

CURRICULUM VITAE of HÜLYA ARGÜZ

CONTACT INFORMATION	Université de Versailles Saint-Quentin-en-Yvelines, UFR des sciences, 45 avenue des Etats-Unis 78035 Versailles, France nuromur-hulya.arguz@uvsq.fr
EMPLOYMENT	<p>Université de Versailles, Paris–Saclay, France 10/2019-current Postdoctoral fellow of Fondation Mathématiques Jacques Hadamard Mentor: Dimitri Zvonkine</p> <p>Imperial College London, UK 01/2017-09/2019 Postdoctoral research associate Mentor: Tom Coates</p> <p>IAS School, Princeton, USA 09/2016-12/2016 Postdoctoral member Mentor: Paul Seidel</p> <p>University of Hamburg, Germany 02/2013-08/2016 Research Assistant Mentor: Bernd Siebert</p> <p>University of Hamburg, Germany 01/2012-01/2013 DFG Scholar in RTG 1670</p> <p>Middle East Technical University, Turkey 01/2009-09/2011 Teaching Assistant</p>
VISITING POSITIONS	<p>University of Cambridge, UK 01-03/2018 Mentor: Mark Gross</p> <p>Institut Mittag Leffler, Sweden 11-12/2020</p>
EDUCATION	<p>University of Hamburg, Germany</p> <p>Ph.D., Mathematics, 2016</p> <ul style="list-style-type: none">• Thesis title: <i>Log geometric techniques for open invariants in mirror symmetry.</i>• Advisor: Bernd Siebert <p>M.Sc., Mathematics, 2013</p> <ul style="list-style-type: none">• Thesis title: <i>Lagrangian submanifolds in Kato-Nakayama spaces.</i>• Advisor: Bernd Siebert <p>Middle East Technical University, Turkey</p> <p>M.Sc., Mathematics, 2011, with Honours</p> <p>B.Sc., Mathematics, 2008, with Honours</p>
PAPERS AND PREPRINTS	<ol style="list-style-type: none">1. <i>The higher dimensional tropical vertex</i>, joint with Mark Gross, https://arxiv.org/abs/2007.08347, 2020.2. <i>Real Log Curves in Toric Varieties, Tropical Curves, and Log Welschinger Invariants</i>, joint with Pierrick Bousseau, 57 pages, arXiv:2004.05124, submitted.3. <i>On the cohomology groups of real Lagrangians in Calabi-Yau threefolds</i>, joint with Thomas Prince, 32 pages, arxiv:2002.03957, submitted.

4. *Real Lagrangians in Calabi-Yau Threefolds* joint with Thomas Prince. 31 pages, **Proceedings of the London Mathematical Society (3) 00 (2020)**.
5. *A tropical and log geometric approach to algebraic structures in the ring of theta functions*, arXiv:1712.10260, submitted.
6. *Real loci in (log-) Calabi-Yau manifolds via Kato-Nakayama spaces of toric degenerations*, 65 pages, arXiv:1610.07195, submitted.
7. *Self dual metrics on non-simply connected 4-manifolds*, joint with Y. Ozan and M. Kalafat, **Journal of Geometry and Physics**, 8 pages, **Volume 64, (2013)**.
8. *Complex and symplectic structures on Panelled Web 4-manifolds*, joint with M. Kalafat, 11 pages, **Topology and its Applications**, **159, no:8, (2012)**

PEER-REVIEW
CONFERENCE
PROCEEDINGS,
THESIS, AND
REPORTS

9. *Topological torus fibrations on Calabi-Yau manifolds via Kato-Nakayama spaces*, 27 pages, arxiv version: arXiv:2003.11589, to appear in **Proc. of Gökova Geometry Topology Conf., International Press, (2020)**.
10. *Toric degenerations and tropical enumeration of real curves with Welschinger signs* **Oberwolfach reports 27/2019 DOI: 10.4171/OWR/2019/27, pg 45-47.**
11. *Floer theory for the Tate curve via tropical geometry*, **Oberwolfach Reports DOI: 10.4171/OWR/2015/23, pg:1290-1293.**
12. *Log-geometric techniques for open invariants in mirror symmetry*. **PhD thesis, University of Hamburg, 2016, <http://ediss.sub.uni-hamburg.de/>.**
13. *Real Lagrangians in Kato-Nakayama Spaces*. **MSc thesis, University of Hamburg, 2013.**

