

Curriculum Vitae

Name: Nicaise
First name: Johannes
Sex: M
Place of birth: Leuven, Belgium
Nationality: Belgian
Date of birth: 24/02/1981
e-mail: j.nicaise@imperial.ac.uk
Homepage : https://perswww.kuleuven.be/johannes_nicaise

Current positions:

- Reader at Imperial College London, UK
- Associate Professor at KU Leuven, Belgium (10%)
- Chargé de Recherche première classe (CR1) of the Centre National de Recherche Scientifique (CNRS), France – on leave

Affiliation:

Imperial College London
Department of Mathematics
South Kensington Campus
London SW7 2AZ, UK

Academic positions

9/2015 – today : Reader at Imperial College London (UK)
10/2014 – today : Associate Professor at KU Leuven (Belgium), position reduced to 10% since 9/2015
10/2009 – 09/2014: Assistant Professor at KU Leuven
2/12/2008: Habilitation thesis *The trace formula and the analytic Milnor fiber*, Lille
03/2006 – today : Chargé de Recherche (CNRS) at Université Lille 1 (France). On leave since 10/2009
10/2005 – 02/2006 : Post-doctoral fellow of the Fund for Scientific Research – Flanders
8/12/2004: PhD thesis *Igusa zeta functions and motivic generating series*, Leuven
10/2001 - 09/2005 : PhD fellow of the Fund for Scientific Research – Flanders at KU Leuven and École Normale Supérieure de Paris (France)

Grants and awards:

- PhD and postdoctoral grant of FWO Flanders (see Curriculum)
- Marie Curie Fellowship for the Semester on K-theory and Non-Commutative Geometry, IHP, Paris, April - July 2004 ($\approx 7\,000$ euro)
- FWO travel grant for a visit to the Université Bordeaux 1, January – May 2005 ($\approx 10\,000$ euro)
- Founding member of the ANR projet jeunes chercheurs “Espaces de Berkovich” ANR-07-JCJC-0004 (2007-2011; 107 000 euro)
- EPSRC and LMS funding for the organization of the conference “Motivic Integration and its Interactions with Model Theory and Non-Archimedean Geometry” (ICMS, Edinburgh, May 2008; 18 500 GBP).
- Promoter of FWO grant G.0415.10 “Motivic integration and motivic Haar measure, zeta functions, and p-adic groups with the Howe - Moore property” (2010-2014; 305 000 euro; copromoter: Raf Cluckers)
- Copromoter of OT grant 11/069 “Motivic zeta functions and Bernstein polynomials” (2011-2015; 325 000 euro; promoter: Wim Veys)
- Copromoter of FWO grant G.0342.12 “Reestablishing smoothness for matrix manifold optimization via resolution of singularities” (2012-2016; 300 122 euro; promoter: Raf Vandebriil)
- Principal Investigator of ERC Starting Grant MOTZETA, “Motivic zeta functions and the monodromy conjecture” (2013-2018; 1 045 000 euro)
- Research member of MSRI, Berkeley (January - March 2014)
- Copromotor of KU Leuven Methusalem Grant (2015-2022; 2 800 000 euro; promotor: Stefaan Vaes)
- Advisor of 5 FWO PhD grants (Arne Smeets 2010, Giovanni Rosso 2011, Emmanuel Bultot 2011, Christophe Debry 2012, Lore Kesteloot 2012)

PhD students:

- Annelies Jaspers, ERC project MOTZETA, 2013-2017 (co-advisor: L. Halle, Copenhagen)
- Otto Overkamp, 2014-2018 (co-advisor: A. Skorobogatov, Imperial College)
- Enrica Mazzon, 2015-2019

Former PhD students:

