

# Curriculum Vitae of Adrian Vasiu

## Residency

U.S.A. Citizen  
Romanian Citizen

## Chronology of education

9/88–7/91 B.A., Mathematics, Babeş-Bolyai University, Cluj–Napoca, Romania

9/91–6/94 Ph.D., Mathematics, Princeton University, Princeton, U.S.A.

Date awarded: Nov. 5, 1994

Thesis title: “Integral canonical models for Shimura varieties of Hodge type”

Advisor: Prof. Gerd Faltings

Major field: Arithmetic Algebraic Geometry

## Chronology of employment

9/91–8/92 Fellowship for graduate studies, Princeton University, Princeton, U.S.A.

9/92–6/94 Teaching Assistant, Princeton University, Princeton, U.S.A.

9/94–8/95 Visiting Research Position at Max–Planck Institute for Mathematics, Bonn, Germany (scientific supervisor: Prof. G. Faltings)

9/95–9/96 Visiting Research Position at the Institute for Mathematics, ETH–Zürich, Switzerland (scientific supervisor: Prof. G. Wüstholz)

7/96–6/99 Morrey Assistant Professor of Mathematics, University of California, Berkeley, U.S.A.

7/99–6/00 Visiting Assistant Professor of Mathematics, University of Utah, Salt Lake City, U.S.A.

7/00–6/07 Tenure-Track, Assistant Professor of Mathematics, University of Arizona, Tucson, U.S.A.

7/07– 8/08 Visiting Assistant Professor of Mathematics, Binghamton University, SUNY, Binghamton, U.S.A.

9/08–8/11 Tenure, Associate Professor of Mathematics, Binghamton University, SUNY, Binghamton, U.S.A.

9/11–onwards Tenure, Professor of Mathematics, Binghamton University, SUNY, Binghamton, U.S.A.

## Honors and awards

May 1987 First prize medalist, special prize for the generalization of a problem, and winner of the 5<sup>th</sup> Balcanic Olympiad in Mathematics, Athens, Greece

July 1987 Gold medalist and winner of the 28<sup>th</sup> International Olympiad in Mathematics, Havana, Cuba

May 1988 First prize medalist and winner of the 6<sup>th</sup> Balcanic Olympiad in Mathematics, Nicosia, Cyprus

July 1988 Gold medalist and winner of the 29<sup>th</sup> International Olympiad in Mathematics, Canberra, Australia

## Fellowships, Scholarships Awards, and Visits

Aug–Sep 1990	Fellowship from Matsumae International Foundation and Tokai University, Tokyo, Japan (to visit the ICM 90 in Kyoto)
13 June– 19 June 2001	Scholarship from Max–Planck Institute for Mathematics, Bonn, Germany (invitation to attend 2001 Arbeitsagung)
10 June– 17 June 2005	Scholarship from Max–Planck Institute for Mathematics, Bonn, Germany (invitation to attend 2005 Arbeitsagung)
4 April– 4 May 2007	Invitation from Bielefeld University, Germany to spend one month and to give a series of lectures (host Prof. Thomas Zink)
11 May– 11 Aug 2007	Scholarship from Max–Planck Inst. for Mathematics, Bonn, Germany
12 Dec– 19 Dec 2007	Invitation from Indiana University to spend one week (host Prof. Michael Larsen)
6 May– 5 June 2008	Invitation from Northwestern University to spend one month (host Prof. Kari Vilonen)
11 June– 16 July 2008	Invitation from Bielefeld University, Germany to spend five weeks (host Prof. Thomas Zink)
3 Aug– 9 Aug 2008	Invitation to attend the workshop on “Arithmetic Algebraic Geometry”, Math. Forschungsinstitut Oberwolfach, Oberwolfach-Walke, Germany
25 Nov– 11 Dec 2008	Invitation to give lectures during the Special p-adic Semester, Tata Institute of Fundamental Research (TIFR), Mumbai, India
1 June– 2 July 2009	Invitation from Bielefeld University, Germany to spend one month (host Prof. Thomas Zink)
9 Aug– 13 Aug 2009	Invitation from IHES, Bures-sur-Yvette, France (host Prof. Ofer Gabber)
18 Sep– 12 Dec 2011	Fellowship from IAS, Princeton, NJ, USA
14 Dec– 31 Dec 2011	Invitation to visit Tata Institute of Fundamental Research (TIFR), Mumbai, India
3 June to 8 June 2012	Invitation to attend the workshop on “Arithmetic geometry of orthogonal and unitary Shimura varieties”, Banff International Research Station for Mathematical Innovation and Discovery (BIRS), Banff, Alberta, Canada
5 Aug– 11 Aug 2012	Invitation to attend the workshop on “Arithmetic Algebraic Geometry”, Math. Forschungsinstitut Oberwolfach, Oberwolfach-Walke, Germany

