Nils Ackermann **May 2010** **curriculum vitae**

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Education

Ph.D. in Mathematics, University of Giessen, Germany, *magna cum laude*; title of dissertation: *Localization of Low Energy Solutions of a Singularly Perturbed Elliptic Neumann Problem via the Geometry of the Domain Boundary*; dissertation directed by Professor Thomas Bartsch — July 1999

***Diplom* in Mathematics**, University of Karlsruhe, Germany, *summa cum laude*; title of thesis: *The Number of Positive Solutions of Semilinear Elliptic Neumann Problems*; thesis directed by Professor Thomas Bartsch — February 1996

***Vordiplom* in Physics**, University of Karlsruhe — August 1990

Professional Positions

Postgraduate position at the University of Giessen, Germany	1996–2001
Research Fellow, University of Giessen	2001–2004
Research Fellow, University of Sydney, Australia	2005–2006
Assistant Professor, Mathematics Institute, UNAM, Mexico City	since 2006

Research Interests

- Nonlinear Partial Differential Equations of Elliptic and Parabolic Type
- Topological and Variational Methods in Nonlinear Analysis

Honors

Diplom thesis placed in top six contributions among 55 at the German national *Mathematics Student's Conference*, Ulm — 1995

Research Fellowship in Giessen, advisor: Thomas Bartsch, sponsor: DFG (German national research agency)	2001–2004
Research Fellowship in Sydney, advisor: Norman Dancer, sponsor: ARC (Australian Research Council)	2005–2006

Grants

Travel grant from the *Alexander von Humboldt Foundation*, amount: EUR 1060	August 2002
Travel grant from the DFG, amount: EUR 1276	July 2004
Group research grant from the CONACYT (with Mónica Clapp as leader, and Carlos Prieto), amount: MXN 300,000	August 2007
Individual research grant from the UNAM (PRIDE B), amount: MXN 8200/mo	since 2007
Individual research grant from the CONACYT (SNI 1), amount: MXN 9864/mo	since 2008
PAPIIT group research grant from the UNAM (with Mónica Clapp as leader, and Carlos Prieto), amount: MXN 200,000	December 2008

Editorial Activities

Associate Editor, *International Journal of Mathematics and Mathematical Sciences*

Teaching Experience

Teaching assistant, University of Karlsruhe, Germany	1990–1994
Teaching assistant, University of Heidelberg, Germany	1995–1996
Senior teaching assistant, University of Giessen, Germany	1996–2001
Visiting Scholar, University of Wisconsin, Milwaukee, USA	Summer 2003
Lecturer, Faculty of Science, UNAM, Mexico	since 2006

Courses Given

Minimax methods in the calculus of variations	July 2003
Functional Analysis with applications to Partial Differential Equations	Fall 2006

The Mapping Degree and its Applications in Nonlinear Analysis	Spring 2007
Functional Analysis with applications to Partial Differential Equations	Fall 2007
The Mapping Degree and its Applications in Nonlinear Analysis	Spring 2008
Functional Analysis with applications to Partial Differential Equations	Fall 2008
The Mapping Degree and its Applications in Nonlinear Analysis	Spring 2009
Spectral Theory	Fall 2009
Abstract Evolution Equations and Semilinear Parabolic Problems	Spring 2010

Refereeing and Reviewing

- Acta Applicandae Mathematicae
- Acta Mathematica Universitatis Comenianae
- Bulletin of the London Mathematical Society
- Communications in Partial Differential Equations
- Communications on Pure and Applied Analysis
- Complex Variables and Elliptic Equations
- Discrete and Continuous Dynamical Systems. Series A
- ESAIM Control, Optimisation and Calculus of Variations
- International Journal of Mathematics and Mathematical Sciences
- Journal of Differential Equations
- Journal of Mathematical Analysis and Applications
- Journal of Mathematical Physics
- Mathematical Reviews
- Memorias de la SMM
- Nonlinear Analysis
- Proceedings of the Royal Society of Edinburgh. Section A
- SIAM Journal on Mathematical Analysis
- Transactions of the American Mathematical Society

- Zentralblatt Math

Invited Seminar Presentations

FU Berlin, Germany	June 2002
Comenius University, Bratislava, Slovak Republic	February 2003
University of Mainz, Germany	May 2003
University of Essen, Germany	May 2004
UAM, Mexico City	October 2004
UNAM (Escuela de Otoño), Mexico City	October 2004
University of Sydney, Australia	April 2006
UNSW, Sydney, Australia	April 2006
ITAM, Mexico City	November 2006
UAM, Mexico City	November 2006
University of Giessen, Germany	June 2007
IPN, Mexico City	May 2009
UAEM, Toluca, Mexico	November 2009
University of Rome I (La Sapienza), Italy	February 2010