- Lorenzo Fantini, FWO project G.0415.10, 2010-2014, currently post-doc at Paris 6
- Giovanni Rosso, FWO fellow at KU Leuven, 2010-2015 (co-advisor: J. Tilouine, Paris Nord), currently post-doc at University of Cambridge
- Arne Smeets, FWO fellow at KU Leuven, 2010-2014 (co-advisor: J.-L. Colliot-Thélène, Paris Sud), currently Assistant Professor at University of Nijmegen
- Emmanuel Bultot, FWO fellow at KU Leuven, 2011-2015
- Ben Jeuris, FWO project G.0342.12N, 2011-2015 (co-advisor: R. Vandebriil, KU Leuven) currently post-doc at KU Leuven
- Thomas Cauwbergs, OT project 11/069, 2011-2015 (co-advisor: W. Veys, KU Leuven), currently post-doc at University of Bielefeld
- Christophe Debry, FWO fellow at KU Leuven, 2012-2016 (co-advisor: L. Taelman, Amsterdam)
- Lore Kesteloot, FWO fellow at KU Leuven, 2012-2016 (co-advisor: O. Wittenberg, ENS Paris)

PhD thesis:

“Igusa zeta functions and motivic generating series”, Leuven, 8/12/2004

Advisors: - Prof. Dr. J. Denef (KU Leuven)
- Prof. Dr. F. Loeser (ENS Paris).
Jury: - Prof. Dr. E. Looijenga (Universiteit Utrecht)
- Prof. Dr. W. Veys (KU Leuven)
- Prof. Dr. J. Van Hamel (KU Leuven)
- Prof. Dr. K. Dekimpe (Kulak)

Habilitation thesis:

“Formule des traces et fibre de Milnor analytique” (*The trace formula and the analytic Milnor fiber*), Lille, 2/12/2008

Jury: - Prof. Dr. A. Chambert-Loir (Université Rennes 1)
- Prof. Dr. J. Denef (KU Leuven)
- Prof. Dr. A. Ducros (Université de Nice; Referee)
- Prof. Dr. H. Esnault (Universität Duisburg-Essen; Referee)
- Prof. Dr. F. Loeser (ENS Paris)
- Prof. Dr. M. Mustață (University of Michigan; Referee)
- Prof. Dr. L. Ramero (Université Lille 1)

Education:

- I skipped two grades in elementary school
- High school: Latin-Mathematics, Sint-Albertuscollege (Heverlee, Belgium), June 1997
- University degrees:
 - Master in Mathematics, option pure mathematics, KU Leuven, June 2001
results: 1st year: 91,65% (greatest distinction with congratulations of the jury)
2nd year: 94,33% (greatest distinction with congratulations of the jury)
3rd year: 95,79% (greatest distinction with congratulations of the jury)
4th year: 95% (greatest distinction with congratulations of the jury)
 - Certificate of the Philosophical Academy, KU Leuven, 06/2003. result: 83% (great distinction)
 - Part-time History studies at Universiteit Antwerpen, 2005-2006. Overall result: 90%

Research visits (> 2 weeks):

- January - December 2004 : doctoral research at École Normale Supérieure de Paris, under the direction of F. Loeser.
- April - July 2004 : Marie Curie fellow at Institut Henri Poincaré, Paris, "Semester on K-theory and non-commutative geometry"
- November 2004 : Università degli Studi di Padova
- January - May 2005: Université Bordeaux 1
- May 2007 : Universidad de Valladolid
- November - December 2007 : Universidad Autonoma de Madrid
- January 2008 : Kyoto University
- September 2008 - February 2009: Université Bordeaux 1
- September 2009: University of British Columbia
- April 2010: University of Michigan
- May 2012: UC Berkeley
- October 2012: Morningside Center of Mathematics, Chinese Academy of Sciences, Beijing.
- November-December 2012: IHES, Paris
- September 2013: ICMAT, Madrid
- January-March 2014: MSRI, Berkeley (program: Model Theory, Arithmetic Geometry and Number Theory)
- September 2014: Yale University

Organization of international conferences:

