

A.S. RAPINCHUK

Curriculum Vitae

FULL NAME: Rapinchuk Andrei Stepanovich  
DATE OF BIRTH: August 2, 1960  
PLACE OF BIRTH: Minsk, Belarus (former USSR)  
MAILING ADDRESS: Department of Mathematics  
University of Virginia  
Kerchof Hall, P.O. Box 400137  
Charlottesville VA 22904-4137, USA  
E-MAIL: asr3x@virginia.edu

EMPLOYMENT

2005 (fall) - Institute for Advanced Study (Princeton), member  
2000-pr. - Full Professor, University of Virginia (Charlottesville, USA)  
1996-00 - Associate Professor, University of Virginia (Charlottesville, USA)  
1995-96 - Visiting Professor, University of Virginia (Charlottesville, USA)  
1994-95 - Research Fellow at the University of Bielefeld (Germany) sponsored by the Alexander von Humboldt Foundation  
1992-94 - Visiting Associate Professor, University of Michigan (Ann Arbor, USA)  
1992 - Full Professor at the Byelorussian State University (Minsk, Belarus; 0.25 fraction)  
1983-91 - Associate Professor at the Byelorussian State University (Minsk, Belarus; 0.25 fraction)  
1991-95 - Leading Research Fellow, Institute of Mathematics, Academy of Sciences of Belarus (Minsk, Belarus)  
1985-91 - Senior Research Fellow, Institute of Mathematics, Academy of Sciences of Belarus (Minsk, Belarus)  
1980-85 - Junior Research Fellow, Institute of Mathematics, Academy of Sciences of Belarus (Minsk, Belarus)

## DEGREES AND AWARDS

- 1980 - Master Degree (with honors), Byelorussian State University (Minsk, former USSR)
- 1982 - Candidate Degree (Ph.D. in the former USSR) Thesis “The number of classes in the genus and algebraic groups” (adviser - V.P. Platonov) Presented to the Institute of Mathematics of the Academy of Sciences of the BSSR (Minsk)
- 1984 - Prize of the League of Young Researchers of Belarus for a series of papers on the class number of algebraic groups
- 1989 - Prize of the Department of Mathematics of the Academy of Sciences of the USSR for a series of papers on the congruence subgroup problem for algebraic groups
- 1990 - Diploma of a Senior Research Associate. Awarded by the Presidium of the Academy of Sciences of the USSR
- 1990 - Doctorate Degree (second Ph.D. in the former USSR, equivalent to Habilitation in Germany). Thesis “The congruence subgroup problem for algebraic groups”. Presented to the Institute of Mathematics of the Academy of Sciences of the BSSR (Minsk). Degree conferred by the Highest Certification Commission of the USSR
- 1994 - Humboldt Fellowship for 1994/95 awarded by the Alexander von Humboldt Foundation (Bonn, Germany)
- 1995 - Grant from the International Science (Soros) Foundation
- 1997 - NSF grant DMS-9700474 for 1997-99
- 1998 - Grant from the BSF USA-Israel for 1998-2001 (with M. Aschbacher, G. Prasad, Y. Segev and G. Seitz)
- 1999 - NSF grant DMS-9970148 for 1999-2002
- 2001 - Grant from the BSF USA-Israel for 2001-2004 (with G. Prasad, Y. Segev and G. Seitz)
- 2002 - NSF grant DMS-0138315 for 2002-2005
- 2003 - Humboldt Senior Research Award, awarded by the Alexander von Humboldt Foundation (Bonn, Germany)
- 2004 - Grant from BSF USA-Israel for 2005-2008 (with G. Prasad, Y. Segev and L. Rowen)
- 2005 - NSF grant DMS-0502120 for 2005-2010

## INVITED TALKS

1. Talk “On some biregular automorphism of the underlying varieties of algebraic groups” All-Union Student’s Research Conference (Novosibirsk, former USSR, 1980)
2. Talk “Class numbers of quadratic forms and algebraic groups” All-Union Algebraic Conference (Leningrad, former USSR, 1981)
3. Short communication “Class numbers of algebraic groups” ICM-83 (Warsaw, Poland, 1983)
4. Talk “Normal subgroup structure of  $SL(1, D)$  and the Hasse norm principle” All-Union Algebraic Conference (Minsk, former USSR, September 1983)