Invited Talks at Conferences

TVMNLA, Cuernavaca, Mexico	February 1999
EQUADIFF 10, Prague, Czech Republic	August 2001
Nonlinear Functional Analysis, Taiyuan, PR of China	August 2002
Variational Methods and the Nonlinear Schrödinger Equation, Lausanne, Switzerland	February 2004
World Congress of Nonlinear Analysts, Orlando, USA	July 2004
Topological and Variational Methods for Differential Equations, Oberwolfach	June 2005
TVMPDE, Guanajuato, Mexico	December 2005
TCNPDE, Mexico City	January 2007

VII Joint Meeting AMS&SMM, Zacatecas, Mexico	May 2007
8th International Conference on Operations Research, Havana, Cuba	February 2008
II Joint Meeting CMS&SMM, Vancouver, Canada	August 2009

Workshops and Seminars Visited

DMV seminar on *Symplectic Geometry and Hamiltonian Dynamics*, Blaubeuren, Germany	June 1993
Workshop on *Nonlinear Eigenvalue Problems*, Oberwolfach, Germany	December 1996
Summer school on *Numerical Dynamical Systems*, TU Hamburg-Harburg, Germany	September 1999
DMV seminar on *Reaction-Diffusion Patterns: Theory and Applications*, Oberwolfach	November 1999

Memberships

- *DMV*, German Mathematician's Association
- *SMM*, Mexican Mathematical Society
- *AMS*, American Mathematical Society

Language Skills

- German (native speaker)
- fluent English
- fluent Spanish

Published or Accepted Articles

[1] N. Ackermann, *Multiple single-peaked solutions of a class of semilinear Neumann problems via the category of the domain boundary*, Calc. Var. Partial Differential Equations **7** (1998), no. 3, 263–292.

[2] N. Ackermann, *On a periodic Schrödinger equation with nonlocal superlinear part*, Math. Z. **248** (2004), no. 2, 423–443.

[3] N. Ackermann, *A Cauchy-Schwarz type inequality for bilinear integrals on positive measures*, Proc. Amer. Math. Soc. **133** (2005), no. 9, 2647–2656 (electronic).

[4] N. Ackermann and T. Weth, *Multibump solutions of nonlinear periodic Schrödinger equations in a degenerate setting*, Commun. Contemp. Math. **7** (2005), no. 3, 269–298.

[5] N. Ackermann and T. Bartsch, *Superstable manifolds of semilinear parabolic problems*, J. Dynam. Differential Equations **17** (2005), no. 1, 115–173.

[6] N. Ackermann, *A nonlinear superposition principle and multibump solutions of periodic Schrödinger equations*, J. Funct. Anal. **234** (2006), no. 2, 277–320.

[7] N. Ackermann, T. Bartsch, and P. Kaplický, *An invariant set generated by the domain topology for parabolic semiflows with small diffusion*, Discrete Contin. Dyn. Syst. **18** (2007), no. 4, 613–626.

[8] N. Ackermann, T. Bartsch, P. Kaplický, and P. Quittner, *A priori bounds, nodal equilibria and connecting orbits in indefinite superlinear parabolic problems*, Trans. Amer. Math. Soc. **360** (2008), no. 7, 3493–3539.

[9] N. Ackermann, *Solution set splitting at low energy levels in Schrödinger equations with periodic and symmetric potential*, J. Differential Equations **246** (2009), no. 4, 1470–1499.

[10] N. Ackermann, *Long-time dynamics in semilinear parabolic problems with autocatalysis*, Recent progress on reaction-diffusion systems and viscosity solutions (Y. Du, H. Ishii, and W.Y. Lin, eds.), World Sci. Publ., Hackensack, NJ, 2009, pp. 1–30.

Articles in Conference Proceedings

[11] N. Ackermann, *On the multiplicity of sign changing solutions to nonlinear periodic Schrödinger equations*, Topological methods, variational methods and their applications (Taiyuan, 2002), World Sci. Publishing, River Edge, NJ, 2003, pp. 1–9.

[12] N. Ackermann, *An abstract approach to multibump solutions of periodic Schrödinger equations and applications*, Nonlin. Anal. **63** (2005), e1031–e1037.