- GAeL 2005 – Géométrie Algébrique en Liberté (CIRM, Luminy, 21-25 March 2005), an international school and conference organized by and for PhD students and starting postdocs.
- "Motivic Integration and its Interactions with Model Theory and Non-Archimedean Geometry" (International Centre for Mathematical Sciences, Edinburgh, 12-17 May 2008), funded by EPSRC and LMS.
- "Motivic integration and complex singularities" (Lyon, 27-29 January 2010).
- International Summer School on Berkovich Spaces (Université Paris 6, 28 June – 9 July 2010) .
- "Toric geometry and applications" (Leuven, 6-10 June 2011)
- "Number theory, algebraic geometry and model theory" in honour of Jan Denef's 60th birthday (CIRM, Luminy, 12 – 16 September 2011)
- "Trends in arithmetic geometry" (Lorentz Center, Leiden, 14-18 January 2013)
- Oberwolfach seminar "Motivic integration" (Oberwolfach, 13-19 October 2013)
- Summer school "Toric degenerations and mirror symmetry" (Sophus Lie Center, Nordfjordeid, 16-20 June 2014)
- Oberwolfach seminar "Berkovich Spaces and Degenerations of Calabi-Yau Varieties" (Oberwolfach, 16 - 22 October 2016)
- "Arc spaces and singularities" (Rennes, 21-25 November 2016)

Other scientific and administrative responsibilities:

- Together with Ben Moonen (Nijmegen) and Lenny Taelman (Amsterdam), I founded the Belgian-Dutch Algebraic Geometry Seminar in 2012. We organize three one-day workshops per year.
- On October 1, 2010, I organized at the KU Leuven the first Belgian edition of the International Mathematics Tournament for high school students, in collaboration with the universities of Nijmegen and Köln. I was also the main organizer of the next editions in 2011, 2012 and 2014. See: wis.kuleuven.be/events/IntWis2014.
- I was asked to referee research articles for Journal für die reine und angewandte Mathematik, Journal de l'Institut de Mathématiques de Jussieu, Comptes Rendus de l'Académie des Sciences, Journal of Algebra, Annales de l'Institut Fourier, Geometry and Topology, American Journal of Mathematics, Proceedings of the AMS, Mathematische Annalen, Journal of Algebraic Geometry, Transactions of the AMS, Bulletin de la SMF, Mathematische Zeitschrift, Annales de l'École Normale Supérieure, Duke Mathematical Journal, Journal of the EMS, Algebra & Number Theory, International Mathematics Research Notices, Michigan Mathematical Journal, Quarterly Journal of Mathematics, Bulletin of the LMS.
- During the academic year 2008-2009, I was a member of the selection committee for the appointment of a Maître de Conférence at the Laboratoire Painlevé of Université Lille 1. In 2014, 2015 and 2016, I was a member of the national evaluation committee for the French ANR grants.

Jury member of PhD theses outside KU Leuven:

Karl Rokaeus (Stockholm, 15 May 2009), Michel Raibaut (Nice, 13 July 2010), Emel Bilgin (Essen, 25 January 2012), Annabelle Hartmann (Essen, 7 September 2012), Le Quy Thuong (Paris 6, 6 December 2012), Florent Martin (Paris 6, 7 October 2013), Federico Bambozzi (Padova, 28 April 2014), Olof Bergvall (Stockholm, 22 May 2014 – “licentiate”), Ana Belen de Felipe (La Laguna, 9 September 2015), Thibaud Lemanissier (Paris 6, 2 October 2015)

Teaching:

- Exercise courses at KU Leuven, 2001-2004 :
 - Mathematical Logic (1st year of Mathematics, Physics, and Informatics)
 - Algebra, Number Theory, Topology (3rd year of Mathematics)
 - Higher Mathematics for biologists and bio-engineers (1st and 2nd year)Nominated by the students for the award of “best teaching assistant” in 2003.
- Master course in Algebraic Geometry (2009-2014), Bachelor course in Algebra (2010 - 2015) and Master course in Algebraic Number theory (2014-2015) at KU Leuven. Nominated by the students of the Mathematics program for the award of “best professor of Mathematics” in 2011 and 2012.
- Bachelor course in Mathematics for economists at KU Leuven (2009-2015)
- Undergraduate course in Algebraic Topology at Imperial College London (2015-2016)
- Several international mini-courses (cf. list of seminar and conference talks)

