

## Curriculum vitae

Name: Dmitry SUSTRETOV  
Citizenship: Russian  
Homepage: <http://shenme.de/sustretov/>  
E-mail: [dmitri83@hcoop.net](mailto:dmitri83@hcoop.net)  
Skype: dmitri83

## Employment

09/2018– Department of Mathematics, National Research University  
Higher School of Economics, Moscow, Russia, postdoctoral re-  
search fellow  
10/2017–08/2018 Max Planck Institut für Mathematik, Bonn, Germany, post-  
doctoral research fellow  
10/2016–09/2017 University of Lille, France, ERC postdoctoral research fellow,  
project MOTMELSUM  
05/2014–09/2016 Hebrew University of Jerusalem, Israel, ERC postdoctoral re-  
search fellow, project MODAG  
05/2012–04/2014 Ben-Gurion University, Be’er Sheva, Israel, postdoctoral re-  
search fellow

## Education

10/2008–07/2013 DPhil, University of Oxford  
10/2005–07/2010 Ph.D., INRIA Nancy Grand Est, projet TALARIS  
10/2004–9/2005 Master in Computer science, Université Henri Poincaré, Nancy,  
France  
10/2002–06/2004 Master in Applied Mathematics and Computer Science,  
Voronezh State University, Russia  
10/1998–06/2002 Bachelor in Mathematics, Voronezh State University

Starting 2008, I changed my career path to become a researcher in pure mathematics.

DPhil thesis “Non-algebraic Zariski geometries” in Mathematics under supervision of Boris Zilber.

*Examiners:*

Jonathan Pila (professor, University of Oxford, UK),  
Jonathan Kirby (Senior Lecturer, University of East Anglia, Norwich, UK).

Ph.D. thesis “Topological semantics for hybrid logic” in Computer Science under supervision of Patrick Blackburn.

*Committee:*

Valetin Shekhtman (professor, Moscow State University, Russia, referee),  
Mikhail Zakharyashev (University of London, UK, referee),

Stépane Demri (CR CNRS, Cachan, France),  
Ian Hodkinson (professor, Imperial College, London, UK),  
François Lamarche (DR INRIA, Nancy, France),  
Dominique Méry (professor, University Nancy 1, France).

### **Scholarships**

Hill Foundation Scholarship, 2008-2012  
Bourse de la région de Lorraine, 2005-2008  
Bourse du Gouvernement Français, 2004

### **Organisational experience**

- participation in organisation of ESSLLI Student Session 2006 in Málaga, Spain (co-chair of Logic and Computation track);
- chair (with Ville Nurmi) of ESSLLI Student Session 2007, Dublin, Ireland;

### **Language skills**

English (fluent), French (fluent), Russian (native speaker).

### **Research visits**

03/2018	Institut Henry Poincaré, semester in Model theory, valuations and combinatorics
01/2018 – 02/2018	Institut des Hautes Études Scientifiques
11/2013 – 12/2013	Mathematics department, Higher School of Economics, Moscow, Russia

## Invited talks

- 2018 “Gromov-Hausdorff limits of curves with flat metrics and non-Archimedean geometry”, Centre for Quantum Geometry of Moduli Spaces, Aarhus, Denmark  
“Gromov-Hausdorff limits of curves with flat metrics and non-Archimedean geometry”, Institut des Hautes Études Scientifiques, Bures-sur-Yvette, France  
“Gromov-Hausdorff limits of curves of genus  $\geq 1$  with flat metrics with singularities”, seminar on model theory, Institut Henry Poincaré, Paris, France  
“Gromov-Hausdorff limits of curves of genus  $\geq 1$  with flat metrics with singularities”, British Postgraduate Model Theory Conference, Oxford, UK
- 2017 “Incidence systems on Cartesian products of algebraic curves”, seminar Géométrie et théorie des modèles, Paris, France  
“Gromov-Hausdorff limits of curves of genus  $\geq 1$  with flat metrics with singularities”, SFB Seminar, University of Regensburg, Germany  
“Asymptotic integration and non-Archimedean geometry”, Model theory seminar, University of Münster, Germany  
“Trichotomie de Zilber et une application au programme anabélien birationnel de Bogomolov”, Séminaire d’algèbre, topologie et géométrie, University of Nice, France  
“Restricted Zilber’s trichotomy in dimension 1”. Series of talks, UC Berkeley, USA
- 2016 “Trichotomie de Zilber et une application au programme anabélien birationnel de Bogomolov”. Séminaire Arithmétique, University of Lille, France  
“Gromov-Hausdorff limits and model theory”. Séminaire Géométrie des espaces singuliers, University of Lille, France  
“Zilber trichotomy for reducts of algebraic curves”. Workshop on Zilber trichotomy, Sırınç, Turkey  
“Zilber trichotomy for reducts of algebraic curves”. Model theory month in Muenster, final workshop, University of Muenster, Germany
- 2015 “Zilber trichotomy for reducts of algebraic curves”. Logic seminar, University of Oxford, UK  
“Gromov-Hausdorff limits of Calabi-Yau manifolds via model theory”. Seminar Réga, Paris (réseau d’étudiants en géométrie algébrique)  
“Zilber’s restricted trichotomy”, University Paris 7 model theory seminar  
“Non locally modular reducts of ACF”. Neostability theory workshop, Oaxaca, Mexico
- 2014 “Generalized imaginaries and Galois cohomology”. Classification theory ICM Satellite Workshop, Daejeon, South Korea

