### Curriculum Vitae

## Wolfgang Heil

# February 2023

## **Professional Preparation**

1970	Ph.D. Rice University, Houston, Texas. Major: Mathematics. Supervisor: J. Hempel. $P^2$ -irreducible 3-manifolds. Doctoral dissertation.
1967	M.S. (Diplom für Mathematiker), Goethe University, Frankfurt, Germany. Major: Mathematics. Supervisor: H. Zieschang. Seifert Fiber Spaces and Surface Maps. Master's thesis.
1963	B.S. (Vordiplom für Mathematiker), Goethe University, Frankfurt, Germany. Major: Mathematics and Physics, Supervisor: G. Burde

## **Professional Experience**

1983-present	Professor, Mathematics, Florida State University.
1975-1983	Associate Professor, Mathematics, Florida State University.
1970-1975	Assistant Professor, Mathematics, Florida State University.
1969-1970	Instructor in Mathematics, Mathematics, Rice University.
1968-1969	Teaching Assistant, Mathematics, Rice University.
1964-1967	Graduate Assistant, Mathematics, Goethe University Frankfurt.

### Honors and Awards

Nominee for University Distinguished Teacher Award, 2017, 2018, 2019 University Teaching Award, Florida State University 1988

## **Fellowships**

1994	DAAD-Fellowship, Goethe University, Frankfurt, Germany.
1973	DFG-Fellow, Center for Interdisciplinary Research, Bielefeld, Germany.
1967	DAAD-Fellowship, University of Illinois, Urbana (1967-1968)

#### Visiting Scholarships and Professorships

- 2016 2015, 2013, 2012, 2011, 2008, 1999, 1998, 1997
  Centro de Investigación en Matemáticas, Guanajuato, Mexico.
- 2014 University of Hawaii at Manoa.
- 2006 Portland State University, Portland, Oregon.
- 2004 University of Hawaii at Manoa.
- 2003 University of Melbourne, Australia
- 2003 University of Texas at Austin.
- 2002 University of Konstanz, Germany.
- 2001 University of Hawaii at Manoa.
- 1999 Goethe University, Frankfurt, Germany.
- 1997 Goethe University, Frankfurt, Germany.
- 1995 Portland State University, Portland, Oregon.
- 1994 Goethe University, Frankfurt, Germany.
- 1993 Goethe University, Frankfurt, Germany.
- 1988 Goethe University, Frankfurt, Germany.
- 1984 F.Alexander University, Erlangen, Germany.
- 1981 F.Alexander University, Erlangen, Germany.
- 1980 Goethe-University, Frankfurt, Germany.
- 1977 University of Ljubljana, Yugoslavia (1977-1978)
- 1973 Center for Interdisciplinary Research, Bielefeld, Germany.

#### **Invited Presentations at Conferences**

- 2019 The study of 2-stratifolds as models for applications, talk at minisymposium From Algebraic Geometry to Geometric Topology: Crossroads on Applications, SIAM Conference on Applied Algebraic Geometry, Bern, Switzerland.
- 2015 2-stratifolds, invited talk, 2nd International Conference on Topological Data Analysis, Juriquilla, Queretaro, Mexico, delivered by Goméz-Larrañaga.
- 2013 3-manifolds with K-category 2 for K a circle, 2-sphere, projective plane, torus or Klein bottle. Plenary talk at Escuela de nudos y 3-variedades en CIMAT, Guanajuato, Mexico: CIMAT and Mexican Math. Soc.
- 2013 Amenable cats. FSU-UF Topology Meeting, Tallahassee, FL: FSU
- 2012 Categorical invariants of manifolds. Conference in 3-Manifolds and Knot Theory, Guanajuato, Mexico: CIMAT and Mexican Math. Soc.
  - Amenable category of 3-manifolds. Conference in 3-Manifolds and Knot Theory, Guanajuato, Mexico: CIMAT and Mexican Math. Soc.
- 2006 Hempel-McMillan coverings of 3-manifolds. Joint Canadian-Mexican Math. Conference, Guanajuato, Mexico: Canadian Math. Soc./ Mexican Math. Soc.

- 2002 Burde-Murasuki graphs in  $S^3$ . Frankfurt-Bochum Geometry Seminar, Frankfurt, Germany: DFG (German Research Society).
- 1999 Seifert unions of solid tori. Frankfurt-Bochum Geometry Seminar, Frankfurt, Germany: DFG (German Research Society).
- 1997 The Stallings-Epstein Conjecture. Workshop on low-dim. Topology, Luttach, Italy: DFG (German Research Society).
- 1995 Burde-Murasugi Graphs. Conference on Knot Theory, Tokyo, Japan: Waseda University.
- 1994 Stiefel-Whitney Surfaces in 3-manifolds. Geometric Group Theory Seminar, Frankfurt, Germany: DFG.
- 1994 Seifert unions of solid tori. Joint Florida Topology Conference, Gainesville, FL: University of Florida.
- 1994 Stiefel-Whitney Surfaces and Decompositions of 3-manifolds into Handlebodies. Internat.Conf. on low-dim.Topology, Marseille, France: University of Marseille.
- 1992 On the tri-genus of non orientable 3-manifolds. Second Workshop on Topology, Guanajuato, Mexico: CIMAT and Mexican Math. Soc.
- 1992 Orientable 3-fillings of nonorientable 3-manifolds. Conference on low-dimensional Topology, Knoxville, TN: University of Knoxville.
- 1991 Dehn fillings on once punctured Klein bottle bundles. Oberwolfach Topology Conference, Oberwolfach, Germany: Oberwolfach Research Institute.
- 1983 On Nielsen's theorem for 3-manifolds. University of Georgia Topology Conference, University of Georgia.
- 1983 Stiefel-Whitney surfaces. Florida Topology Conference, Tallahassee, Fl: Florida State University.
- 1982 On fillings of 3-manifolds. Florida Topology Conference, Gainesville, Fl: University of Florida.
- 1977 Involutions on 3-manifolds. Geometric Topology Conference, Sussex, England: University of Sussex.

