

# Kęstutis Česnavičius

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## Academic positions

- 8/2017 – present **Mathematical Institute of the University of Bonn**, Bonn, Germany.  
Wissenschaftlicher Mitarbeiter
- 8/2014 – 7/2017 **Miller Institute for Basic Research in Science**, Berkeley, CA.  
Miller Research Fellow

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## Education

- 9/2010 – 6/2014 **Massachusetts Institute of Technology**, Cambridge, MA.  
PhD in Mathematics; thesis advisor: Bjorn Poonen
- 9/2007 – 6/2010 **Jacobs University**, Bremen, Germany.  
BSc in Mathematics

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## Selected awards and honors

- Charles W. and Jennifer C. Johnson Prize**, MIT, 2014
- The Marion and Jasper Whiting Foundation Fellowship** (for ICM 2014)
- Praecis Presidential Graduate Fellowship**, MIT, 2010-2011
- Gold medal**, International Mathematical Olympiad 2007, Vietnam

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## Research articles

- [arXiv:1711.06456](https://arxiv.org/abs/1711.06456) **Purity for the Brauer group**, *preprint*.
- [arXiv:1710.06145](https://arxiv.org/abs/1710.06145) **The  $A_{\text{inf}}$ -cohomology in the semistable case**, with Teruhisa Koshikawa, *preprint*.
- [arXiv:1703.02951](https://arxiv.org/abs/1703.02951) **The Manin constant in the semistable case**, *submitted*.
- [arXiv:1604.02165](https://arxiv.org/abs/1604.02165) **The Manin–Stevens constant in the semistable case**, *submitted*.
- [arXiv:1511.07475](https://arxiv.org/abs/1511.07475) **A modular description of  $\mathcal{X}_0(n)$** , *accepted to Algebra and Number Theory*.
- [doi:10.1017/...](https://doi.org/10.1017/...) **The  $\ell$ -parity conjecture over the constant quadratic extension**, *accepted to Mathematical Proceedings of the Cambridge Philosophical Society*.
- [doi:10.14231/...](https://doi.org/10.14231/...) **Coarse base change fails for some modular curves**, *Algebr. Geom.*, **4** (2017), no. 4, 444–451.

- doi:10.1112/...  **$p$ -Selmer growth in extensions of degree  $p$** , *J. Lond. Math. Soc.*, **95** (2017), no. 3, 833–852.
- doi:10.1112/... **The remaining cases of the Kramer–Tunnell conjecture**, with Naoki Imai, *Compos. Math.*, **152** (2016), 2255–2268.
- doi:10.1515/... **The  $p$ -parity conjecture for elliptic curves with a  $p$ -isogeny**, *J. reine angew. Math.*, **719** (2016), 45–73.
- arXiv:1301.4724 **Selmer groups as flat cohomology groups**, *J. Ramanujan Math. Soc.*, **31** (2016), no. 1, 31–61.
- doi:10.1142/... **Local factors valued in normal domains**, *Int. J. Number Theory*, **12** (2016), no. 1, 249–272.
- doi:10.4310/... **Poitou–Tate without restrictions on the order**, *Math. Res. Lett.*, **22** (2015), no. 6, 1621–1666.
- doi:10.1017/... **Topology on cohomology of local fields**, *Forum Math. Sigma*, **3** (2015), e16, 55 pp.
- doi:10.1112/... **Selmer groups and class groups**, *Compos. Math.*, **151** (2015), no. 3, 416–434.

