

# Curriculum vitae. July 2009.

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## Professional preparation

M.A. in Mathematics, Brandeis University, February 2000

Ph.D. in Mathematics, Yale University, May 2005

Member of the School of Mathematics, Institute for Advanced Study,  
September 2005 - June 2006

L.E. Dickson Instructor, Department of Mathematics, University of Chicago,  
August 2006 - August 2007

## Appointments

Assistant Professor, Department of Mathematics, University of Virginia,  
August 2007 - present

## Publications

1. On distortion of subsemigroups, *Moscow University Bulletin* 1999, no. 4, 36-38
2. New just-infinite pro- $p$  groups of finite width and subgroups of the Nottingham group, *Journal of Algebra* 2004, no. 275(1), 419-449
3. The Nottingham group is finitely presented, *Journal of the London Mathematical Society* 2005, no. 71(2), 362-378
4. On subgroups of the Nottingham group of positive Hausdorff dimension, *Communications in Algebra* 2007, no. 35(1), 193-206
5. Finite presentability of  $SL_1(D)$ , *Israel Journal of Mathematics* 2007, no. 158, 297-347
6. Abstract simplicity of complete Kac-Moody groups over finite fields, with Lisa Carbone and Gordon Ritter, *Journal of Pure and Applied Algebra* 2008, no. 212(10), 2147-2162
7. Golod-Shafarevich groups with property  $(T)$  and Kac-Moody groups, *Duke Mathematical Journal* 2008, no. 145(2), 309-339

8. On the commensurator of the Nottingham group, *accepted by Transactions of AMS*, available at <http://people.virginia.edu/~mve2x/Research>, 18 pages

9. Abstract commensurators of profinite groups, with Yiftach Barnea and Thomas Weigel, *submitted*, arXiv: 0810.2060, 37 pages

10. Property  $(T)$  for noncommutative universal lattices, with Andrei Jaikin-Zapirain, *submitted*, arXiv: 0809.4095, 47 pages

11. On the second cohomology of the norm one group of a  $p$ -adic division algebra, *preprint*, available at <http://people.virginia.edu/~mve2x/Research>, 33 pages

12. Kazhdan quotients of Golod-Shafarevich groups, with an appendix ‘Uniform non-amenability of Golod-Shafarevich groups’ by Mikhail Ershov and Andrei Jaikin-Zapirain and an appendix ‘On subgroup growth of Golod-Shafarevich groups’ by Andrei Jaikin-Zapirain, *preprint*, available at <http://people.virginia.edu/~mve2x/Research>, 33 pages

### **Selected recent talks**

*Groups defined by a small set of relators*, Colloquium, Rutgers University, April 2009

*Kazhdan quotients of Golod-Shafarevich groups*,

Algebra Seminar, Oxford University, June 2009,

Algebra Colloquium, Imperial College, London, June 2009

Conference on “Geometric and asymptotic group theory with applications,” Stevens Institute of Technology, March 2009

*Property  $(T)$  for elementary linear groups over associative rings*,

Algebra and Lie groups seminar, Yale University, March 2009,

Topology and geometric group theory seminar, Cornell University, December 2008

*Golod-Shafarevich groups with property  $(T)$  and Kac-Moody groups*, Conference on “Expanders in Pure and Applied Mathematics,” Institute for Pure & Applied Mathematics at UCLA, February 2008

### **Synergistic activities**

Reviewer for Mathematical Reviews (2004)

Referee for Journal of Algebra, Journal of Topology and Analysis

Organizer of the Algebra Seminar at the University of Virginia, Fall 2008 - present

Co-organizer of the special session on “Arithmetic and profinite groups” at the AMS sectional meeting at the Pennsylvania State University, October 2009

Member of the Graduate Admission Committee, Department of Mathematics, University of Virginia, 2008-2009

**Collaborators:** Yiftach Barnea (Royal Holloway, University of London), Lisa Carbone (Rutgers University), Andrei Jaikin-Zapirain (Universidad Autonoma de Madrid), Gordon Ritter, Thomas Weigel (Universita' di Milano-Bicocca).

**Ph.D. Advisors:** Efim Zelmanov, University of California San Diego and Gregory Margulis, Yale University

**Postdoctoral Advisor:** Alex Lubotzky, Hebrew University of Jerusalem