

Curriculum Vitae

Jiří Lebl

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Education:

PhD in Mathematics, Spring 2007, University of California at San Diego
Thesis: *Singularities and Complexity in CR Geometry*
Advisor: Prof. Peter Ebenfelt

MA in Mathematics, Spring 2003, San Diego State University

BA in Mathematics, Spring 2001, San Diego State University

Employment:

2007–present J. L. Doob Research Assistant Professor,
University of Illinois at Urbana-Champaign. Urbana, IL
2004–2007 Teaching Assistant in Mathematics,
University of California at San Diego. La Jolla, CA
2003 Programmer, *Red Hat, Inc.* Raleigh, NC
2002 Teaching Assistant in Mathematics,
San Diego State University. San Diego, CA
2000–2001 Programmer, *Eazel, Inc.* Mountain View, CA
1999 Programmer/Consultant, *Spyder, Inc.* San Diego, CA
1996–1998 Programmer/Consultant, *Trega, Inc.* San Diego, CA

Publications:

- [1] Jiří Lebl, *Singular Levi-flat hypersurfaces in complex projective space*, preprint arXiv:0805.1763.
- [2] John P. D’Angelo, and Jiří Lebl, *Convex families of proper mappings between balls*, preprint arXiv:0802.1739.
- [3] Jiří Lebl, *Levi-flat hypersurfaces with real analytic boundary*, preprint arXiv:0710.3801.
- [4] John P. D’Angelo, and Jiří Lebl, *Complexity results for CR mappings between spheres*, to appear in *Internat. J. Math.*, preprint arXiv:0708.3232.
- [5] Jiří Lebl, *Singularities and complexity in CR geometry*, PhD thesis, University of California at San Diego, La Jolla, CA, 2007.
- [6] Jiří Lebl, *Extension of Levi-flat hypersurfaces past CR boundaries*, *Indiana Univ. Math. J.*, **57** (2008), no. 2, 699–716, arXiv:math.CV/0612071.
- [7] John P. D’Angelo, Jiří Lebl, and Han Peters, *Degree Estimates for Polynomials Constant on a Hyperplane*, *Michigan Math. J.*, **55** (2007), no. 3, 693–713, **MR** 2372622, arXiv:math.CV/0609713.
- [8] Jiří Lebl, *Nowhere minimal CR submanifolds and Levi-flat hypersurfaces*, *J. Geom. Anal.*, **17** (2007), no. 2, 321–341, **MR** 2320166, arXiv:math.CV/0606141.

Research Interests:

My research interests include several complex variables and CR geometry. In particular CR submanifolds and their mappings. Recently I have studied nowhere minimal CR submanifolds, singular Levi-flat hypersurfaces, and proper holomorphic maps between balls in different dimensions. I am also interested in singularity structure of real analytic and real algebraic subvarieties as they pertain to CR geometry, and hence certain issues in real and complex algebraic geometry. See my research statement for further information.

More specifically, my current research plans are to further study the connections between Levi-flat hypersurfaces and nowhere minimal CR submanifolds of higher codimension and to study the singular set of Levi-flat hypersurfaces, and boundary behaviour of smooth Levi-flat hypersurfaces. Also, I am trying to understand the complexity of the space of proper mappings between balls and related problems.

Favorite MSC 2000 classification numbers: 32, 14, 35

Presentations:

Levi-flat hypersurfaces with real analytic boundary, Special session CMS meeting, December 2007, London, ON.

Extensions of Levi-flat hypersurfaces past CR boundaries, Special session AMS meeting, October 2007, Chicago, IL.

Singularities of Levi-Flat Hypersurfaces, International Conference in PDE, Complex Analysis, and Differential Geometry, June 2006, Notre Dame, IN.

I have also given several seminar talks at UCSD, UIUC, UW-Madison, and Cal State San Marcos about my research and several complex variables in general.

Teaching Experience:

At University of Illinois, I have taught two sections of Math 380 advanced calculus. The material covered is integral calculus of several variables. Currently I am teaching Math 124 finite mathematics. As San Diego State University I have taught Math 210, mathematics for elementary school teachers. At University of California at San Diego I have been leading problem sections and grading for Calculus (Math 20B), Real Analysis (Math 140A, 142A, and 240A/B/C) and Complex Analysis (220A/C).

Programming/Computer Experience:

I have extensive programming experience, mostly in C and C++. Other languages I have had some acquaintance with are Tcl, Perl, PHP, BASIC, Pascal, GEL, Lisp, Matlab/Octave, Maple, and others. I have been a major contributor to the GNOME project for several years (<http://www.gnome.org>), and have been employed as a programmer several times. I have had several programming tutorials published in Linux and GNOME related publications, and have given several talks on GNOME, programming and security at GNOME and Linux conferences. I am the author of a free software mathematics package Genius (<http://www.jirka.org/genius.html>). I have extensive knowledge of L^AT_EX, having written the thesis style for San Diego State University mathematics department. I am also a frequent contributor to Planetmath (<http://planetmath.org>).

Citizenship/Visa:

Citizenship: Czech Republic

Visa: Permanent resident (green card)