Invited seminar and conference talks:

- Motivic generating series for toric surface singularities - Arcs, Jets, and Motivic integration, LAMA, Versailles, 25 February 2003
- Motivic generating series - Séminaire "Intégration motivique", ENS, Paris, 4 December 2003
- Arcs and resolution of singularities - GAC 2003, CIRM, Luminy, 8 December 2003
- Oscillating integrals and Newton polyhedra - Angers, 27 February 2004
- Arithmetic Poincaré series - Valladolid, 18 March 2004
- **Mini-course** (3h): Introduction to motivic integration - UAM, Madrid, March 2004
- Arithmetic integration and quantifier elimination - Séminaire de Théorie des nombres, Bordeaux, 2 April 2004
- Relative motives and the theory of pseudo-finite fields - GAEL XII, CIRM, Luminy, 20 April 2004
- Motivic generating series - Arcs, differential calculus, and applications to singularities (in honour of M. Lejeune-Jalabert), CIRM, Luminy, 10 May 2004
- Motives and arithmetic motivic integration - Seminar on algebraic K-theory and related topics, IHP, Paris, 25 May 2004
- Relative motives and pseudo-finite fields - Motives, K-theory and arithmetic geometry, Genova, 30 June 2004
- Relative motives and pseudo-finite fields - Toulouse, 9 July 2004
- **Mini-course** (2h), Motivic integration and rigid geometry - Università degli Studi di Padova, November 2004
- Rigid Geometry and the monodromy conjecture - Young Singularists, CIRM, Luminy, 14 February 2005
- Rigid Geometry and the monodromy conjecture - Nice, 17 March 2005
- Rigid geometry and the monodromy conjecture - Séminaire de Théorie des nombres, Bordeaux, 29 April 2005
- Rigid geometry and the monodromy conjecture - Séminaire de Géométrie algébrique, Rennes, 17 November 2005
- Rigid geometry and the monodromy conjecture - Monomialization, desingularization and motivic integration, Versailles, 3 December 2005
- Rigid geometry and the monodromy conjecture - Séminaire de Géométrie algébrique de Jussieu, Paris, 2 March 2006
- **Mini-course** (2h): Rigid geometry and complex singularities - Aspects algébriques des singularités, CIRM, Luminy, 20 - 24 March 2006
- **Mini-course** (2h): Valladolid, 2 and 4 May 2006
- Rigid geometry and the monodromy conjecture - Séminaire de Géométrie Algébrique, Lille, 7 June 2006
- Rigid geometry and motivic zeta functions - Leuven, 11 October 2006
- **Mini-course** (4h): Introduction à la géométrie non-archimédienne - Lille, 2006-2007
- Géométrie rigide et fonctions zêta motiviques - Séminaire d'Arithmétique, Lille, 14 December 2006
- Géométrie rigide et fonctions zêta motiviques - Séminaire Géométrie et Théorie des modèles, ENS, Paris, 15 December 2006
- Rigid geometry and complex singularities - Topology and geometry of real and complex singularities, Lille, 21 March 2007
- Motivic integration and the analytic Milnor fiber - Applications de la géométrie analytique p-adique de Berkovich, Nice, 18-20 April 2007
- Rigid geometry and complex singularities - Algebraic Geometry Seminar, Antwerpen, 23 April 2007