HONORS AND
AWARDS

- Junior fellowship, Institut Mittag-Leffler, Sweden, 30000 SEK, 2020.
- Postdoctoral Laureate, Fondation Mathématiques Jacques Hadamard, 2019-2021.
- Conference organisation grants from the London Mathematical Society, The Heilborn Institute, and the Fondation Compositio Mathematica, to organize the conference on “New Perspectives on SYZ Mirror Symmetry” at Imperial College, 10000 GBP, 2020.
- PhD scholarship, RTG 1670 funded by DFG, 2013-2016.
- Qualification Scholarship, RTG 1670 funded by DFG, 2012-2013.
- Finalist at the Fame Lab Competition, organized by the British Council, for communicating “Calculus” to the public on a national TV channel, 2007.
- Money Award for ranking as 7th among half a million students in the yearly national high school entrance examination in Turkey (2000).

INVITED TALKS AT
INTERNATIONAL
CONFERENCES AND
WORKSHOPS

1. 20/02/2020, Kyoto University, “The 5’t^h KTGU Mathematics Workshop for Young Researchers ”, **Kyoto, Japan**.
2. 20/06/2019, Oberwolfach, “Workshop on Logarithmic Algebraic Geometry ”, **Oberwolfach, Germany**.
3. 28/03/2019, University of Loughborough, “Geometry and Physics Workshop”, **Loughborough, UK**.
4. 02/02/2019, University of Freiburg, “Fourth Meeting for Young Women in Mathematics”, **Freiburg, Germany**.
5. 15/10/2018, KIAS, “Matrix Factorizations and Mirror Symmetry” , **Seoul, South Korea**.
6. 10/06/2018, “57th Annual Georgia Topology Conference”, **Georgia, USA**.
7. 08/02/2018, GLEN British “Algebraic Geometry Meeting”, **Sheffield, UK**.
8. 10/01/2018, Chinese University of Hong-Kong, “Mirror symmetry and string theory” , **Hong-Kong**.
9. 05/01/2018, Guangzhou University, “Mini-course on Tropical Geometry” , **Guangzhou, China**.
10. 14/12/2017, Higher School of Economics, “Conference on mirror symmetry and related topics” , **Moscow, Russia**.
11. 04/08/2017, Pacific Rim conference on “Complex and Symplectic Geometry”, **Pohang, South Korea**.
12. 04/2015, Oberwolfach workshop on “Tropical Aspects in Geometry, Topology and Physics” , **Oberwolfach, Germany**.

OTHER TALKS

13. 03/12/2020 “Zoom Algebraic Geometry Seminar”, organised by Ivan Cheltsov, **Edinburgh, UK**.
14. 09/05/2020, “Zoomerfest” organized by Nikon Kurnosov, **Moscow, Russia**.
15. 27/04/2020, “Seminar in Real and Complex Geometry”, organised by Eugenii Shustin at **Tel Aviv, Israel**.
16. 24/04/2020, “Seminar on cluster algebras and quiver representations”, organised by Bernhard Keller at **Paris, France**.
17. 20/01/2020, Laboratoire de Mathématique Jean Leray, Nantes, “Itinerant seminar on Tropical Geometry in Europe”, **Nantes, France**.
18. 05/12/2019, IST Austria, “Seminar on Algebraic Geometry ” , **Klosterneuburg, Austria**.
19. 15/11/2019, Paris Diderot University, “Seminar on Cluster algebras and quiver representations” , **Paris, France**.
20. 08/11/2019, Paris Diderot University, “Seminar on Cluster algebras and quiver representations” , **Paris, France**.
21. 06/11/2019, University of Versailles – Paris Saclay, “Seminar on Arithmetic and Algebraic Geometry” . **Versailles, France**,

