Dominik Wrazidlo

Institute of Mathematics for Industry,
Kyushu University
Motooka 744, Nishi-ku, Fukuoka
819-0395, Japan

Office: W1-C-620
Email: d-wrazidlo@imi.kyushu-u.ac.jp
URL: http://imi.kyushu-u.ac.jp/~d-wrazidlo/

Citizenship

German

Education

September 2017	**Ph.D.** Mathematics, Heidelberg University
	Title: *Fold Maps and Positive Topological Quantum Field Theories* [**pdf**]
	Supervisor: Prof. Dr. Markus Banagl
July 2013	**M.S.** Mathematics (second subject: Physics), Heidelberg University
	Title: *Induced Maps between Intersection Spaces* [**pdf**]
	Supervisor: Prof. Dr. Markus Banagl
July 2011	**B.S.** Mathematics (second subject: Physics), Heidelberg University
	Title: *The Kähler Relations*
	Supervisor: Prof. Dr. Eberhard Freitag
June 2008	High school graduation at Ottheinrich-Gymnasium Wiesloch
July 1999	Elementary school graduation at Grundschule Frauenweiler

Fields of Research Interest

Algebraic Topology, Differential Topology
Global Singularity Theory of Smooth Maps
Topology of Stratified Spaces

Publications (with peer-review process)

1. **D.J. Wrazidlo**, *Standard special generic maps of homotopy spheres into Euclidean spaces*, Topology Appl. **234** (2018), 348–358. https://doi.org/10.1016/j.topol.2017.11.037
2. M.T. Plate, **D.J. Wrazidlo**, *On the trail of Napoleon: Vertex triangles with constant interior angles*, Junge Wiss. **26**, no. 89 (2011), 16–22.

Preprints and publications without peer-review process

1. **D.J. Wrazidlo**, *Time-interacting fields and actions in positive topological field theories*, in preparation (2018). [**pdf**]
2. **D.J. Wrazidlo**, *Singular patterns of generic maps of surfaces with boundary into the plane*, preprint (2018). [**pdf**]
3. **D.J. Wrazidlo**, *Detecting exotic spheres via fold maps*, 2018, to appear in: RIMS Kokyuroku.
4. **D.J. Wrazidlo**, *Bordism of constrained Morse functions*, preprint (2018). https://arxiv.org/abs/1803.11177

Scholarships and Fellowships

from 2018/11	**JSPS Postdoctoral Fellowship**
	for research in Japan (Standard)
2014 – 2017	**German National Merit Foundation (Studienstiftung des dt. Volkes)**
	Scholarship for doctoral research
2011 – 2017	**students@bosch**
	Entrance Fellowship
2008 – 2013	**German National Merit Foundation (Studienstiftung des dt. Volkes)**
	Scholarship for academic studies

Employment and Work Experience

2017 – today	Post-doctoral researcher at IMI, Kyushu University
February 2011	Industrial internship at Robert Bosch GmbH in Stuttgart-Feuerbach
	Department "Development of information processing"
	Period: February 15, 2011 – April 1, 2011
	Title of project: "Contact calculation for the contact of a moving part and a cam via multi body simulation"

Teaching Positions Held

2011 – 2017	**Graduate Teaching Assistant**, Heidelberg University
	Teaching language: German
	• Algebraic Topology 1 (Fall 2016/17)
	• Advanced Analysis (Fall 2015/16)
	• Analysis 2 (Summer 2015)
	• Analysis 1 (Fall 2014/15)
	• General Topology* (Summer 2014)
	• Complex Analysis 2* (Fall 2013/14)
	• Complex Analysis 1* (Summer 2013)
	• Differential Topology 1 (Fall 2012/13)
	• Complex Analysis 1 (Summer 2012)
	• Complex Analysis 2 (Fall 2011/12)
	* *Position included the conception of problem sheets and final exams, and presenting the main tutorial*
2009 – 2011	**Undergraduate Teaching Assistant**, Heidelberg University
	Teaching language: German
	• Complex Analysis 1 (Summer 2011)
	• Analysis 2 (Summer 2010)
	• Analysis 1 (Fall 2009/10)

Talks and Presentations

May 2018	Talk: *Intersection Spaces and Poincaré Duality*
	Differential geometry, differential systems, applied singularity theory, Hiroshima
April 2018	Talk: *The Milnor 7-sphere does not admit a special generic map into* $\mathbb{R}^3$
	Topology in Australia and South Korea, POSTECH, Pohang
February 2018	Talk: *Bordism of constrained Morse functions*
	Singularity theory and its applications, Hokkaido University
February 2018	Talk: *Fold maps, positive topological field theories, and exotic spheres*
	13th Algebra-Analysis-Geometry Seminar, Kagoshima University
November 2017	Talk: *Detecting exotic spheres via fold maps*
	Local and global study of singularity theory of differentiable maps, RIMS, Kyoto
November 2017	Poster: *The Milnor 7-sphere does not admit a special generic map into* $\mathbb{R}^3$
	The 5th FJV Symposium on Singularities, Kagoshima University
July 2017	Talk: *Detecting exotic spheres via fold maps*
	Young Topologists Meeting, Stockholm University
November 2016	Talk: *Detecting exotic smooth structures on spheres via indefinite fold singularities*
	Oberseminar, Augsburg University
November 2015	Talk: *Positive topological quantum field theories and fold maps*
	Physical Mathematics Seminar, Heidelberg University

Participation in Conferences and Schools

June 2017	*Analysis and Topology in Interaction*, Cortona
May/June 2017	*Thematic School of Algebra & Topology 2017: Sheaf Theoretic Methods in Topology*, University of Picardie (Amiens)
April 2017	*Spring School on Applied and Computational Algebraic Topology*, HIM Bonn
August 2016	*Focus Program on Topology, Stratified Spaces and Particle Physics*, Summer School, Fields Institute Toronto
June 2016	*Young Topologists Meeting*, University of Kopenhagen
August 2014	*Understanding Stratified Spaces from an Analytic and Topological Viewpoint*, Summer School, Humboldt University of Berlin