- “Incidence systems on products of algebraic curves”. Algebraic geometry and number theory seminar, University of Ben Gurion, Be’er Sheva, Israel
- “Non-standard Zariski geometries”. Algebra seminar, University of Haifa, Israel
- “Definable groupoids, generalized imaginaries and Zilber’s non-standard Zariski geometries”. Logic seminar, Hebrew University of Jerusalem
- 2012 “Torelli theorem for curves over finite fields via model theory”. Seminar of Laboratory of algebraic geometry and its applications, Faculty of Mathematics, Higher School of Economics, Moscow, Russia (October 2012)
- 2011 “Zilber’s trichotomy”. Logic seminar, Univeristy Paris 7
- “Quantum Zariski geometries”. Model theory seminar, Univeristy Paris 7

## Teaching activities

**Higher School of Economics.** Graduate-level minicourse on geometric model theory, 2013. The course consisted of 6 one and a half hour lectures and contained material on groups of finite Morley rank, Zilber’s indecomposability theorem, Hrushovski’s group configuration, and Zilber’s trichotomy.

**University of Oxford.** Teaching assistant: “B1a Logic”, “B9a Galois theory”, 2010; “C1.1 Model theory”, “B3a Algebraic curves”, 2011.

I have been class tutor for 3rd and 4th year courses at the Mathematical Institute of University of Oxford. My responsibilities were conducting practice sessions, presenting solutions of problems and marking class assignments. Each course consisted of 16 hours of practice sessions with a group of 8-10 students.

**University Nancy 1:** “Initiation aux mathématiques”, TD L1 Science de la Matière, 2007.

I have been conducting practice sessions (TD), where problems were discussed and solved and was responsible for marking home assignments. The course consisted of 48 hours of practice sessions with a group of 20-30 students.

### Summary.

Institution	Course	Year	Hours	Type	Level
HSE Moscow	Geometric model theory	2013	9h	lectures	5th year
U Oxford	Algebraic curves	2011	16h	TA	3rd year
	Model theory	2011	16h	TA	4th year
	Logic	2010	16h	TA	3rd year
	Galois theory	2010	16h	TA	3rd year
U Nancy 1	Intiation aux Mathématiques	2007	48h	TA	1st year
TOTAL			112h TA 9h lectures		

## Publication List

1. *Motivic volume of families of polarized rigid-analytic tori*. D. Sustretov. arXiv:1805.04942, 2018. submitted.
2. *Gromov-Hausdorff limits of flat Riemannian surfaces and non-Archimedean geometry*. D. Sustretov. arXiv:1802.03818, 2018. submitted.
3. *Incidence systems on Cartesian powers of algebraic curves*. A. Hasson, D. Sustretov. preprint: arXiv:math/1702.05554, 2017. submitted.
4. *Generalised imaginaries and Galois cohomology*, *Journal of Symbolic Logic*, 81(3), pp. 917–935, 2016. (preprint: arXiv:1312.2273v2).
5. *The Quantum Harmonic Oscillator as a Zariski Geometry*. V. Solanki, D. Sustretov and B. Zilber. *Annals of Pure and Applied Logic*, 165(6): 1149–1168, 2014. (preprint: arXiv:0909.4415.)
6. *Hybrid logics of separation axioms*. Dmitry Sustretov. *Journal of Logic, Language and Information*, 18(4), 2009.
7. *Modal languages for topology: expressivity and definability*. Balder ten Cate, David Gabelaia and Dmitry Sustretov. *Annals of Pure and Applied Logic*, 159(1-2):146-170, 2009. (preprint: arXiv:math/0610357)