

## Curriculum Vitae

Wiesława Nizioł

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### Education

Warsaw University 1980-84; M.Sc. *summa cum laude*, Computer Science, 1984;  
thesis: "Metody projektowania i specyfikacji algorytmów systolicznych",  
thesis advisor: Wojciech Rytter.  
Stanford University 1985-86; Ph.D. program, Computer Science.  
Princeton University 1986-91; Ph.D., Mathematics, October 1991;  
thesis: "On a cohomological functor associated to crystalline  
representations", thesis advisor: Gerd Faltings.

**Area of Specialization** : Arithmetic Algebraic Geometry

### Employment

Assistant Professor, Institute of Theory of Computations, Warsaw University, 1984-88.  
Research and Teaching Assistant, Princeton University, Mathematics Department, 1987-1990.  
L. E. Dickson Instructor, University of Chicago, 1992-96.  
D. Jackson Assistant Professor, University of Minnesota, 1993-94 .  
Assistant Professor, University of Utah, 1996-2000.  
Associate Professor, University of Utah, 2000-2011.  
Professor, University of Utah, 2011-.

### Visiting Positions

Postdoctoral Fellow, Harvard University, 1991-92.  
Max-Planck Institut für Mathematik, 1996-1997.  
IHP, Paris, April 1997, January-March 2010.  
Strasbourg University, CNRS Fellowship, May-July 2002.  
University of Muenster, June 2003.  
Cambridge University, March 2004.  
Tokyo University, June, 2004.  
Berlin Mathematical School, Summer 2009.  
Institut de Mathématiques de Jussieu, November-December 2008, April-June 2010.  
IAS, Princeton, October-December 2010.

### Honors

- Polish Computer Science Society Award for The Best Master Thesis in Computer Science, 1984,  
"Metody projektowania i specyfikacji algorytmów systolicznych".
- A. Sloan Research Fellowship, 1998-2001.
- ICM 2006 Invited Lecture in Number Theory.

### Grants

NSF grant: 1998-2001, 2001-2004, 2004-2007, 2007-2010, 2010-2013.

## Publications

- (1) *Cohomology of crystalline representations*, Duke Math. Journal **3** (1993), 747–791.
- (2) *On the image of  $p$ -adic regulator*, Inv. Math. **127** (1997), 375–400.
- (3) *Duality in the cohomology of crystalline local systems*, Comp. Math. **109** (1997), 67–97.
- (4) *Crystalline Conjecture via  $K$ -theory*, Ann. Scient. École Norm. Sup. **31** (1998), 659–681.
- (5) *Cohomology of crystalline smooth sheaves*, Comp. Math. **129** (2001), 123–147.
- (6) *Toric singularities: log-blow-ups and resolutions*, J. Algebraic Geom. **15** (2006), 1–29.
- (7)  *$p$ -adic motivic cohomology and arithmetic*, International Congress of Mathematicians. Vol. II, 459–472, Eur. Math. Soc., Zürich, 2006.
- (8) *Semistable Conjecture via  $K$ -theory*, Duke Math. J. **141** (2008), no. 1, 151–178.
- (9)  *$K$ -theory of log-schemes I*, Doc. Math. **13** (2008), 505–551.
- (10) *On uniqueness of  $p$ -adic period morphisms*, Pure Appl. Math. Q. **5** (2009), no. 1 (Special Issue: In honor of Jean-Pierre Serre, Part 2 of 2) 163–212.
- (11)  *$K$ -theory of log-schemes II: log-syntomic  $K$ -theory*, preprint, 2009.
- (12) *Semistable Conjecture via  $K$ -theory II: the open case*, in preparation, 2011
- (13)  *$P$ -adic vanishing cycles via  $K$ -theory*, in preparation, 2011.