- Géométrie rigide et fonctions zêta motiviques - Séminaire d'Arithmétique et de Géométrie Algébrique d'Orsay (SAGA), 24 April 2007
- **Mini-course** (4h): Géométrie formelle et géométrie rigide, et le lien avec le schéma des arcs - Valladolid, May 2007
- Rigid geometry and complex singularities - UAM, Madrid, 25 May 2007
- Intégration motivique sur les variétés complexes - Séminaire de géométrie algébrique, Lille, 20 June 2007
- Rigid geometry and motivic zeta functions - International Workshop on Zeta Functions in Algebra and Geometry, Segovia, 27 June 2007
- Motivic invariants for rigid varieties, and a trace formula - AAG Conference, Cetraro, 7-13 October 2007
- La nature motivique de certaines intégrales p-adiques - Séminaire GTEM, Lille, 17 October 2007
- Fonctions zêta p-adiques et motiviques - Séminaire de géométrie algébrique, Rennes, 24 October 2007
- Invariants motiviques des variétés rigides, et applications aux singularités complexes - Séminaire de géométrie algébrique, Rennes, 25 October 2007
- **Mini-course** (3h): Introduction to formal and rigid geometry, and applications to complex singularities via the analytic Milnor fiber - Universidad Complutense de Madrid, October-November 2007
- Espaces de Berkovich et structures de Hodge mixtes - MODNET Research workshop on the Model Theory of fields, CIRM, Luminy, 12-16 November 2007
- **Mini-course** (4h): Introduction to formal and rigid geometry, and applications to complex singularities via the analytic Milnor fiber - Universidad Autonoma de Madrid, November-December 2007
- **Mini-course** (2h): p-adic and motivic zeta functions - French-Japanese Winter School on Zeta and L-functions, Kanagawa, 8-11 January 2008
- Trace formula for varieties over a complete discretely valued field - Algebraic Geometry Seminar, Kyoto University, 18 January 2008
- Invariants motiviques des variétés rigides, et une formule des traces - Séminaire de Géométrie Algébrique, Paris 13, 22 February 2008
- Complex singularities and non-archimedean geometry - Algebraic Geometry Seminar, University of Michigan, 12 March 2008
- Une formule des traces pour les variétés algébriques sur un corps de valuation discrète - Séminaire de Géométrie Algébrique, Lille, 19 March 2008
- La fibre de Milnor analytique - En différents contextes, cycles évanescents, Nice, 26 March 2008
- Non-archimedean geometry and complex singularities - Münster, 7 April 2008
- A trace formula for varieties over a discretely valued field - Münster, 7 April 2008
- Geometric motivic integration - lecture in the Motivic Integration Tutorial, Modnet Training Workshop 2008, La Roche, 25 April 2008
- **Mini-course** (2h): Motivic integration and non-archimedean geometry - Motivic Integration and its Interactions with Model Theory and Non-Archimedean Geometry, ICMS, Edinburgh, 15 May 2008
- Espaces de Berkovich et structure de Hodge mixte sur la cohomologie proche - Séminaire de Géométrie, Grenoble, 2 June 2008
- Trace formula for varieties over a discretely valued field - Essen, 10 July 2008
- Formule des traces pour les variétés sur un corps de valuation discrète - Séminaire de géométrie arithmétique, Bordeaux, 26 September 2008
- Espaces de Berkovich et structures de Hodge mixtes - Séminaire de Théorie des nombres, Bordeaux, 10 October 2008