## Publications

### Papers as a Student

0. *An approach of the convex spaces by categorical methods*, pp. 8–16, The Itinerant Sem. on Functional Equations, Approximation and Convexity, Babeş–Bolyai Univ., 1990
1. *On the category of  $S$ -groups*, Seminar on Geometry, pp. 97–104, Preprint, **91-2**, Babeş–Bolyai Univ., Cluj-Napoca, 1991
2. *Some anchors of a pappusian projective plane* (joint work with Angela Vasiu), Sc. Univ. Tokyo Journal Math. **29** (1993), no. 2, pp. 193–196
3. *Bolyai invites us to more wisdom, to our awakening* (joint work with Angela Vasiu), Proceedings of Symposium in Geometry (Cluj-Napoca and Tirgu Mureş, 1992), pp. 209–216, Preprint, **93-2**, Babeş–Bolyai Univ., Cluj-Napoca, 1993

## Papers as a Post-doc

4. *Integral canonical models of Shimura varieties of preabelian type*, Asian J. Math. **3** (1999), no. 2, pp. 401–518
5. *Surjectivity criteria for  $p$ -adic representations, Part I*, Manuscripta Math. **112** (2003), no. 3, pp. 325–355
6. *A purity theorem for abelian schemes*, Michigan Math. J. **52** (2004), no. 1, pp. 71–82
7. *Surjectivity Criteria for  $p$ -adic Representations, Part II*, Manuscripta Math. **114** (2004), no. 4, pp. 399–422
8. *On two theorems for flat, affine groups schemes over a discrete valuation ring*, Centr. Eur. J. Math. **3** (2005), no. 1, pp. 14–25
9. *Unipotent, normal subgroup schemes of reductive groups*, C. R. Acad. Sci. Paris, Ser. I **341** (2005), no. 2, pp. 79–84
10. *Crystalline Boundedness Principle*, Ann. Sci. l'École Norm. Sup. **39** (2006), no. 2, pp. 245–300
11. *Traverso's isogeny conjecture for  $p$ -divisible groups* (joint work with Marc-Hubert Nicole), Rend. Semin. Mat. J. Univ. Padova **118** (2007), pp. 73–83
12. *Projective integral models of Shimura varieties of Hodge type with compact factors*, J. Reine Angew. Math. **618** (2008), pp. 51–75
13. *Minimal truncations of supersingular  $p$ -divisible groups* (joint work with Marc-Hubert Nicole), Indiana Univ. Math. J. **56** (2007), no. 6, pp. 2887–2897
14. *Level  $m$  stratifications of versal deformations of  $p$ -divisible groups*, J. Alg. Geom. **17** (2008), no. 4, pp. 599–641
15. *Integral canonical models of unitary Shimura varieties*, Asian J. Math. **12** (2008), no. 2, pp. 151–176
16. *Some cases of the Mumford–Tate Conjecture and Shimura Varieties*, Indiana Univ. Math. J. **57** (2008), no. 1, pp. 1–75
17. *Geometry of Shimura varieties of Hodge type over finite fields*, Proceedings of the NATO Advanced Study Institute on *Higher dimensional geometry over finite fields*, Göttingen, Germany, June 25 - July 06 2007, pp. 197–243, IOS Press, 2008
18. *On the Tate and Langlands–Rapoport conjectures for Shimura varieties*, Oberwolfach Reports **5** (2008), no. 3, pp. 2015–2018, Report No. 35/2008, Arithmetic Algebraic Geometry Workshop (organized by G. Faltings, J. de Jong, R. Pink), Mathematisches Forschungsinstitut Oberwolfach, Germany, August 3–8, 2008
19. *Reconstructing  $p$ -divisible groups from their truncations of small level*, Comment. Math. Helv. **85** (2010), no. 1, pp. 165–202
20. *Breuil's classification of  $p$ -divisible groups over regular local rings of arbitrary dimension* (joint work with Thomas Zink), Advanced Studies in Pure Mathematics **58** (2010), pp. 461–479, Proceeding of Algebraic and Arithmetic Structures of Moduli Spaces, Hokkaido University, Sapporo, Japan, 2007
21. *Mod  $p$  classification of Shimura  $F$ -crystals*, Math. Nachr. **283** (2010), no. 8, pp. 1–46
22. *Purity of level  $m$  stratifications* (joint work with Marc-Hubert Nicole and Torsten Wedhorn), Ann. Sci. Éc. Norm. Sup. **43** (2010), no. 6, pp. 925–955
23. *Purity results for  $p$ -divisible groups and abelian schemes over regular bases of mixed characteristic* (joint work with Thomas Zink), Doc. Math. **15** (2010), pp. 571–599
24. *Deformation subspaces of  $p$ -divisible groups as formal Lie group structures associated to  $p$ -divisible groups*, J. Alg. Geom. **20** (2011), no. 1, pp. 1–45
25. *Manin problems for Shimura varieties of Hodge type*, J. Ramanujan Math. Soc. **26** (2011), no. 1, 31–84
26. *A motivic conjecture of Milne*, 60 pages, to appear in J. Reine Angew. Math.

