

PERSONAL INFORMATION

Alessandra Bertapelle

WORK EXPERIENCE

 June 2020 - Present **Professore Associato (Associate Professor)**

 SSD MAT/03- Geometria
 Università degli Studi di Padova

 February 2000 - May 2020 **Ricercatore Universitario (Assistant Professor)**

 SSD MAT/03 - Geometria
 Università degli Studi di Padova

Institutional responsibility

- 2010-Present: Member of Commissione Biblioteca di Matematica dell'Università di Padova.
- 2018-Present: Member of the Evaluation Commission of the Dipartimento di Matematica, Padova.
- 2018-Present: Member of the Board of the PhD Program in Mathematical Sciences in Padova.

Organizing activities

- Workshop on algebraic, formal, and rigid geometry: May 7, 2010, Padova (Italy).
- Algant Summer School on Monodromy: June 23-26, 2014, Dobbiaco (Italy).
- Around p-adic cohomologies: September 19-23, 2022, Padova (Italy).

Other activities

- Autumn 2014: Member of the Committee for the qualification of school teachers (Class **A047**).
- Member of committees for the final exam for the doctoral title
- Member of several committees for post-doc grants.
- Referee for several journals and reviewer for MathSciNet.
- Supervisor of 35 thesis (26 Bachelor's thesis, 9 Master's thesis).

Teaching experience

- 2000-2012: Undergraduate courses on Linear Algebra, Commutative Algebra and Algebraic Geometry for students in Mathematics, Physics, Astronomy (Padova)
- 2012-2019: Undergraduate course on Plane Algebraic Curves (Padova).
- 2014: Course "Tropical geometry" for PhD students in Mathematics, Padova (with F. Baldassarri and C. Novelli).
- 2019-Present: Linear Algebra for first year students in Engineering (Padova).
- 2020-Present: Undergraduate course on Algebraic Topology (Padova).

RESEARCH

Area Mathematics: Algebraic Geometry, Arithmetic Algebraic Geometry, Number Theory.

Topics

- 1-motives,
- group schemes over valuation rings,
- Greenberg transform and deformation problems,
- p-jet spaces.

- Papers 2011-2020**
- F. Andreatta, A. Bertapelle: *Universal extension crystals of l -motives and applications*. J. Pure Appl. Algebra 215 (2011), 1919-1944.
 - A. Bertapelle: *Remarks on l -motivic sheaves*. Journal of K-Theory, volume 12, issue 02, (2013) 363–380.
 - A. Bertapelle, J. Tong: *On torsors under elliptic curves and Serre's pro-algebraic structures*. Math. Zeitschrift 277, Issue 1 (2014) 91-147.
 - A. Bertapelle: *Generalized l -motivic sheaves*. Journal of Algebra 420 (2014) 261-268.
 - A. Bertapelle, C. D. Gonzalez-Avilés: *On the cohomology of tori over local fields with perfect residue field*. Israel Journal of Mathematics 206 (2015) 431–455.
 - A. Bertapelle, C. D. Gonzalez-Avilés: *Galois sets of connected components and Weil restriction*. Math. Z 285 (2017), Issue 1, 607–612.
 - A. Bertapelle, C. D. Gonzalez-Avilés: *On the perfection of schemes*, Expositiones Mathematicae, Volume 36, Issue 2, (2018) 197-220.
 - F. Andreatta, L. Barbieri-Viale, A. Bertapelle: *Ogus realization of l -motives*. J. of Algebra 487 (2017) 294–316.
 - A. Bertapelle, C. D. Gonzalez-Avilés: *The Greenberg functor revisited*. European Journal of Mathematics, Volume 4, Issue 4, (2018) 1340-1389.
 - A. Bertapelle, N. Mazzari: *On deformations of l -motives*. Canadian Mathematical Bulletin 62, Issue 1 (2019) 11-22.
 - A. Bertapelle, M. Candilera: *Disegnando somme esponenziali*. Nuova Secondaria n. 5 2019 - Anno XXXVI - ISSN 1828 - 4582.
 - F. Andreatta, L. Barbieri-Viale, A. Bertapelle (with an appendix by B. Kahn): *Motivic periods and Grothendieck arithmetic invariants*. Adv. Math. 359 (2020) 106880.
 - A. Bertapelle, M. Candilera: *Eigenvectors and eigenvalues: a new formula?* Bollettino dell'Unione Matematica Italiana 13 (2020), 329-333.
 - A. Bertapelle, M. Candilera: *Greenberg algebras and ramified Witt vectors*. Journal de Théorie des Nombres de Bordeaux Vol. 32, No. 3 (2020), 901-921.
- Recent preprints**
- A. Bertapelle, T. Suzuki: *The relatively perfect Greenberg transform and cycle class maps*, 42 pages (2020) arXiv:2009.05084 [math.NT]
 - A. Bertapelle, E. Previato, A. Saha: *Arithmetic jet spaces*, 25 pages (2020) arXiv:2003.12269 [math.AG]
- Projects**
- Progetto Giovani Ricercatori Bando 2000 dell'Università degli Studi di Padova *Teoremi di dualità per varietà abeliane definite su campi di valutazione discreta* 01/02/2001- 31/01/2002.
 - Progetto Giovani Ricercatori Bando 2001 dell'Università degli Studi di Padova *Modelli di Néron di varietà abeliane: punti di torsione e gruppi delle componenti* 01/02/2002 - 31/01/2003.
 - Member of: PRIN 2004 "Geometria algebrica aritmetica", PRIN 2006 "Varietà algebriche, teoria dei motivi e geometria aritmetica", PRIN 2008 "Metodi differenziali p -adici e motivi", PRIN 2010-2011 "Geometria algebrica aritmetica e teoria dei numeri", PRIN 2015 "Number Theory and Arithmetic Geometry", PRIN 2017 "Geometrie, algebraic and analytic methods in arithmetic";
 - Member of Marie Curie Action RTN Network of the EU "Arithmetic Algebraic Geometry" 2004-2008;
 - Member of: Progetto di Ateneo 2007 "Rappresentazioni e Motivi", Progetto di Ateneo 2013 "Arithmetic of varieties over number fields";
 - Member of Progetto di Eccellenza Cariparo 2008-2009 "Differential methods in Arithmetics, Geometry and Algebra".

PERSONAL SKILLS

Mother tongue Italian

Other languages English, German, mathematical French

Padova, 22/9/2021