

## James Hanson

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### CONTACT INFORMATION

UW-Madison Department of Mathematics  
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### EDUCATION

#### University of Wisconsin-Madison

PhD in Mathematics, December 2020  
MA in Physics, December 2016

#### University of Minnesota-Twin Cities

BSc in Mathematics and Physics, May 2012

### PUBLICATIONS

1. J. HANSON, *Analog Reducibility*. [www.math.wisc.edu/~jehanson2/publications/AnalogRed.pdf](http://www.math.wisc.edu/~jehanson2/publications/AnalogRed.pdf). Accepted at the Journal of Logic and Computation.
2. G. CONANT, K. GANNON, J. HANSON, *Keisler measures in the wild.* [arxiv.org/abs/2103.09137](http://arxiv.org/abs/2103.09137). Preprint.
3. J. HANSON, *Strongly Minimal Sets and Categoricity in Continuous Logic*. [arxiv.org/abs/2011.00610](http://arxiv.org/abs/2011.00610). Submitted.
4. J. HANSON, *Approximate Isomorphism of Metric Structures*. [arxiv.org/abs/2011.00588](http://arxiv.org/abs/2011.00588). Submitted.
5. J. HANSON, *Approximate Categoricity in Continuous Logic*. [arxiv.org/abs/2011.00589](http://arxiv.org/abs/2011.00589). Submitted.
6. J. HANSON, *Metric spaces are universal for bi-interpretation with metric structures*. [www.math.wisc.edu/~jehanson2/publications/MetUniv.pdf](http://www.math.wisc.edu/~jehanson2/publications/MetUniv.pdf). Submitted.
7. J. HANSON, *Indiscernible Subspaces and Minimal Wide Types*. [arxiv.org/abs/2004.03062](http://arxiv.org/abs/2004.03062). Preprint.
8. W. COTTRELL, J. HANSON, A. HASHIMOTO, A. LOVERIDGE, AND D. PETTENGILL, *Intersecting  $D3$ - $D3'$  brane system at finite temperature*. Phys. Rev. D, 95, 044022 (2017).
9. W. COTTRELL, J. HANSON, AND A. HASHIMOTO, *Dynamics of  $\mathcal{N} = 4$  supersymmetric field theories in  $2 + 1$  dimensions and their gravity dual*. J. High Energ. Phys. 2016, 12.

### TALKS

*A Versatile Counterexample for Invariant Types and Keisler Measures outside NIP*

- Séminaire de Logique Lyon-Paris (Digital). (March 2021)

Joint work with Gabriel Conant and Kyle Gannon.

*Strongly Minimal Sets in Continuous Logic* (regarding essential continuity)

- Online Logic Seminar (Digital). (August 2021)

*Definability and Categoricity in Continuous Logic*

- UW Logic Seminal (Digital), University of Wisconsin-Madison. (April 2020)

*Skolemization in Continuous Logic*

- UW Logic Seminar, University of Wisconsin-Madison. (November 2019)

*Strongly Minimal Sets in Continuous Logic* (regarding categoricity)

- Logic Seminar, University of Illinois at Chicago. (October 2019)
- AMS Sectional Meeting, Special Session on Model Theory, University of Wisconsin-Madison. (September 2019)
- Graduate Student Conference in Logic XX, University of Illinois at Chicago. (April 2019)
- UCI Logic and Set Theory Seminar, University of California, Irvine. (April 2019)
- UW Logic Seminar, University of Wisconsin-Madison. (February 2019)

*Separable and inseparable Gromov-Hausdorff categoricity in continuous logic*

- Association for Symbolic Logic North American Annual Meeting, Western Illinois University. (May 2018)
- Graduate Student Conference in Logic XIX, University of Wisconsin-Madison. (April 2018)

*Encoding metric structures as metric spaces*

- UW Logic Seminar, University of Wisconsin-Madison. (February 2018)

AWARDS

University of Wisconsin-Madison, Department of Mathematics

- *Excellence in Mathematical Research Award*, October 2019.
- *Physical Sciences Award*, October 2018.

University of Wisconsin-Madison, Department of Physics

- *Van Vleck Fellowship for Teaching Assistants*, September 2012.
- *David L. Huber Fellowship*, September 2012.
- *Firminhac Fellowship*, September 2012.

University of Minnesota

- *Professor Hans H. Dalaker Scholarship for Undergraduate Mathematics*, April 2011.
- *Presidential Scholarship*, August 2008.
- *Maroon and Gold Leadership Award*, August 2008.
- *National Merit Scholarship*, August 2008.
- *Undergraduate Research Scholarship*, August 2008.

CONFERENCE  
ORGANIZATION

I helped organize the 19th Graduate Student Conference in Logic which was held at the University of Wisconsin-Madison in April 2018.

OUTREACH

I participate the University of Wisconsin-Madison Math Department Directed Reading Program.

I volunteer for the University of Wisconsin-Madison Math Circle.

I volunteer for the Skype a Scientist program.