### Papers Submitted for Publication or available as preprints

27. *Generalized Serre–Tate Ordinary Theory*, 192 pages
28. *Extension theorems for reductive group schemes*, 30 pages
29. *Integral models in mixed characteristic  $(0,2)$  of hermitian orthogonal Shimura varieties of PEL type, Part I*, 43 pages
30. *Stratifications of Newton polygon strata and Traverso’s conjectures for  $p$ -divisible groups* (joint work with Marc-Hubert Nicole and Eike Lau), December 2009
31. *Good reductions of Shimura varieties of Hodge type in arbitrary unramified mixed characteristic, Part I*, 48 pages, available as a preprint of Max-Planck Inst. for Mathematics, Bonn, Germany as well as at <http://www.arxiv.org/abs/0707.1668>
32. *CM-lifts of Isogeny Classes of Shimura  $F$ -crystals over Finite Fields*, 71 pages, preprint from MPI, Bonn, July 12, 2007
33. *Integral models in mixed characteristic  $(0,2)$  of hermitian orthogonal Shimura varieties of PEL type, Part II*, 23 pages, available as math.NT/0606698 at [www.arxiv.org](http://www.arxiv.org)
34. *Good reductions of Shimura varieties of Hodge type in arbitrary unramified mixed characteristic, Part II*, 33 pages, December 11, 2007, available in the archive and at <http://www.math.binghamton.edu/adrian>
35. *Dimensions of group schemes of automorphisms of truncated Barsotti–Tate groups* (joint work with Ofer Gabber), 50 pages
36. *Boundedness results for finite flat group schemes over discrete valuation rings of mixed characteristic* (joint work with Thomas Zink), 28 pages
37. *Three methods to prove the existence of integral canonical models of Shimura varieties of Hodge type*, 15 pages
38. *On the Tate and Langlands–Rapoport conjectures for special fibres of integral canonical models of Shimura varieties of abelian type*, 49 pages
39. *Moduli schemes and the Shafarevich conjecture (the arithmetic case) for pseudo-polarized  $K3$  surfaces*, available at <http://math.binghamton.edu/adrian/vasiuJAMS.ps>

