

# CURRICULUM VITAE

## JORDAN ALAN WATTS

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### ADDRESS

Department of Mathematics  
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### PERSONAL DETAILS

Citizenship: Canadian (Permanent Resident of USA)      Languages: English

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### RESEARCH INTERESTS

differential topology, generalisations of smooth structures (Sikorski differential spaces, subcartesian spaces, diffeology, Lie groupoids, stacks), Lie group actions, symplectic geometry, Hamiltonian group actions, orbifolds; applications of topological techniques in data analysis

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### APPOINTMENTS

2018-            **Central Michigan University** (Mount Pleasant, MI, USA)  
— Assistant Professor

2018            **University of Nebraska-Lincoln** (Lincoln, NE, USA)  
— Postdoc at the National Drought Mitigation Center (data scientist)

Fall, 2017      **University of Colorado Boulder** (Boulder, CO, USA)  
— Lecturer

2015-2017      **University of Colorado Boulder** (Boulder, CO, USA)  
— Burnett Meyer Postdoc

2012-2015      **University of Illinois at Urbana-Champaign** (Champaign-Urbana, IL, USA)  
— J. J. Uhl Research Assistant Professor

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### EDUCATION

2012            **University of Toronto** (Toronto, ON, Canada)  
**PhD in Mathematics**  
— Supervisor: Yael Karshon (University of Toronto)

2007            **University of Toronto** (Toronto, ON, Canada)  
**MSc in Mathematics** (Course-based)  
— Mentor: Yael Karshon (University of Toronto)

2006            **University of Calgary** (Calgary, AB, Canada)  
**MSc in Applied Mathematics** (Thesis-based)  
— Supervisor: Jędrzej Śniatycki (University of Calgary)

## AWARDS AND GRANTS

“University-wide data science program”, part of the President’s and Provost’s Fund for Program Innovation and Excellence

NSF Grant DMS 1543812 for the Gone Fishing 2016 Conference (co-PI)

## PAPERS AND PUBLICATIONS

My Erdős number is 4!

Jordan Watts  $\rightsquigarrow$  Yael Karshon  $\rightsquigarrow$  Shlomo Sternberg  $\rightsquigarrow$  Fan Chung  $\rightsquigarrow$  Paul Erdős

### Published

Jordan Watts, “The orbit space and basic forms of a proper Lie groupoid”, *Trends in Mathematics, Research Perspectives: Proceedings of the 12th ISAAC Congress, Aveiro, Portugal, 2019*, Birkhäuser (to appear).

Carla Farsi, Laura Scull, and Jordan Watts, “Classifying spaces and Bredon (co)homology for transitive groupoids”, *Proc. Amer. Math. Soc.*, **148** (2020), 2717–2737.

Suzanne Craig, Naiche Downey, Lucas Goad, Michael Maloney, Jordan Watts, “Orbit Spaces of Linear Circle Actions”, *Involve* **12** (2019), 941–959.

Derek Krepski and Jordan Watts, “Gerbes as Dixmier-Douady bundles and differential characters”, *J. Geom. Phys.*, **130** (2018), 168–183.

Jean-Pierre Magnot and Jordan Watts, “The diffeology of Milnor’s classifying space”, *Topol. Appl.* **232** (2017), 189–213.

Susan Tolman and Jordan Watts, “Tame circle actions”, *Trans. Amer. Math. Soc.* **369** (2017), 7443–7467.

Yael Karshon and Jordan Watts, “Basic forms and orbit spaces: a diffeological approach”, *SIGMA Symmetry Integrability Geom. Methods Appl.* **12** (2016), 026, 19 pages.

Jordan Watts, “The differential structure of an orbifold”, *Rocky Mountain J. Math.* **47** (2017), 289–327.

Jiayong Li and Jordan Watts, “The orientation-preserving diffeomorphism group of  $S^2$  deforms to  $SO(3)$  smoothly”, *Transformation Groups (Springer)* **16** (2011), no. 2, pp. 537–553.

Tsasa Lusala, Jędrzej Śniatycki, and Jordan Watts, “Regular points of a subcartesian space”, *Canad. Math. Bull.* **53** (2010), no. 2, pp. 340–346.

### Submitted for Publication

Jordan Watts and Seth Wolbert, “The diffeological coarse moduli space of a stack”, 15 pages.

Augustin Batubenge, Patrick Iglesias-Zemmour, Yael Karshon, and Jordan Watts, “Diffeological, Frölicher, and differential spaces”, 21 pages.

### Preprints

Jordan Watts, “Symplectic quotients and representability: the circle action case”, 19 pages.

## Theses

Jordan Watts, *Diffeologies, Differential Spaces, and Symplectic Geometry*, Ph.D. Thesis, Department of Mathematics, University of Toronto, 2012, 108 pages.

Jordan Watts, *The Calculus on Subcartesian Spaces*, M.Sc. Thesis, Department of Mathematics and Statistics, University of Calgary, 2006, 116 pages.