5. Plenary talk “Metaplectic kernel for some anisotropic groups” All-Union Algebraic Conference (Kishenev, former USSR, September 1985)
6. Talk “The congruence subgroup problem for algebraic groups” Algebraic Semester in the Banach Center (Warsaw, Poland, May 1988)
7. Talk “The congruence subgroup and metaplectic problems for algebraic groups” International conference on “Automorphic Forms and Their Applications” (Khabarovsk, former USSR, June 1988)
8. Talk “The congruence subgroup problem for algebraic groups and strong approximation in affine varieties” Soviet-Indian Symposium “Algebraic groups and Lie Algebras” (Alma-Ata, former USSR, April 1989)
9. A set of talks (3) on “Arithmetic groups” Symposium on Group Theory (Omsk, former USSR, September 1990)
10. Talk “Groups with bounded generation in algebra and arithmetic” Indo-Soviet conference on “Geometry” (Bombay, India, January 1991)
11. A set of talks (3) on the multiplicative structure of division algebras over number fields (Tata Institute of Fundamental Research, Bombay, India, January 1991)
12. Talk “Normal subgroup structure of the groups of rational points of algebraic groups over number fields” Soviet-American Symposium “Algebraic Groups and Related Number Theory” (Minsk, former USSR, May 1991)
13. One of the main one-hour lectures “The congruence subgroup problem for algebraic groups: old and new” Conference “Journées Arithmétiques - 91” (Geneva, Switzerland, September 1991)
14. Seminar talk “The congruence subgroup property for arithmetic groups with bounded generation” (University of Bielefeld, June 1992)
15. Seminar talk “Groups with bounded generation” (University of Michigan, October 1992)
16. Talk “Representation varieties for the fundamental groups of compact orientable surfaces” Workshop “Varieties of Representations of Finitely Generated Groups and Platonov’s Conjecture” (University of Oklahoma, Norman, December 1992)
17. A set of talks (3) on “The congruence subgroup problem” (University of Chicago, March 1993)
18. Seminar talk “Geometric representation theory for the fundamental groups of compact orientable surfaces” (University of Chicago, March 1993)
19. Seminar talk “The congruence subgroup problem for algebraic groups” (Princeton University, May 1993)
20. Seminar talk “Representation varieties of finitely generated groups” (University of Michigan, March 1994)
21. Colloquium talk “Computation of the metaplectic kernel” (University of Bielefeld, Germany, January 1995)
22. Talk “Metaplectic kernel for algebraic groups over global fields” Conference on “Algebraic Groups” (Oberwolfach, Germany, April 1995)
23. Colloquium talk “Representation varieties of finitely generated groups” (University of Eichstätt, Germany, May 1995)

24. Talk “The normal subgroup structure of  $SL(1, D)$  and the classification of finite simple groups” Special Group Theory Session of the Joint AMS–IMU Meeting (Jerusalem, Israel, June 1995)
25. Talk “Computation of the metaplectic kernel” Workshop “Discrete Subgroups of Lie Groups” (Hebrew University of Jerusalem, Israel, June 1995)
26. Talk “Some rationality problems for the representation varieties of finitely generated groups” Euroconference “Linear Algebraic Groups and Related Structures” (Bielefeld, Germany, July 1995)
27. Colloquium talk “The congruence subgroup and metaplectic problems” (University of Geneva, Switzerland, November 1995)
28. Seminar talk “Representation varieties for the fundamental groups of compact orientable surfaces” (University of Geneva, Switzerland, November 1995)
29. Seminar talk “Computation of the metaplectic kernel” (Ohio-state University, January 1996)
30. Special talk “Geometric representation theory” (Ohio-state University, January 1996)
31. Colloquium talk “Representation varieties of finitely generated groups” (University of Virginia, February 1996)
32. Seminar talk “Representation rigidity of finitely generated groups” (Yale University, April 1997)
33. Talk “The congruence subgroup problem” Conference dedicated to the 65-th birthday of Hyman Bass (Columbia University, November 1997)
34. Seminar talk “The congruence subgroup and metaplectic problems for algebraic groups” (ETH Zürich, Switzerland, November 1998)
35. Colloquium talk “Normal subgroups of the multiplicative group of a division algebra” (Yale University, October 1999)
36. Seminar talk “Strong approximation in tori and the congruence subgroup problem” (Yale University, October 1999)
37. Colloquium talk “Normal subgroups of the multiplicative group of a division algebra” (Columbia University, December 1999)
38. Talk “Normal subgroups of the multiplicative group of a finite dimensional division algebra, and valuations,” Special session on Reductive Groups, Joint India-AMS Meeting (Bangalore, December 2003)
39. Talk “Normal subgroups of the multiplicative group of a division algebra, and valuations,” Workshop “Linear Algebraic Groups and Quadratic Forms (Eilat, Israel, February 2004)
40. Colloquium talk “Normal subgroups of the multiplicative group of a division algebra, and valuations,” Yale University, February 2005
41. Two special lectures on the congruence subgroup problem, Yale University, February 2005
42. Talk “On centrality of the congruence kernel,” Special Session on “Arithmetic Groups and Related Topics,” AMS meeting in Delaware, April 2005
43. Talk “The congruence subgroup problem,” New York Group Theory Seminar, CUNY - Graduate Center, December 2005
44. Talk “Normal subgroups of the multiplicative group of a finite dimensional division algebra, and valuations,” Institute for Advanced Study, December 2005
45. Talk “ $p$ -adique techniques in the theory of real Lie groups,” Lie group seminar, Rutgers University, October, 2006