- Motivic zeta functions for abelian varieties - Essen, 8 January 2009
- **Mini-course** (2h): Introduction à la théorie de Hodge mixte - Séminaire de Géométrie Arithmétique, Bordeaux, February 2009
- Points rationnels sur les variétés sur un corps de valuation discrète - Séminaire des Géométries, Lyon, 27 March 2009
- La conjecture de monodromie pour les variétés abéliennes - Séminaire de Géométrie Algébrique, Rennes, 2 April 2009
- The monodromy conjecture for abelian varieties – KU Leuven, 22 April 2009
- A trace formula for varieties over a discretely valued field – Stockholm University, 13 May 2009
- Grothendieck rings and motivic integration, after K. Rökæus (opponent lecture at Rökæus' PhD defence) – Stockholm University, 15 May 2009
- Limits of Hodge structures and Berkovich spaces - Hodge Theory, Dijon, 29 May 2009
- Points rationnels sur les variétés sur un corps de valuation discrète - Tripode, ENS Lyon, 26 June 2009
- Rational points on varieties over a discretely valued field - Mathematics Colloquium, University of British Columbia, 11 September 2009
- Trace formula for varieties over a discretely valued field - PIMS/SFU/UBC Number Theory Seminar, Simon Fraser University, 17 September 2009
- The monodromy conjecture for abelian varieties - Algebraic Groups Seminar, University of British Columbia, 22 September 2009
- The monodromy conjecture for abelian varieties - Géométrie et Théorie des Modèles, Chevaleret, 11 December 2009
- The monodromy conjecture for abelian varieties - Università degli Studi di Padova, 18 December 2009
- Une preuve de la conjecture de monodromie pour les variétés abéliennes - Géométrie Algébrique et Géométrie Complexe, CIRM, Luminy, 11 January 2010
- Motivic integration on rigid varieties - Motivic integration, Berkovich spaces and complex singularities, Lyon, 28 January 2010
- A proof of the motivic monodromy conjecture for abelian varieties - Conference on Algebraic Geometry and Arithmetic, Essen, 17 February 2010
- Degenerating CY-varieties and monodromy - Cohomology of Algebraic Varieties, Hodge Theory, Algebraic Cycles, Motives, IHP, Paris, 26 April 2010
- A proof of the motivic monodromy conjecture for abelian varieties - Second International Workshop on Zeta Functions in Algebra and Geometry, Palma de Mallorca, 5 May 2010
- **Mini-course** (6h): Weak Néron models and rational points on varieties over discretely valued fields - Motivic Themes from Algebraic Geometry, Feza Gürsey Institute for Fundamental Sciences, Istanbul, 7-13 June 2010
- Limit mixed Hodge structures and Berkovich spaces - International Summer School on Berkovich Spaces, Paris, 9 July 2010
- From p-adic zeta functions to t-adic analytic geometry - Berkovich Spaces and p-adic Differential Equations, Strasbourg, 10 November 2010
- Finite group actions, rational fixed points and weak Néron models - Algebraic Geometry Seminar, Leiden, 15 December 2010
- A proof of the motivic monodromy conjecture for abelian varieties - Arithmetic and Algebraic Geometry 2011, Tokyo, 19 January 2011
- Rational fixed points for finite group actions, and a question of Serre - From p-adic differential equations to arithmetic geometry, Padova, 3 February 2011
- Chai's conjecture and Fubini properties of motivic integrals, Séminaire de Géométrie et Théorie des Modèles, ENS, Paris, 9 April 2011

