

Gabriel Conant

University of Notre Dame

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Employment

- 2016-present **Lumpkins Postdoctoral Fellow**, *University of Notre Dame*, Notre Dame, IN.
- 2015-2016 **Visiting Assistant Professor**, *University of Notre Dame*, Notre Dame, IN.
- 2008-2015 **Teaching Assistant**, *University of Illinois*, Chicago, IL.
- 2012-2014 **Lecturer**, *Loyola University*, Chicago, IL.

Education

- August 2015 **Ph.D. in Pure Mathematics**, *University of Illinois*, Chicago, IL.
thesis title: *Model theory and combinatorics of homogeneous metric spaces*
advisor: David Marker
- May 2010 **MS in Pure Mathematics**, *University of Illinois*, Chicago, IL.
- May 2008 **BA in Mathematics**, *Colgate University*, Hamilton, NY.

Research Interests

- Expansions of stable groups**, especially "tame" (e.g. NIP) expansions of the additive group of integers.
- Model theory of homogeneous structures**, especially Fraïssé limits and other generic structures, homogeneous metric spaces and graphs.
- Classification of unstable theories without the strict order property**, especially via dividing lines such as the strong order property hierarchy.

Papers

- G. Conant, **An axiomatic approach to free amalgamation**, to appear in the Journal of Symbolic Logic.
- G. Conant, **Forking and dividing in Henson graphs**, to appear in the Notre Dame Journal of Formal Logic.
- G. Conant, **Distance structures for generalized metric spaces**, Ann. Pure Appl. Logic **168** (2017), no. 3, 622-650.
- G. Conant, **A remark on strict independence relations**, Arch. Math. Logic **55** (2016), no. 3-4, 535-544.
- G. Conant & C. Terry, **Model theoretic properties of the Urysohn sphere**, Ann. Pure Appl. Logic **167** (2016), no. 1, 49-72.

Preprints

- Stability and sparsity in sets of natural numbers*, arXiv 1701.01387.

On the complexity of finite subgraphs of the curve graph, (with E. Bering & J. Gaster) arXiv 1609.02548.

There are no intermediate structures between the group of integers and Presburger arithmetic, arXiv 1603.00454.

Stable groups and expansions of $(\mathbb{Z}, +, 0)$, (with A. Pillay) arXiv 1601.05692.

Extending partial isometries of generalized metric spaces, arXiv 1509.04950.

Neostability in countable homogeneous metric spaces, arXiv 1504.02427.

Conference Lectures

- July 2016 **Model Theory of Finite and Pseudofinite Structures**, *University of Leeds*, Leeds, UK.
- June 2016 **Thematic Program on Model Theory**, instructor for Undergraduate Summer School, *University of Notre Dame*, Notre Dame, IN.
- April 2016 **Graduate Student Conference in Logic**, plenary speaker, *University of Notre Dame*, Notre Dame, IN.
- April 2016 **Midwest Model Theory Day**, *University of Illinois*, Chicago, IL.
- Nov. 2015 **BIRS Homogeneous Structures Workshop**, *Banff International Research Station*, Banff, AB.
- Oct. 2015 **Special Session on Model Theory**, *AMS Central Fall Sectional Meeting*, *Loyola University*, Chicago, IL.
- July 2015 **BIRS Neostability Workshop**, *Casa Matemática Oaxaca*, Oaxaca, Mexico.
- June 2015 **BLAST**, *University of North Texas*, Denton, TX.

Recent Seminars

- Oct. 2016 **Logic Seminar**, *University of Maryland*, College Park, MD.
- Oct. 2016 **Southern Wisconsin Logic Colloquium**, *University of Wisconsin*, Madison, WI.
- Sept. 2016 **UIUC Logic Seminar**, *University of Illinois*, Urbana, IL.
- Oct. 2015 **OSU Logic Seminar**, *The Ohio State University*, Columbus, OH.
- Oct. 2015 **CUNY Graduate Center Logic Seminar**, *CUNY*, New York, NY.
- Sept. 2015 **Logic Seminar**, *University of Notre Dame*, Notre Dame, IN.
- Sept. 2014 **The McMaster Model Theory Seminar**, *McMaster University*, Hamilton, Ontario.
- Sept. 2013 **UIC Logic Seminar**, *University of Illinois*, Chicago, IL.

Contributed Lectures

- Jan. 2016 **ASL Winter Meeting**, (*with Joint Mathematics Meetings*), Seattle, WA.
- March 2015 **ASL North American Annual Meeting**, *University of Illinois*, Urbana, IL.
- Jan. 2015 **AMS Session on Mathematical Logic**, *Joint Mathematics Meetings*, San Antonio, TX.

Awards

- 2014-2015 **Research Training Group Pre-doctoral Fellow**, *University of Illinois*, Chicago, IL.
- 2008 **Edwin Downie Mathematics Award**, *Colgate University*, Hamilton, NY.
- 2006 **Sisson Prize in Mathematics**, *Colgate University*, Hamilton, NY.

Academic Service and Involvement

- 2013-present **Webmaster of *forkinganddividing.com*.**
As a resource for students and researchers, I created and maintain a dynamic map of the network of definitions and dividing lines in classification theory.
- Spring 2017 **Co-organizer of AMS Special Session in Model Theory at Bloomington, IN.**
- 2014-2015 **Co-organizer of the 16th Graduate Student Conference in Logic.**
This is an annual conference intended for graduate students who want to present their thesis research and/or practice giving expository talks.
- 2013-2015 **Member of UIC chapter of the Association for Women in Mathematics.**
Our chapter sponsors events such as: panels on success in graduate school, work-life balance, and the history of women in mathematics; workshops on creating an academic website or writing a CV; and social activities for graduate students.
- 2011-2013 **Co-organizer of the UIC Louise Hay Logic Seminar.**
This is a weekly graduate student seminar for giving expository and research talks.
- Fall 2013 **Co-organizer of the UIC Model Theory Seminar.**
This is a weekly seminar usually focusing on one main topic to cover throughout the semester.
- Spring 2013 **Co-organizer of UIC Graduate Student Colloquium.**
This research seminar is intended for graduate students in all fields of mathematics, with the primary purpose of exposing students to research being done by others in their department.
- Fall 2011 **UIC Teaching Assistant Coordinator.**
Duties: observe and evaluate first-year teaching assistants, discuss evaluations and advise teaching methods throughout the semester.
- 2009-2010 **Co-president of the UIC Mathematics Graduate Student Association.**
Duties: Organize activities for faculty and students in the department, including weekly department teas and occasional social events.

Teaching Experience

- 2016-present **Lumpkins Postdoctoral Fellow, *University of Notre Dame*, Notre Dame, IN.**
MATH 20550 Calculus III, MATH 10130 Beginning Logic, MATH 10120 Finite Mathematics
- 2015-2016 **Visiting Assistant Professor, *University of Notre Dame*, Notre Dame, IN.**
MATH 20550 Calculus III, MATH 10560 Calculus II, MATH 10250 Elements of Calculus I
- 2012-2014 **Lecturer, *University of Illinois*, Chicago, IL.**
MATH 300 Writing for Mathematics, MATH 210 Calculus 3, Summer Enrichment Workshop - Math 090 Intermediate Algebra
- 2012-2014 **Lecturer, *Loyola University*, Chicago, IL.**
COMP 163 Discrete Structures
- 2008-2013 **Teaching Assistant, *University of Illinois*, Chicago, IL.**
MATH 181 Calculus 2, MATH 180 Calculus 1, MATH 160 Finite Math for Business, MATH 121 Precalculus, MATH 090 Intermediate Algebra