#### Invited Lectures

- 2019 2-stratifolds and 3-manifolds, University of Karlsruhe, Karlsruhe, Germany.
- 2016 A classification of trivalent simply connected 2-stratifols, Análisis Topológico de Datos para Matemáticas y Aplicationes seminar, CIMAT, Guanajuato, Mexico.
- 2015 Introduction to cohomology. Seminar Centro de Investigación en Matemáticas, Guanajuato, Mexico.
- 2011 Minicourse on 3-manifolds: The Geometrization Conjecture. Centro de Investigación en Matemáticas, Guanajuato, Mexico.
- 2003 Coverings of 3-manifolds by solid tori. University of Texas, Texas, Austin.
- 2003 Coverings of 3-manifolds by solid tori. Centro de Investigación en Matemáticas, Guanajuato, Mexico.
- 2002 Seifert Unions and Spaces of Graphs. University of Bayreuth, Bayreuth, Germany.
- 2002 Seifert Unions and Spaces of Graphs. University of Trieste, Trieste, Italy.
- 2002 Burde-Murasuki graphs in  $S^3$ . University Ljubljana, Slovenia, 2002, University Ljubljana, Slovenia, 2002.
- 2001 Seifert-Takens-Singhof fillings of 3-manifolds. University of South Florida, Tampa, FL.
- 1999 The Seifert Fiber Space conjecture for non-orientable 3-manifolds. British Columbia, Vancouver, Canada.
- 1999 Seifert-Takens-Singhof fillings of 3-manifolds. Topology Seminar University of BC, Vancouver, Canada.
- 1999 Singhof fillings of closed 3-manifolds. University of Bochum, Bochum, Germany.
- 1999 The Seifert Fiber Space conjecture and Torus Theorem for non-orientable 3-manifolds. University of Konstanz, Konstanz, Germany.
- 1999 The Seifert Fiber Space conjecture and Torus Theorem for non-orientable 3-manifolds. Erlangen, Erlangen, Germany.
- 1997 The Seifert Fiber Space conjecture. UNAM, Mexico City, Mexico.

- 1997 The Seifert Fiber Space conjecture. Centro de Investigación en Matemáticas, Guanajuato, Mexico.
- 1997 The Seifert Fiber Space conjecture. Goethe University, Frankfurt, Germany.
- 1993 3-manifolds that are unions of three handlebodies of genus at most 1. Topology Seminar Goethe University, Frankfurt, Germany.
- 1993 Wind velocity fields and Algebraic Topology. Goethe University, Frankfurt, Germany, 1993.
- 1992 Dehn fillings on Klein bottle bundles. University of St. Louis, St. Louis, MO.
- 1992 Incompressible surfaces in Kleinbottle bundles. Topology Seminar University of St. Louis, St. Louis, MO.
- 1988 Vector fields and algebraic topology. University of Bochum, Bochum, Germany.
- 1988 Commutators and Squares in Free Groups. Goethe University, Frankfurt, Germany.
- 1988 Products of Commutators and Squares in Free Groups. University of Erlangen, Erlangen, Germany.
- 1985 Klein bottles in nonorientable 3-manifolds of genus 2. University Zagreb, Zagreb, Yugoslavia.
- 1985 Essential tori in nonorientable 3-manifolds of genus 2. University of Ljubljana, University of Ljubljana, Yugoslavia.
- 1985 Genus 2 Heegaard Splittings of non-orientable 3-manifolds. Padova, Padova, Italy.
- 1985 Essential tori and Klein bottles in nonorientable 3-manifolds of genus 2. University of Graz, Graz, Austria.
- 1985 Essential tori and Klein bottles in nonorientable 3-manifolds of genus 2. University of Erlangen, Erlangen, Germany.
- 1985 On Nielsen's theorem for 3-manifolds. Goethe University, Frankfurt, Germany.
- 1985 Graphs and projective planes in 3-manifolds. University of Trieste, Trieste, Italy.
- 1981 Classification of 3-manifolds. University of Heidelberg, Germany.
- 1981 Finitely presented subgroups of 3-manifold groups. University of Würzburg, Germany.

- 1980 3-manifold groups. Goethe Univeristy, Frankfurt, Germany.
- 1980 Fundamental groups of 3-manifolds. University of Bochum, Germany.
- 1978 Surface groups in 3-manifold groups. University of Zagreb, Yugoslavia.

### Ph.D. Students

- 2020 John Bergschneider
- 2019 Aamir Rashheed
- 2013 Dongxu Wang
- 2004 Caroline Boulis
- 1990 Pedja Raspapovič
- 1987 Ivan Cardona
- 1979 Janez Rakovèc