- Rational fixed points for finite group actions, and a question of Serre - Algebraic Geometry Seminar, Oslo, 11 April 2011
- Rational fixed points for finite group actions, and a question of Serre - Algebraic Geometry Seminar, Zürich, 23 May 2011
- Rational fixed points for finite group actions, and a question of Serre - Algebraic Geometry Seminar, Mainz, 30 June 2011
- Néron component groups of wildly ramified abelian varieties – Arithmetic, Motives and Moduli Spaces, IHP, Paris, 9 January 2012
- Néron component groups of wildly ramified abelian varieties – Number Theory Seminar, UC Berkeley, 6 April 2012
- Néron component groups of wildly ramified abelian varieties – Arithmétique en Plat Pays, Gent, 21 May 2012
- **Graduate course** (16h): The motivic monodromy conjecture for abelian varieties, Morningside Center of Mathematics (Chinese Academy of Sciences), Beijing, October 2012
- The Kontsevich-Soibelman skeleton of a degeneration of Calabi-Yau varieties – Non-Archimedean Analytic Geometry, Oberwolfach, 10 November 2012
- Le squelette de Kontsevich-Soibelman d'une dégénération de variétés de Calabi-Yau – Séminaire de géométrie algébrique, Besançon, 10 January 2013
- The Kontsevich-Soibelman skeleton of a degeneration of Calabi-Yau varieties – Algebraic Geometry Seminar, Hannover, 6 March 2013
- The Kontsevich-Soibelman skeleton of a degeneration of Calabi-Yau varieties – Simons Symposium: Non-Archimedean & Tropical Geometry, US Virgin Islands, 5 April 2013
- The Kontsevich-Soibelman skeleton of a degeneration of Calabi-Yau varieties – Algebraic Geometry Seminar, Michigan, 11 April 2013
- The Kontsevich-Soibelman skeleton of a degeneration of Calabi-Yau varieties – Motivic Invariants and Singularities, Notre Dame, 6 June 2013
- The Kontsevich-Soibelman skeleton of a degeneration of Calabi-Yau varieties – Arithmetic Algebraic Geometry, Berlin, 13 June 2013
- The essential skeleton of a degeneration of algebraic varieties – Algebra and Geometry and Topology of Singularities, Madrid, 10 September 2013
- **Graduate course** (8h): Berkovich spaces and birational geometry – New aspects on Singularity Theory, ICMAT, Madrid, 16-27 September 2013
- **Mini-course** (5h): Motivic integration over discrete valuation rings – Motivic integration, Oberwolfach, 14-18 oktober 2014
- A logarithmic interpretation of Edixhoven's filtration on Néron models of Jacobians – Séminaire autour des cycles algébriques, Paris 6, 13 November 2013
- Une interprétation logarithmique de la filtration d'Edixhoven sur les modèles de Néron des Jacobiennes – Séminaire de théorie des nombres, Caen, 15 November 2013
- Le squelette essentiel d'une dégénérescence de variétés algébriques – Séminaire de géométrie algébrique, ENS Paris, 19 December 2013
- **Mini-course** (4h) : Berkovich skeleta and birational geometry – Université Lille 1, 9 January 2014
- The essential skeleton of a degeneration of algebraic varieties – Algebraic Geometry Seminar, Columbia University, 7 March 2014
- The essential skeleton of a degeneration of algebraic varieties – Algebra Seminar, Georgia Tech, 12 March 2014
- Weight functions on Berkovich spaces and poles of maximal order of motivic zeta functions – Semester on Model theory, Arithmetic Geometry and Number Theory, MSRI, Berkeley, 25 March 2014
- **Mini-course** (4,5h): Skeleta of Berkovich spaces and birational geometry – Special week on Berkovich spaces and applications, Strasbourg, 23 -26 June 2014