## Recent Talks

- 1997: Poincaré Institute, conference on  $p$ -adic geometry; Max-Planck Institut, Muenster, Strasburg, seminars.
- 1998: ICM 1998 satellite conference on Algebraic Geometry, Essen.
- 1999: CalTech, number theory seminar; Great Lakes  $K$ -theory Conference, V; CRM workshop on Arithmetic Geometry, Montreal.
- 2000: Toulouse, Algebraic  $K$ -theory and homotopy theory of schemes; Azumino, Japan, Algebraic Geometry 2000.
- 2002: Strasbourg, Number Theory seminar.
- 2003: University of Southern California, colloquium; University of Muenster, Number Theory seminar; University of Chicago, Algebraic Geometry seminar; BIRS, “ $p$ -adic variation of motives”.
- 2004: University of Arizona, Number Theory seminar; Cambridge University, Number Theory seminar; Nottingham University, Number Theory seminar; AMS meeting, USC, “Arithmetic Geometry and  $K$ -theory”; Tokyo University, Number Theory seminar; Kyoto University, Number Theory seminar; Research Symposium “ $L$ -functions and Galois Representations”, Univ. of Durham; AMS meeting, Northwestern University, “Applications of Motives”; AMS meeting, University of New Mexico, “Arithmetic Geometry”.
- 2005: Joint Columbia-CUNY-NYU Number Theory seminar; University of Florida, Arithmetic Geometry conference.
- 2006: Invited Lecture, Number Theory, ICM 2006, Madrid; AMS Meeting, Salt Lake City, “Number Theory”; BYU, colloquium.
- 2007: Joint Mathematics Meeting, New Orleans, “Arithmetic Geometry”; AMS meeting, Tucson, “Number Theory”.
- 2008: University of Chicago, Algebraic Geometry seminar; USC, Algebra seminar; Jussieu, Number Theory Seminar.
- 2009: Conference “ $p$ -adic geometry and homotopy theory”, Loen, Norway; Humboldt University, Arithmetic Geometry Seminar.
- 2010: Conference in honour of Jean-Marc Fontaine, IHP, Paris; Conference “LogConf2010”, Bordeaux, France, Colloquium, Berkeley.

## Professional Service

- 1999: co-organizer of a Special Session on Arithmetic Geometry for the AMS meeting at the University of Utah;

- 2007: co-organizer of a Special Session on Arithmetic Geometry for the joint PTM-AMS meeting in Warsaw;
- 2011: co-organizer, Session on Number Theory and K-theory, WIN2: Women in Numbers 2, Banff.
- NSF, member of three Proposal-Evaluation Panels;
- Refereeing: American Journal of Mathematics, Ann. Sci. École Norm. Sup., Astérisque, Bulletin de la Société Mathématiques de France, Compositio Mathematica, Expo. Math., Invent. Math., Journal Inst. Math. Jussieu, Journal of Number Theory, Manuscripta Mathematica, MRL.

## Teaching

- (1) Graduate courses
  - Tate's Thesis; Utah;
  - Modular Forms; Utah;
  - Modular Forms and Hecke Algebras; BMS, Berlin;
  - K-theory; Utah;
  - Analysis of Algorithms; Warsaw;
  - Algorithmic Logic; Warsaw.
- (2) Undergraduate courses
  - Calculus, Vector Calculus; Utah, Minnesota, Chicago;
  - Honor Calculus; Chicago;
  - Real Analysis; Utah, Chicago;
  - Abstract Algebra; Chicago;
  - Linear Algebra; Utah;
  - Basic Number Theory, Algebraic Number Theory; Utah;
  - Statistics; Utah;

## Study groups

- 2004-2005: graduate course on  $p$ -adic Galois representations;
- summer 2006: graduate course on  $p$ -adic modular forms;
- 2006-2007: study group on  $p$ -adic modular forms;
- 2007-2008: study group on the proof of Serre's conjecture;
- spring 2009: study group on Wiles' proof of Fermat Last Theorem;
- fall 2009: study group on  $p$ -adic local Langlands for  $GL_2$ ;
- spring 2011: study group on cohomology of  $p$ -adic symmetric spaces.

## PhD students

C-C Chen, 2009-.

Veronika Ertl, 2009-

## Mentoring

REU supervisor: 2001.

Postdocs: Krzysztof Klosin, Bo-Ha Im, Remi Lodh.