

# SEBASTIEN VASEY

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## Employment

- **Harvard University**—Boston  
(July 2017–June 2020 (exp)) *Benjamin Peirce fellow.*

## Education

- **Carnegie Mellon University**—Pittsburgh  
(Aug. 2012–May 2017) *Ph.D. in Mathematical Sciences (thesis advisor: Rami Grossberg).  
Thesis: Superstability and categoricity in abstract elementary classes (572 pages).*
- **Carnegie Mellon University**—Pittsburgh  
(Aug. 2011–May 2012) *Master exchange year (was the only EPFL master student selected to go).*
- **Swiss Federal Institute of Technology (EPFL)**—Lausanne  
(Sep. 2008–June 2011) *B.Sc. in “Systèmes de communication” (ranked first out of 27 students).*

## Papers

1. Sebastien Vasey, *Indiscernible extraction and Morley sequences*, *Notre Dame Journal of Formal Logic* **58** (2017), no. 1, 127–132.
2. Will Boney, Rami Grossberg, Alexei Kolesnikov, and Sebastien Vasey, *Canonical forking in AECs*, *Annals of Pure and Applied Logic* **167** (2016), no. 7, 590–613.
3. Sebastien Vasey, *Forking and superstability in tame AECs*, *The Journal of Symbolic Logic* **81** (2016), no. 1, 357–383.
4. Will Boney and Sebastien Vasey, *Tameness and frames revisited*, *The Journal of Symbolic Logic* **82** (2017), no. 3, 995–1021.
5. Sebastien Vasey, *Infinitary stability theory*, *Archive for Mathematical Logic* **55** (2016), nos. 3–4, 562–592.
6. Sebastien Vasey, *Building independence relations in abstract elementary classes*, *Annals of Pure and Applied Logic* **167** (2016), no. 11, 1029–1092.
7. Will Boney and Sebastien Vasey, *Chains of saturated models in AECs*, *Archive for Mathematical Logic* **56** (2017), no. 3, 187–213.
8. Sebastien Vasey, *Shelah’s eventual categoricity conjecture in universal classes: part I*, *Annals of Pure and Applied Logic* **168** (2017), no. 9, 1609–1642.
9. Rami Grossberg and Sebastien Vasey, *Equivalent definitions of superstability in tame abstract elementary classes*, *The Journal of Symbolic Logic* **82** (2017), no. 4, 1387–1408.
10. Monica VanDieren and Sebastien Vasey, *Symmetry in abstract elementary classes with amalgamation*, *Archive for Mathematical Logic* **56** (2017), no. 3, 423–452.
11. Sebastien Vasey, *Shelah’s eventual categoricity conjecture in tame AECs with primes*, *Mathematical Logic Quarterly* **64** (2018), nos. 1–2, 25–36.

12. Sebastien Vasey, *Building prime models in fully good abstract elementary classes*, *Mathematical Logic Quarterly* **63** (2017), nos. 3–4, 193–201.
13. Will Boney, Rami Grossberg, Michael Lieberman, Jiří Rosický, and Sebastien Vasey,  *$\mu$ -Abstract elementary classes and other generalizations*, *Journal of Pure and Applied Algebra* **220** (2016), no. 9, 3048–3066.
14. Sebastien Vasey, *Downward categoricity from a successor inside a good frame*, *Annals of Pure and Applied Logic* **168** (2017), no. 3, 651–692.
15. Will Boney and Sebastien Vasey, *A survey on tame abstract elementary classes*, *Beyond First Order Model Theory* (José Iovino ed.), CRC Press (2017), 353–427.
16. Sebastien Vasey, *Shelah’s eventual categoricity conjecture in universal classes: part II*, *Selecta Mathematica* **23** (2017), no. 2, 1469–1506.
17. Sebastien Vasey, *Saturation and solvability in abstract elementary classes with amalgamation*, *Archive for Mathematical Logic* **56** (2017), nos. 5–6, 671–690.
18. Will Boney and Sebastien Vasey, *Good frames in the Hart-Shelah example*, 26 pages. Accepted by *Archive for Mathematical Logic*.
19. Sebastien Vasey, *Toward a stability theory of tame abstract elementary classes*, 34 pages. Accepted by the *Journal of Mathematical Logic*.
20. Will Boney, Rami Grossberg, Monica VanDieren, and Sebastien Vasey, *Superstability from categoricity in abstract elementary classes*, *Annals of Pure and Applied Logic* **168** (2017), no. 7, 1383–1395.
21. Sebastien Vasey, *Quasiminimal abstract elementary classes*, *Archive for Mathematical Logic* **57** (2018), nos. 3–4, 299–315.
22. Sebastien Vasey, *On the uniqueness property of forking in abstract elementary classes*, *Mathematical Logic Quarterly* **63** (2017), no. 6, 598–604.
23. Michael Lieberman, Jiří Rosický, and Sebastien Vasey, *Universal abstract elementary classes and locally multipresentable categories*, 14 pages. Submitted.
24. Sebastien Vasey, *Tameness from two successive good frames*, 25 pages. Submitted.
25. Michael Lieberman, Jiří Rosický, and Sebastien Vasey, *Internal sizes in  $\mu$ -abstract elementary classes*, 26 pages. Submitted.
26. Saharon Shelah and Sebastien Vasey, *Abstract elementary classes stable in  $\aleph_0$* , *Annals of Pure and Applied Logic* **169** (2018), no. 7, 565–587.
27. Marcos Mazari-Armida and Sebastien Vasey, *Universal classes near  $\aleph_1$* , 12 pages. Accepted by *The Journal of Symbolic Logic*.
28. Will Boney and Sebastien Vasey, *Structural logic and abstract elementary classes with intersections*, 14 pages. Submitted.
29. Michael Lieberman, Jiří Rosický, and Sebastien Vasey, *Forking independence from the categorical point of view*, 49 pages. Submitted.
30. Nathanael Ackerman, Will Boney, and Sebastien Vasey, *Categoricity in multiuniversal classes*, 17 pages. Submitted.
31. Sebastien Vasey, *The categoricity spectrum of large abstract elementary classes*, 45 pages. Submitted.
32. Saharon Shelah and Sebastien Vasey, *Categoricity and multidimensional diagrams*, 63 pages. Submitted.