### Work in Progress

#### Research Papers in Progress

40. *Faltings–Fontaine categories*, book to split part of the 595 pages manuscript math.NT/0104152 that is available at <http://arxiv.org/abs/math/0104152>
41. *Stratifications of special fibres of good integral models of Shimura varieties of Hodge type*, monograph
42. *Shimura varieties and the Mumford–Tate conjecture, Part II*, first announcement (4 pages) available at <http://math.arizona.edu/adrian/mt2.ps>
43. *Automorphic vector bundles on integral models of Shimura varieties of Hodge type*
44. *Arithmetics of classes of polarized projective varieties: examples, results, and problems*

### Collaborators

- Marc-Hubert Nicole, Inst. Math. de Luminy, Univ. Aix-Marseille II, Marseille, France (three joint papers and one manuscript).
- Thomas Zink, Bielefeld University, Germany (two joint papers and one manuscript).
- Torsten Wedhorn, Paderborn University, Germany (one joint paper).
- Ofer Gabber, IHES, Bures-sur-Yvette, France (one manuscript).
- Eike Lau, Bielefeld University, Germany (one manuscript).

## Books on Educational, Philosophical, and Foundational Aspects of Mathematics

1. *The fundamentals of natural integration in life*, Dokia Publishing House Ltd., Romanian language, ISBN 973-9074-57-X, 1998, pp. 1–232 (in collaboration with Angela Vasiu)
2. *Geometry for a formative teaching*, Dokia Publishing House Ltd., Romanian language, ISBN 973-9074-46-4, 1998, pp. 1–236 (in collaboration with Angela Vasiu)
3. *Projective geometry*, Dokia Publishing House Ltd., Romanian language, ISBN 973-9074-54-5, 1998, pp. 1–184 (in collaboration with Angela Vasiu)
4. *The fundamentals of geometry*, part II, Romanian language, Univ. Babeş–Bolyai, Cluj–Napoca, 2000, pp. 1–129 (in collaboration with Angela Vasiu)
5. *The inner geometry*, Romanian language, Editura Albastra, ISBN 973-650-016-0, 2001, pp. 1–94 (in collaboration with Angela Vasiu)
6. *Projective plane transformations*, Romanian language, Editura Mega, ISBN 973-86505-4-2, 2003, pp. 1–100 (in collaboration with Angela Vasiu)
7. *Sacred mathematics*, Romanian language, Editura Nereamia Napocae, ISBN 973-7951-19-0, 2003, pp. 1–71 (in collaboration with Angela Vasiu)

## National/International outreach

Together with Minhyong Kim and Kirti Joshi, we organized a special session on *Arithmetical Algebraic Geometry* during The Joint Mathematics Meetings of the American Mathematical Society, Phoenix, 7-10 January, 2004.

In 2004 I refereed a paper for the proceedings of a conference on “Geometric methods in algebra and number theory” (it appeared in the Progress in Math. Series **235**, Birkhäuser).

In 2007 I refereed a paper for “Manin Festschrift”.

In 2008 I refereed a paper for Moscow Math. J and reviewed two papers for AMS.

In 2009 I reviewed a book for Princeton University Press and eight papers for AMS.

In 2010 I refereed a paper for New York J. Math. and another one for Doc. Math. In 2010 I also reviewed three papers for AMS and wrote an external review for promotion to the full Professor level.

Together with Ravi Ramakrishna, Thomas Tucker, and Hui June Zhu, we organized the conference *Upstate New York Number Theory Conference*, Cornell University, April 29–May 1, 2011. The conference was supported by NSF and by Cornell University.