46. Talk “Normal subgroups of the multiplicative group of a finite dimensional division algebra, and valuations,” University of Bielefeld, July 2007
47. Talk “Weakly commensurable arithmetic subgroups, lengths of closed geodesics and isospectral locally symmetric spaces,” Conference in honor of E.B. Vinberg, Bielefeld, July 2007
48. Talk “Normal subgroups of the multiplicative group of a finite dimensional division algebra, and valuations,” Algebra seminar, University of Cambridge, November 2007
49. Talk “Local-global principles for embeddings of fields into simple algebras,” Workshop “Lie groups, algebraic groups and transformation groups,” Bielefeld, July 2008
50. Plenary talk “Weakly commensurable arithmetic subgroups, lengths of closed geodesics and isospectral locally symmetric spaces,” XX Escola de Algebra, Rio de Janeiro (Brazil), August 2008
51. Talk “ $p$ -adic techniques in the theory of Lie groups and differential geometry,” Conference on Profinite Groups, E. Schrödinger Institute, Vienna, December 2008
52. Talk “On almost 1-generation of the congruence kernel,” Conference on Profinite Groups, E. Schrödinger Institute, Vienna, December 2008
53. Talk “Weakly commensurable arithmetic groups, with applications to locally symmetric spaces,” Special session on Group Actions and Homogeneous Spaces, AMS Annual meeting in Washington, DC, January 2009

#### GRADUATE STUDENTS

Alexander Potapchik (PhD 1995, University of Bielefeld), Andrew Booker (M.Sc. 1998, University of Virginia), Igor Erovenko (PhD 2002, University of Virginia), Chiru Bhattacharya (PhD 2003, University of Virginia), Brian Kapp (PhD 2008, University of Virginia) Current students: Achileas Pitsillides, Tim Woodcock (both are expected to graduate in May 2009).

#### ADMINISTRATIVE DUTIES AT UVA

- 1996-97 - member of the Putnam Mathematical Competition committee of the Department
- 1997-99 - chair of the colloquium committee of the Department
- 1998-01 - member of the hiring committee, equal opportunity officer of the Department
- 1998 - member of the *ad hoc* committee searching for a new chairman of the Department
- 2002-03 - member of the committee on revision of the graduate program
- 2003 - chair of the *ad hoc* committee for promotion of Peter Abramenko
- 2006 - chair of the *ad hoc* committee for 3rd year review of Kai-Uwe Bux
- 2007-08 - member of the Steering Committee of the department, chair of the Lower Division Undergraduate Committee
- 2008-09 - member of the Steering Committee of the department, chair of the Lower Division Undergraduate Committee, chair of the *ad hoc* committee for promotion of Peter Abramenko

## COURSES TAUGHT

- 2008-09 - Fall: Bilinear Forms and Group Representations, Honors Calculus III; Spring: Algebraic Number Theory, Honors Calculus IV
- 2007-08 - Fall: Algebraic Number Theory, Honors Calculus III; Spring: Algebra IV: Brauer Group and Group Cohomology
- 2006-07 - Fall: Galois Theory, Honors Calculus III; Spring: Modular Forms
- 2005-06 - Fall: Research leave, Spring: Complex Variable, Elliptic Curves
- 2004-05 - Fall: Advanced Linear Algebra, Honors Calculus III, Calculus III (course coordinator); Spring: Research leave
- 2003-04 - Fall: Advanced Linear Algebra; Spring: Undergraduate Algebra II, Calculus III (course coordinator)
- 2002-03 - Fall: Calculus II (course coordinator), Graduate Algebra III; Spring: Quadratic forms
- 2001-02 - Fall: on leave; Spring: Multivariable Calculus (course coordinator), Graduate Algebra IV
- 2000-01 - Fall: Calculus I (course coordinator), Algebraic K-theory, Algebra seminar; Spring: Arithmetic groups
- 1999-00 - Fall: Calculus I, Graduate Algebra III; Spring: Quadratic Forms, Algebra seminar
- 1998-99 - Fall: Calculus I (course coordinator), Graduate Algebra I; Spring: Linear Algebra, Graduate Algebra II
- 1997-98 - Fall: Calculus I (course coordinator), Algebraic geometry; Spring: Calculus I (course coordinator), Algebraic groups
- 1996-97 - Fall: Calculus I, Graduate Algebra III; Spring: Calculus I (course coordinator), Classical groups
- 1995-96 - Fall: Calculus I & II; Spring: Undergraduate Algebra II, Kazhdan Groups and Their Applications
- 1994-95 - Seminar "Kazhdan Groups and Expanders"
- 1993-94 - Fall: Calculus II (2 sections); Spring: Calculus II, Linear Algebra
- 1992-93 - Fall: Calculus II (2 sections); Spring: Calculus II, Algebraic Geometry (theory of schemes)
- 1991-92 - Undergraduate Algebra I
- 1990-91 - Group Theory, Field Theory
- 1989-90 - Undergraduate Algebra II
- 1988-89 - Undergraduate Algebra I
- 1987-88 - Group Theory, Field Theory
- 1985-86 - Algebraic Geometry
- 1984-85 - Local Class Field Theory
- 1983-84 - Number Theory, Differential Geometry