## Research visits

- (October 2017) Rutgers University - one week.
- (March 2017) Masaryk University - one week.
- (September 2016) Rutgers University - one week.
- (November 2015) Harvard University - one week.
- (October 2015) University of Illinois at Chicago - one week.

## Teaching Experience

- **Harvard University**  
(July 2017-present)
  - Sole instructor for **probability theory, model theory for abstract elementary classes**.
  - Instructor for **multivariable calculus**.
- **Carnegie Mellon University**  
(Aug. 2012-Aug. 2014, Jan. 2016-May 2017)
  - Sole instructor for **concepts of mathematics**.
  - Teaching assistant for the following courses: **concepts of mathematics** (three times), **differential and integral calculus** (twice).
  - Grader for the following courses: **set theory, basic logic**.
- **Swiss Federal Institute of Technology (EPFL)**  
(Sep. 2010-June 2011)
  - Undergraduate teaching assistant for the following courses: **discrete structures, information technology project, advanced topics in programming**.

## Honors

- (April 2017) **Guy C. Berry graduate research award**. Given annually since 2005 by the Mellon College of Science. This is the first time the prize was given to a mathematics student.
- (Sep. 2014-Dec.2015) **Doc.Mobility fellowship** from the Swiss National Science Foundation. Covered tuition and stipends for three semesters.
- (2014-2017) **Nine Association for Symbolic Logic travel grants**.
- (2008) **Gold medal at the Swiss Olympiad in Informatics**, qualified for and attended the International Olympiad in Informatics (IOI).

## Invited Talks

- ASL 2018 Winter Meeting (with JMM): **plenary talk** (January 2018).
- Seminář z algebry, Masaryk University (March 2017).
- Northeast Regional Model Theory Day, New York City (March 2017).
- Cornell Logic Seminar (March 2016).
- Rutgers Logic Seminar (December 2015).

- Harvard Logic Colloquium (November 2015).
- University of Illinois at Chicago Logic Seminar (October 2015).
- 2015 JMM: special session on beyond first order model theory (January 2015).
- Miniconference on beyond first order before the 2015 JMM (January 2015).
- University of Maryland Logic Seminar (November 2014).
- City University of New York Model Theory Seminar (October 2014).
- NIMS, S. Korea Classification Theory Workshop (August 2014).

## Contributed Talks

- Snapshots of Math at Harvard (April 2018).
- ASL 2017 Annual North American meeting (March 2017).
- Workshop on set-theoretical aspects of the model theory of strong logics, CRM Barcelona (September 2016).
- Logic Colloquium 2016 (August 2016).
- ASL 2016 Annual North American meeting (May 2016).
- ASL 2015 Annual North American meeting (March 2015).
- Logic Colloquium 2014 (July 2014).
- Madison Graduate Student Conference in Logic (April 2014).
- Two talks at the Harvard University Logic Seminar.
- Seven series of talks at the Carnegie Mellon University Model Theory Seminar.
- One talk at the Carnegie Mellon University Logic Seminar.
- Seven talks at the Carnegie Mellon University Graduate Student Seminar.
- One talk at the Harvard University undergraduate colloquium (“math table”).
- One talk at the Carnegie Mellon University Math club.

## Languages

- **French** (native), **English** (advanced), **German** (intermediate).

## Service

- Serving on the following committees at Harvard: **Intensive undergraduate advising** (Fall 2017-present), **Graduate qualifying exam** (Spring 2018).
- Referee for Acta Analytica, the Israel Journal of Mathematics, the Journal of Mathematical Logic, Logical Methods in Computer Science, and Mathematical Logic Quarterly.
- Reviewer for Mathematical Reviews and zbMATH.
- Contributor for the “Solved and unsolved problems” section of the Newsletter of the European Mathematical Society.

## Memberships

- (2012-present) Association for Symbolic Logic.
- (2012-present) American Mathematical Society.

Last updated on June 4, 2018.