## Graduate Students

- Xiao Xiao, completed his Ph.D. in April 2011.
- Ding Ding, to complete his Ph.D. Thesis by June 2012.
- Jinghao Li, to complete his Ph.D. Thesis by June 2013.
- Michael Fink, to complete his Ph.D. Thesis by June 2014.
- Daniel Williams, to complete his Ph.D. Thesis by June 2015.

## Scholarly Presentations

### Local Seminars

“Integral canonical models of Shimura varieties of preabelian type”:

06/08/95 Max-Planck Institute, Bonn, Germany  
12/08/95 ETH, Zürich  
10/09/96 Univ. of California at Berkeley  
“Points of integral canonical models of Shimura varieties of preabelian type”:  
12/15/95 ETH, Zürich  
11/20/96 Univ. of California at Berkeley  
“Shimura  $\sigma$ -crystals”:  
11/22/96 Univ. of California at Berkeley  
“A conjecture of Milne (and its applications)”:  
05/07/97 Univ. of California at Berkeley  
09/23/03 Univ. of Arizona (Part I)  
09/30/03 Univ. of Arizona (Part II)  
“The canonical Lie stratification and the integral Manin problem”:  
10/15/97 Univ. of California at Berkeley  
“Shimura varieties and the Mumford-Tate conjecture”:  
10/22/97 Univ. of California at Berkeley  
11/27/01 Univ. of Arizona  
“Crystalline cohomology: G. Faltings’ approach in the context of Shimura varieties”:  
11/21/97 Univ. of California at Berkeley  
“Connections and coordinates for  $p$ -divisible groups”:  
05/98 Univ. of California at Berkeley  
“Integral canonical models of Shimura varieties of preabelian type”:  
10/03/00 Univ. of Arizona (Part I)  
11/07/00 Univ. of Arizona (Part II)  
11/27/00 Univ. of Arizona (Part III)  
01/30/01 Univ. of Arizona (Part IV)  
02/20/01 Univ. of Arizona (Part V)  
“The boundedness principle, the purity principle, the generalized Manin problem,  
the ultimate stratification and Bruhat decompositions in the F-context”:  
04/03/01 Univ. of Arizona (Part I)  
04/17/01 Univ. of Arizona (Part II)  
“The unitary trick”:  
10/23/01 Univ. of Arizona  
“On the generalization of a result of Serre”:  
12/04/01 Univ. of Arizona  
“The mod  $p$  classification of Shimura F-crystals”:  
04/08/03 Univ. of Arizona (Part I)  
04/15/03 Univ. of Arizona (Part II)  
“Shimura varieties, K3 surfaces, and Hecke-orbits”:  
11/18/98 Univ. of California at Berkeley  
09/14/99 Univ. of Utah  
“The Langlands-Rapoport conjecture”:  
04/28/99 Univ. of California at Berkeley  
“Artin-Schreier systems and their applications”:  
10/03/00 Univ. of Arizona  
“The  $p > 2$  theory of Shimura varieties”:  
02/15/00 Univ. of Utah

- “Generalized Serre–Tate theory”:  
 02/22/00 Univ. of Utah  
 09/26/00 Univ. of Arizona (Part I)  
 10/01/02 Univ. of Arizona (Part II)  
 10/08/02 Univ. of Arizona (Part III)
- “On 2-adic Galois representations for abelian surfaces over rationals”:  
 11/18/03 Univ. of Arizona
- “Integral models in mixed characteristic (0,2) of Shimura varieties of PEL type”:  
 04/13/04 Univ. of Arizona
- “Good reductions of abelian varieties over number fields that have compact factors”:  
 09/14/04 Univ. of Arizona
- “Extension theorems for group schemes”:  
 11/09/04 Univ. of Arizona
- “Purity of stratifications”:  
 09/27/05 Univ. of Arizona
- “Integral canonical models”:  
 11/22/05 Univ. of Arizona
- “Reconstructing p-divisible groups from their truncations of small level”  
 11/28/06 Univ. of Arizona
- “Traverso’s isogeny conjecture”  
 12/04/06 Univ. of Arizona  
 10/23/07 Binghamton University
- “Projective integral models of Shimura varieties of Hodge type with compact factors”:  
 06/20/07 Max-Planck Inst., Bonn, Germany
- “Bruhat F-decompositions for reductive groups in positive characteristic. Part I”:  
 12/01/09 Binghamton University
- “Bruhat F-decompositions for reductive groups in positive characteristic. Part II”:  
 12/08/09 Binghamton University
- “Purity in algebraic geometry”:  
 03/23/10 Binghamton University

