

Selected Updates to Curriculum Vitae for 2015-2017

Ján Mináč

CONFERENCE ORGANIZATION

- Banff International Research Station Workshop: *Nilpotent Fundamental Groups* (17w5112), June 18-23, 2017. Organizers: Ján Mináč (Western University), Florian Pop (University of Pennsylvania), Adam Topaz (Oxford University), Kirsten Wickelgren (Georgia Institute of Technology).

GRADUATE STUDENTS - COMPLETED PH.D. THESES 2015

Masoud Ataei Jaliseh (completed November 2015; joint supervision with É. Schost)
Javad Doliskani (completed September 2015; joint supervision with É. Schost)
Michael Rogelstad (completed May 2015)

CURRENT GRADUATE STUDENTS

Ph.D. Students:

Ali Alkhairy (2011 September - present)
Béatrice Chetard (2015 September - present; joint supervision with P. Guillot)
Michal Čížek (2016 September - present)
Robert Libman (2016 September - present)
Marina Palaisti (2015 January - present)

PUBLICATIONS 2017

- (1) J. Mináč and N. D. Tân. Triple Massey products and Galois theory. *J. European Math. Soc.* **19** (2017), 255-284.
- (2) J. Mináč and N. D. Tân. Construction of unipotent Galois extensions and Massey products. *Advances in Mathematics* **304** (2017), 1021-1054.
- (3) M. Ataei, J. Mináč and N. D. Tân. Description of Galois unipotent extensions. *Journal of Algebra* **471** (2017), 193-219.

PUBLICATIONS 2016

Papers Published Electronically 2016

- (4) I. Efrat and J. Mináč. Galois groups and cohomological functors. *Transactions of the American Mathematical Society*, published electronically, July 29, 2016 (DOI: 10.1090/tran/6724).

PUBLICATIONS 2016 (continued)**Papers Published Electronically 2016** (continued)

- (5) J. Mináč and N. D. Tân. Triple Massey products vanish over all fields. *Journal of the London Mathematical Society*, published electronically, October 21, 2016 (DOI: 10.1112/jlms/jdw064).
- (6) S. K. Chebolu, D. McQuillan and J. Mináč. Witt's cancellation theorem seen as a cancellation. *Expositiones Mathematicae*, published electronically, October 25, 2016 (DOI: 10.1016/j.exmath.2016.10.003, and currently 'in press' for print publication).

Further Papers Published in 2015 and 2016

- (7) S. K. Chebolu, J. Mináč and A. Schultz. Galois p -groups and Galois modules. *Rocky Mountain Journal of Mathematics* **46** (2016), 1405-1446.
- (8) J. Carlson, S. K. Chebolu and J. Mináč. Ghosts and strong ghosts in the stable category. *Canadian Mathematical Bulletin* **59** (2016), 682-692.
- (9) J. Mináč, M. Rogelstad and N. D. Tân. Dimensions of Zassenhaus filtration subquotients of some pro- p -groups. *Israel Journal of Mathematics* **212** (2016), no. 2, 825-855.
- (10) J. Mináč and N. D. Tân. Triple Massey products over global fields. *Documenta Mathematica* **20** (2015), 1467-1480.
- (11) S. K. Chebolu, J. Mináč and C. Quadrelli. Detecting fast solvability of equations via small powerful Galois groups. *Transactions of the American Mathematical Society* **367** (2015), no. 12, 8439-8464.
- (12) J. Mináč and N. D. Tân (with an appendix written by I. Efrat, J. Mináč and N. D. Tân). The kernel unipotent conjecture and the vanishing of Massey products for odd rigid fields. *Advances in Mathematics* **273** (2015), 242-270.

Papers Submitted 2015-2017

- (13) J. Mináč and N. D. Tân. Counting Galois $\mathbb{U}_4(\mathbb{F}_p)$ -extensions using Massey products. Submitted, August 2015. (32 pages typeset in Latex.)
- (14) P. Guillot, J. Mináč, N. D. Tân and A. Topaz (with an appendix by O. Wittenberg). Four-fold Massey products in Galois cohomology. (30 pages typeset in Latex.) (Submitted, October 2016.)

Complete Selected Drafts of Papers

- (15) D. Benson, S. K. Chebolu, J. Mináč, C. Okay and J. Swallow. Towards a refinement of the Bloch-Kato conjecture. (20 pages typeset in Latex.)
- (16) J. Mináč, F. Passini, C. Quadrelli and N. D. Tân. Quadratic duals and Koszul algebras in Galois cohomology. (25 pages typeset in Latex.)
- (17) J. Mináč, A. Schultz and J. Swallow. Galois module structure of the units modulo p^m of cyclic extensions of degree p^n . (34 pages typeset in Latex.)
- (18) J. Mináč, A. Schultz and J. Swallow. On the indecomposability of a certain $\mathbb{Z}/p^m\mathbb{Z}[\mathbb{Z}/p^n\mathbb{Z}]$ -module. (43 pages typeset in Latex.)
- (19) J. Mináč, A. Schultz and J. Swallow. Arithmetic properties encoded in the Galois module structure of $K^\times/K^{\times p^m}$. (34 pages typeset in Latex.)
- (20) N. Lemire, J. Mináč, A. Schultz and J. Swallow. Galois module structure of eigenspaces of Milnor K-theory. (29 pages typeset in Latex.)
- (21) F. Chemotti, J. Mináč, A. Schultz and J. Swallow. The structure of Galois cohomology over Klein groups. (46 pages typeset in Latex.)
- (22) J. Mináč and N. D. Tân. The kernel intersection conjecture. (22 pages typeset in Latex.)

Selected Invited Talks

- Invited lecture, *Absolute Galois groups of fields*, Lie Theory, Cohomology, and Geometry in Wild Rose Country (A Conference in Honour of Vladimir Chernousov and Arturo Pianzola), August 21-25, 2017, University of Alberta, Edmonton.
- Invited lecture, Mathematical Congress of the Americas (MCA 2017), Special Session: *Recent Trends in Algebraic Cycles, Algebraic K-Theory and Motives*, July 23-28, 2017, Montreal. (Invited by Professor James D. Lewis.)
- Invited lecture, *A magical spell of Massey products on Galois p -extensions*, Canadian Mathematical Society Winter Meeting, *Cohomological Methods in Quadratic Forms and Algebraic Groups Session*, Montreal, Quebec, December 6, 2015. (Invited by session organizers: S. Gille and N. Karpenko (both of the University of Alberta).)
- Invited lecture, *Why I am excited about the use of Massey products in Galois theory (joint work with Nguyen Duy Tân)*, American Mathematical Society Fall Eastern Sectional Meeting, *Advances in Valuation Theory, IV*. Special Session organized by S. El Hitti, F.-V. Kuhlmann and H. Schoutens, Rutgers University, New Brunswick, New Jersey, November 15, 2015.