- Poles of maximal order of motivic zeta functions – Algebraic and Tropical Geometry Seminar, Yale University, 4 September 2014
- Poles of maximal order of motivic zeta functions – Algebraic Geometry Seminar, Brown University, 5 September 2014
- Espaces de Berkovich et le programme des modèles minimaux – SAGA, Orsay, 23 September 2014
- **Mini-course** (3h): Berkovich spaces and birational geometry – Singularités et géométrie tropicale, Paris 7, 29 September – 1 October 2014
- Berkovich spaces and birational geometry – Algebraic Geometry Seminar, University of Michigan, 5 November 2014
- Poles of maximal order of motivic zeta functions – Motivic Integration, Orbital Integrals, and Zeta-Functions, Banff, 5 December 2014
- **Graduate course** (12h), together with Sam Payne (Yale): Berkovich skeleta – WONDER mini-course, Utrecht, 8-12 December 2014
- Poles of maximal order of Igusa zeta functions – SFN Colloquium, Regensburg, 15 January 2015
- Poles of maximal order of Igusa zeta functions – Simons Symposium on Tropical and Non-Archimedean Geometry, San Juan (Puerto Rico), 3 February 2015
- Pôles d'ordre maximal des fonctions zêta d'Igusa – Séminaire de Géométrie Algébrique, Rennes, 26 February 2015
- Poles of maximal order of Igusa zeta functions – Algebraic Geometry Seminar, Cambridge, 4 March 2015
- Refined curve counting and Hrushovski-Kazhdan motivic integration – Singular Landscapes, Conference in honor of Bernard Teissier, Aussois, 23 June 2015
- Refined curve counting and Hrushovski-Kazhdan motivic integration – AMS Summer Institute, Salt Lake City, 24 July 2015
- The essential skeleton of a degeneration of algebraic varieties – Collapsing Calabi-Yau manifolds, Simons Center, Stony Brook, 1 September 2015
- Poles of maximal order of Igusa zeta functions – Algebra and Geometry Seminar, Sheffield, 13 October 2015
- Poles of maximal order of Igusa zeta functions – Algebraic Geometry Seminar, Oxford, 3 November 2015
- Poles of maximal order of Igusa zeta functions – Algebraic Geometry Seminar, Warwick, 18 November 2015
- Poles of maximal order of Igusa zeta functions – Geometry & Topology Seminar, Imperial College London, 27 November 2015
- Geometric invariants of non-archimedean semi-algebraic sets – Non-Archimedean geometry and applications, Oberwolfach, 17 December 2015
- Geometric invariants of non-archimedean semi-algebraic sets – Workshop on Birational Geometry, Warwick, 11 February 2016
- Geometric invariants of non-archimedean semi-algebraic sets – Singularities and Topology, Nice, 8 March 2016
- From elementary number theory to string theory, and back again – Semi-Plenary talk at the joint meeting of the Mathematical Societies of Belgium, Luxembourg and The Netherlands, Amsterdam, 22 March 2016
- Geometric invariants of non-archimedean semi-algebraic sets – Geometry seminar, EPFL, Lausanne, 12 April 2016
- Poles of maximal order of Igusa zeta functions – Algebraic Geometry seminar, Leuven, 20 April 2016
- Geometric invariants of non-archimedean semi-algebraic sets – Batmobyte, Yale University, 28 April 2016

- Refined tropical curve counting and motivic integration – Algebraic, Tropical, and Nonarchimedean Analytic Geometry of Moduli Spaces, CMO, Oaxaca, 5 May 2016
- Geometric invariants of non-archimedean semialgebraic sets – Tropical geometry seminar, Paris 6, 18 May 2016
- A logarithmic interpretation of Edixhoven’s jumps for Jacobians – Sino-French conference in algebraic and arithmetic geometry, Bordeaux, 25 May 2016
- Tropical refined curve counting and motivic integration – Arithmetic, Geometry and Physics, Herstmonceux Castle, 20 June 2016
- Poles of maximal order of Igusa zeta functions – Mathematics Colloquium, Tuebingen, 27 June 2016
- Tropical refined curve counting and motivic integration – Algebraic geometry seminar, Tuebingen, 28 June 2016
- Poles of maximal order of Igusa zeta functions – Algebraic Geometry: Satellite Conference of 7ECM, Hannover, 13 July 2016
- **Mini-course (4h):** Berkovich spaces and birational geometry – Summer school of the Berlin-Amsterdam-Leiden graduate program, Vlieland, 28 August – 2 September 2016
- **Mini-course (3h):** The non-archimedean SYZ fibration and Igusa zeta functions – Higher Dimensional Algebraic Geometry and Characteristic p , CIRM, Luminy, 12-16 September 2016
- **Mini-course (4h):** The non-archimedean SYZ fibration and Igusa zeta functions – Berkovich spaces and degenerating Calabi-Yau varieties, Oberwolfach, 17-21 October 2016
- The non-archimedean SYZ fibration – Arc schemes and singularities, Rennes, 21 and 22 November 2016