### **Outside Seminars**

- “Integral canonical models of Shimura varieties of preabelian type”:  
 07/05/95 Inst. for Mathematics, Heidelberg  
 07/11/95 Univ. of Wuppertal  
 04/24/96 Univ. of Strasbourg
- “Shimura varieties and the Mumford-Tate conjecture”:  
 10/29/98 Univ. of Texas at Austin  
 03/29/99 Univ. of Utah
- “Generalized Serre–Tate theory”:  
 02/08/00 Univ. of Irvine
- “Integral aspects of Shimura varieties via one example”:  
 11/14/00 Univ. of Irvine

- “Surjectivity of  $p$ -adic Galois representations, part I”:  
09/17/07 Cornell University
- “Surjectivity of  $p$ -adic Galois representations, part II”:  
09/24/07 Cornell university
- “Mumford–Tate conjecture via examples”:  
12/17/07 Indiana University
- “Good reductions of abelian varieties over number fields”:  
2/25/08 Cornell University
- “Morita conjecture on everywhere good reduction of abelian varieties”:  
04/21/08 U of Pennsylvania
- “Morita conjecture on projective integral models of Shimura varieties of Hodge type”  
05/01/08 Columbia University
- “Classification and purity results for finite flat group schemes over regular rings”  
06/26/08 Paderborn University, Germany  
07/06/08 IHES, Bures-sur-Yvette, France
- “Invariants, Stratifications, Endomorphisms, and Traverso’s Conjectures for  $p$ -divisible Groups”  
08/11/09 IHES, Bures-sur-Yvette, France
- “Integral canonical models of Shimura varieties of Hodge type”:  
09/18/08 McGill University, Canada  
04/24/09 SUNY at Buffalo  
12/21/12 TIFR, Mumbai, India
- “On the Tate and Langlands–Rapoport conjectures for Shimura varieties of Hodge type”:  
09/15/08 IAS, Princeton
- “Reconstructing  $p$ -divisible groups from their truncations of small level”:  
11/19/08 Cornell University  
11/28/08 TIFR, Mumbai, India
- “Purity of level  $m$  stratifications”:  
12/01/08 TIFR, Mumbai, India
- “On the Mumford–Tate conjecture”  
12/04/08 TIFR, Mumbai, India
- “Subtle invariants and Traverso’s conjectures for  $p$ -divisible groups”  
09/16/10 Penn State University  
10/24/11 Upenn  
11/10/11 Princeton University

### **Colloquia in U.S.A.**

- “A conjecture of Milne and its applications”:  
09/24/97 Univ. of New Mexico, Albuquerque
- “Artin-Schreier systems and their applications”:  
03/30/99 Univ. of Utah
- “The  $p > 2$  theory of Shimura varieties”:  
02/10/00 Univ. of Irvine  
02/25/00 Univ. of New Hampshire  
03/00 Univ. of Arizona

“Reconstructing  $p$ -divisible groups from their truncations of small level”:

01/21/07 Indiana University

05/01/09 SUNY at Albany

“Good reductions of abelian varieties over number fields”:

12/05/07 Kansas State University

12/10/07 Binghamton University

01/10/08 McGill University, Canada

01/23/08 Wayne State University

### **Colloquia outside U.S.A.**

“Reconstructing  $p$ -divisible groups from their truncations of small level”:

02/06/07 Nanyang Technological University, Singapore

04/26/07 Bielefeld University, Germany

“On the Mumford–Tate conjecture”