22. 18/10/2019, Sorbonne University, “Seminar on Enumerative Algebraic Geometry”, **Paris, France**.
23. 31/01/2019, Radboud University, “Invited Job Interview Talk, for a position of assistant professorship”, **Nijmegen, Netherlands**,
24. 16/11/2018, Sorbonne Université, “Séminaire de Géométrie Enumérative”, **Jussieu, France**,
25. 27/03/2018, Institut Mittag-Leffler, “Seminar on Tropical Geometry”, **Djursholm, Sweden**.
26. 07/12/2017, University of Hannover, “Seminar on Algebraic Geometry”, **Hannover, Germany**.
27. 09/05/2017, University of Warwick, “Algebraic Geometry Seminar”, **Warwick, UK**.
28. 27/02/2017, Imperial College, “Algebraic Geometry Seminar”, **London, UK**.
29. 15/12/2016, University of Pennsylvania, “Homological Mirror Symmetry Seminar”, **Philadelphia, USA**.
30. 13/12/2016, University of Princeton, “Algebraic Geometry Seminar”, **Princeton, USA**.
31. 09/12/2016, Columbia “Symplectic Geometry, Gauge Theory and Categorification Seminar”, **NYC, USA**.
32. 06/12/2016, University of California, Berkeley “Algebraic Geometry Seminar”, **Berkeley, USA**.
33. 29/11/2016, University of Texas Austin, “Seminar of the research group of Sean Keel”, **Austin, USA**.
34. 14/11/2016, University of Rochester, “Geometry Seminar”, **Rochester, USA**
35. 03/11/2016, Simons Center, “Seminar on The Math of Gauge Fields”, **Stony-Brook, USA**.
36. 09/2016, IAS School, “Postdoctoral Members Seminar”, **Princeton, USA**.
37. 05/2016, University of Luxembourg, “Seminar on Algebra, Geometry and Quantization”, **Luxembourg**.
38. 12/2015, North German Algebraic Geometry Seminar, **Berlin, Germany**.
39. 09/2015, Max Planck Institute for Mathematics, “Seminar on Algebra, Geometry and Physic”, **Bonn, Germany**.
40. 09/2013, “Autumn School on Algebraic Geometry” Slides at the bottom of the website: [/urlhttps://sites.google.com/site/schoolrationalcurves/schedule](https://sites.google.com/site/schoolrationalcurves/schedule), **Poitiers, France**.

VIDEO LECTURES

- “Log geometric techniques for open invariants in mirror symmetry” at the Simons Center. Video: [Stony-Brook video portal](#)
- “Log geometric techniques for open invariants in mirror symmetry”, at the IAS school, short talks of postdoctoral members seminar. Video: [IAS video portal](#)

TEACHING
EXPERIENCE

- Lecturer for “Riemannian Geometry”, Imperial College London, UK, 2018-2019.
- TA for “Algebra”, in German, University of Hamburg, Germany, 2014.
- TA for “Algebraic geometry II”, University of Hamburg, Germany, 2013.
- TA for “Differential Geometry”, “Calculus with Analytic Geometry”, “Advanced Calculus”, “Calculus for Engineers” at Middle East Technical University, Turkey, 2009-2011.

SUPERVISION

- M.Sc. student at Imperial College London (subsequent position: PhD at the University of Edinburgh).

SERVICE

- Reviewer at zbMath. Articles reviewed are available at <https://zbmath.org>
- Organiser of the conference “New Perspectives on SYZ Mirror Symmetry”, at Imperial College London, 2021, <https://sites.google.com/view/imperial-syz>.

LANGUAGES

- English, fluent
- German, fluent
- French, beginner
- Turkish, mother-tongue