washington 2002-2003
& Subcommittee for selection of Distinguished Speakers

Organiser of the graduate student seminar in geometry and analysis, University of Washington 2003

Presentations

Lecture for visiting high school students *Rochester, 2008.*
– "Non-Euclidean geometry and the shape of space."
Geometry seminar *Rochester, 2008.*
– "Regularity and esimates for the $\bar{\partial}_b$-complex."
Conference on Analysis on Harmonic spaces, *Tucson, AZ, 2007.*
– "Minimal and CMC surfaces in sub-Riemannian geometry."
Dept. of Computer Vision Science seminar, *Rochester, NY, 2007.*
– "Modeling the visual cortex in subRiemannian geometry."
Analysis and Geometry seminar *Rochester, 2006.*
– "CR manifolds and the $\bar{\partial}_b$-complex"
AMS Special Session, *Storrs, CT, 2006.*
– "Minimal surfaces and isoperimetric domains in sub-Riemannian geometry."
Analysis and Geometry seminar *Rochester, 2006.*
– "Variational problems in subRiemannian geometry (2 talk series)."
Conference on geometric analysis and applications *UIUC, 2006.*
– "Variation of horizontal perimeter measure."
Summer school on real pde's in complex and CR geometry, *CIRM, Italy, 2005.*
– "The Kohn Laplacian on the Heisenberg Ball."
– "Minimal surfaces in pseudohermitian geometry."
Conference on minimal surfaces, subelliptic pde and geometric analysis, *Dartmouth, 2005.*
– "Boundary regularity for the $\bar{\partial}_b$-Neumann problem."
AMS Special Session, *Albuquerque, 2004.*
– "Boundary regularity for the $\bar{\partial}_b$-Neumann problem."
Geometry Seminar, *Dartmouth 2004-2005*
– "Introduction to CR geometry." (3 talk series)
– "Minimal and isoperimetric surfaces in sub-Riemannian geometry." (3 talk series)
Current Topics in Mathematics, Seminar, *UW, 2004.*
– "Geodesics in sub-Riemannian geometry"
Student Geometry and Analysis Seminar, *UW, 2001-2004.*
– "Complex and CR geometry."
– "The Yamabe Problem."