07/17/08 Milano University, Italy

### **Series of Lectures**

1. “ $P$ -divisible Groups” (series of three lectures of 90 minutes):

04/07 Bielefeld University, Germany

04/11/07 “ $P$ -divisible Groups, Part I: Classification Problems”

04/19/07 “ $P$ -divisible Groups, Part II: Stratifications of Global Versal Deformations”

04/25/07 “ $P$ -divisible Groups, Part III: Formal Lie Group Structures on Formal Deformation Subspaces”

2. “Geometry of Shimura varieties of Hodge type over finite fields”, short course of 3 lectures during the Summer School “Higher-dimensional geometry over finite fields”, June 25 - July 06, 2007, Mathematisches Institut, Georg-August-Universität Göttingen, Germany

3. “Special topics on moduli spaces” (series of three lectures of 90 minutes):

06-07/08 Bielefeld University, Germany

06/18/08 “Towards the Langlands–Rapoport conjecture for Shimura varieties of Hodge type, Part I”

06/19/08 “Towards the Langlands–Rapoport conjecture for Shimura varieties of Hodge type, Part II”

07/09/08 “Good reductions of abelian varieties over number fields”

### **Special Sessions, Symposia, and Conferences**

06/09/1995 “Integral canonical models ...”, on the occasion of Prof. F. Oort’s 60th Birthday, (Univ. of Utrecht, Utrecht, Holland)

07/16/1996 “Points of integral canonical models of Shimura varieties of preabelian type”, Durham Symposium on Galois Representations in Arithmetic Algebraic Geometry, (Univ. of Durham, England)

07/1996 “Shimura varieties and the Mumford-Tate conjecture”, Durham Symposium..., (Univ. of Durham, England)

07/28/1996-08/03/1996 invited to attend and to give a talk to “Arithmetic Algebraic Geometry”, (Math. Forschungsinstitut Oberwolfach, Germany); not attended due to visa problems

- 05/29/1997 “A conjecture of Milne”, during the special p-adic semester,  
(Institute H. Poincaré, Paris, France)
- 06/1997 “Shimura varieties and the Mumford-Tate conjecture”, during the special  
p-adic semester, (Institute H. Poincaré, Paris, France)
- 11/08/1997 “The canonical Lie stratification...”, 928th AMS meeting (Univ. of Mexico,  
Albuquerque, U.S.A.)
- 08/17/1998 “The canonical Lie stratification...”, ICM-1998 Satellite Conference  
(Essen University, Essen, Germany)
- 03/19/1999 “Shimura varieties and the Mumford-Tate conjecture”, 941th AMS meeting  
(Univ. of Illinois at Urbana-Champaign, Urbana, U.S.A.)
- 09/26/1999 “A conjecture of Milne”, 946th AMS meeting, Univ. of Utah, Salt Lake City, U.S.A.
- 07/05/2001 “On the classification of p-divisible groups and objects”,  
22èmes Journées Arithmétiques, 2-6 July, 2001 (Univ. of Lille, Lille, France)
- 11/11/2001 “On the classification of p-divisible groups and objects”, Workshop on  
reductions of Shimura varieties and related spaces: geometry and representation  
theory, Nov. 7-11, 2001 (Fields Institute, Toronto, Canada)
- 03/??/2003 invited as a plenary speaker to the Workshop on reductions of Shimura varieties  
and related spaces, March 4–8, 2003, (Fields Institute, Toronto, Canada); not attended  
due to visa problems
- 06/16/2005 “Projective integral models of Shimura varieties of Hodge type with compact  
factors”, the 2nd AMS–DMV–OeMG joint meeting, June 16-19, 2005,  
(Univ. of Mainz, Mainz, Germany)
- 04/04/2006 “Projective integral models of Shimura varieties of Hodge type with compact,  
factors”, conference Profinite Arithmetic Geometry and related Moduli Spaces,  
Red Lodge, Montana, U.S.A., April 3–7, 2006
- 08/01/2007 “Reconstructing p-divisible groups from their truncations of small level”,  
the 1st AMS–PTM joint meeting, July 31–August 3, 2007,  
(Univ. of Warsaw, Warsaw, Poland)
- 08/07/2008 “On the Tate and Langlands–Rapoport conjectures for Shimura varieties”,  
Arithmetic Algebraic Geometry Workshop, Oberwolfach (Germany) , August 3–9, 2008
- 06/17/2009 “Dimensions of group schemes of automorphisms of truncated Barsotti–Tate  
groups”, Conference on Arithmetic Algebraic Geometry on the occasion of 60th  
anniversary of Thomas Zink, Bielefeld University, Germany