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## Expository writing

**Rational points and obstructions to their existence**, [available online](#).

A problem set for the Arizona Winter School 2015

**Obstructions to rational points via étale homotopy**, [available online](#).

**$l$ -adic perverse sheaves**, [available online](#).

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## Selected invited talks

- 8/25/2017 **Algebraic K-theory and arithmetic**, Będlewo, Poland
- 5/24/2017 **University of Tokyo workshop on arithmetic geometry**, Tambara, Japan
- 5/16/2017 **Number theory seminar**, University of Chicago, Chicago, IL
- 4/23/2017 **Conference in Celebration of the 90<sup>th</sup> Anniversary of the Establishment of Mathematical Disciplines at Tsinghua University**, Beijing, China
- 4/20/2017 **Quebec–Vermont number theory seminar**, Montreal, Canada
- 4/3/2017 **Number theory seminar**, UCLA, Los Angeles, CA
- 3/27/2017 **Elliptic Curves, Torsors, and L-functions**, Charlottesville, VA
- 2/20/2017 **Kyoto Top Global University Mathematics Workshop**, Kyoto, Japan
- 2/17/2017 **RTG Lectures in Arithmetic Geometry at Rice**, Houston, TX
- 10/11/2016 **MIT number theory seminar**, Cambridge, MA
- 4/9/2016 **Bay Area Algebraic Number Theory and Algebraic Geometry Day**, Berkeley, CA
- 3/5/2016 **Special Session on Elliptic Curves**, AMS Sectional Meeting, Athens, GA
- 7/4/2015 **Rational Points 2015**, Franken-Akademie Schloss Schney, Schney, Germany
- 6/16/2015 **Morningside Seminar on Number Theory**, Morningside Center of Mathematics, Chinese Academy of Sciences, Beijing, China
- 5/19/2015 **Number theory seminar**, University of Washington, Seattle, WA
- 3/31/2015 **Séminaire d'arithmétique à Lyon**, Lyon, France
- 3/5/2015 **Number theory seminar**, Caltech, Pasadena, CA

- 2/11/2015 **Number theory and arithmetic geometry seminar**, University of Georgia, Athens, GA
- 1/12/2015 **Special Session on Selmer Groups**, AMS Joint Mathematics Meetings, San Antonio, TX
- 11/12–14/2014 **Invited lecture series**, Kaunas University of Technology, Kaunas, Lithuania
- 5/4/2014 **Atkin memorial workshop**, University of Illinois at Chicago, Chicago, IL
- 7/25/2013 **Rational Points 2013**, Schloss Thurnau, Germany
- 7/19/2013 **Explicit Methods in Number Theory**, Oberwolfach, Germany
- 12/5/2012 **Heilbronn seminar**, University of Bristol, Bristol, United Kingdom
- 11/22/2012 **Forschungsseminar Arithmetische Geometrie**, Universität Duisburg-Essen, Essen, Germany

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### Selected workshops and conferences

- 7/2017 **Rational Points 2017**, Franken-Akademie Schloss Schney, Schney, Germany
- 9/2016 **Rational Points and Algebraic Geometry**, Luminy, France
- 2/2016 **Recent developments in integral  $p$ -adic cohomology theories**, Bonn, Germany
- 3/2015 **Elliptic curves, modular forms and Iwasawa theory**, Cambridge, UK
- 12/2014 **Automorphic forms, Shimura varieties, Galois representations and L-functions**, MSRI, Berkeley, CA
- 8/2014 **International Congress of Mathematicians**, Seoul, South Korea
- 5/2014 **The Arithmetic of Elliptic Curves and Special Values of L-functions**, Atkin memorial lecture and workshop, Chicago, IL
- 2/2014 **Perfectoid Spaces and their Applications**, MSRI, Berkeley, CA
- 7/2013 **New Geometric Techniques in Number Theory**, MSRI summer school, Berkeley, CA
- 3/2013 **Modular Forms and Modular Curves**, Arizona Winter School, Tucson, AZ
- 1/2013 **Iwasawa Theory, Representations and the  $p$ -adic Langlands program**, Münster, Germany
- 11/2012 **Arithmetic of abelian varieties in families**, Lausanne, Switzerland
- 9/2012 **Cohomological Methods in Arithmetic Geometry**, Zürich, Switzerland
- 7/2012 – 12/2012 **Rational points and algebraic cycles**, a semester-long research program, Centre Interfacultaire Bernoulli, Lausanne, Switzerland
- 6/2012 **Contemporary methods for solving Diophantine equations**, BIRS summer school, Banff, Canada
- 3/2012 **Cohomological methods in abelian varieties**, AIM, Palo Alto, CA
- 1/2012 **The Birch and Swinnerton-Dyer Conjecture**, Postech Winter School, Pohang, South Korea

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### Other professional experiences

- 6/2011 – 7/2011 **Mentor for the Research Science Institute**, MIT, Cambridge, MA.  
Designed and supervised two mathematics research projects for high-school students
- 2008 – 2011 **Lecturer at the IMO training camps**, Lithuania.

7/2008 **Author of the problem No. 3**, IMO 2008, Spain.