11/15/2009 “Boundedness results for finite flat group schemes over discrete valuation rings of mixed characteristic”, Graduate Conference in Algebra and Topology, Binghamton University, Vestal, NY, November 14–15, 2009

07/14/2010 “Traverso’s conjectures for  $p$ -divisible groups”, XIth meeting of the Canadian Number Theory Association, Acadia University, Wolfville, Nova Scotia, Canada, July 11-16, 2010

10/02/2010 “Purity results in algebraic geometry in positive characteristic”, 1062th AMS meeting, Syracuse University, Syracuse, NY, U.S.A.

## Grants and Contracts

I. Period: July 1997 – June 2000, NSF grant DMS 97-05376, PI Professor Kenneth Ribet, co-PI Adrian Vasiu

Title of the Project: “The Arithmetic of Integral Canonical Models of Shimura Varieties of Preabelian Type”

Institution: University of California, Berkeley, U.S.A.

Funds: total amount available to co-PI and UC at Berkeley \$47,900 US

II. Period: July 2009 – June 2012, NSF grant DMS 0900967, PI Adrian Vasiu.

Title of the Project: “Points of Integral Models of Shimura Varieties of Hodge Type and the Tate and Langlands–Rapoport Conjectures”

Institution: Binghamton University (SUNY), U.S.A.

Funds: total amount \$156,933 US

III. Period: March 1, 2011 to February 28, 2013 (estimated; to change slightly once the final decision is given), NSF grant DMS 1100033, PI Adrian Vasiu.

Title of the Project: “Colaborative Research: Upstate New York Number Theory Conference”.

Institution: Binghamton University (SUNY), U.S.A.

Funds: \$100 (continuing grant to organize a conference at Binghamton University in April 2013; the final amount once the data approaches and once the final approval is given: \$11,176).

IV. Period: September to December 2011, Grant from IAS, Princeton, NJ to be a member of IAS during Fall 2011.

Institution: Binghamton University (SUNY), U.S.A.

Funds: \$23,300.

## Membership in Committees

### At the university level

- Member of Professional Standards Committee 2010–present.
- Member of Harpur College Awards Committee 2008–2010.

### At the departmental level

- Member of the Undergraduate Advising Committee 2011–present.
- Member of the Graduate Student Recruiting Committee 2011–present.
- Member of the Colloquium Committee 2011–present.
- Member of the Hiring Committee 2011–present.
- Member of the Senior Personnel Committee 2011–present.
- Member of the Graduate Committee 2008–01/31/11.
- Member of the Junior Personnel Committee 2008–present.
- Member of the Discretionary Raise Committee 2010–2011.
- Member of the Hiring Committee 2010–01/31/11.
- Member of the Assessment Committee 2009–2011.
- Chair of the PhD Qualifying Exam Committee: Jinghao Li (2011-08-25).
- Chair of the Master Exam Committee: Daniel Williams (2011-07-14).
- Chair of the PhD Thesis Committee: Xiao Xiao (2011-04-28).
- Chair of the PhD Qualifying Exam Committee: Ding Ding (2010-05-07).
- Member of the PhD Thesis Committee: Ilir Snopce (2009-12-04).
- Chair of the PhD Qualifying Exam Committee: Xiao Xiao (2009-05-20).