

# Yankı Lekili

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CONTACT INFORMATION	Imperial College London Department of Mathematics South Kensington Campus London SW7 2AZ, UK	Email: y.lekili@imperial.ac.uk
PERSONAL	Born 1983 in Turkey.	
APPOINTMENTS	2023 - Professor of Mathematics, Imperial College London 2021 - 2023 Reader in Mathematics, Imperial College London 2018 - 2020 Reader in Mathematics, King's College London 2013 - 2022 Royal Society University Research Fellow, King's College London. 2014 - 2015 Assistant Professor of Mathematics, University of Illinois, Chicago. 2010 - 2013 Herchel Smith Postdoctoral Research Fellow, University of Cambridge. 2009 - 2010 MSRI Postdoctoral Fellow, Symplectic and Contact Geometry and Topology.	
EDUCATION	Massachusetts Institute of Technology 2005 - 2009 Ph.D. Mathematics <ul style="list-style-type: none"><li>• Dissertation Topic: <i>Broken Lefschetz fibrations, Lagrangian matching invariants and Ozsváth-Szabó invariants</i></li><li>• Advisor: Denis Auroux</li></ul> École Normale Supérieure de Lyon 2004 - 2005 Maîtrise, Pure Mathematics. University of California, Berkeley 2003 - 2004 Education abroad exchange student. Bilkent University 2001 - 2004 B.A. in Mathematics.	
ACADEMIC HONORS	Whitehead Prize, 2023. Royal Society University Research Fellow, 2013-2022. Herchel Smith Research Fellow at University of Cambridge 2010-2013. Junior Research Fellow of King's College, Cambridge 2010-2013. Charles and Jennifer Johnson Prize, MIT departmental award (best paper by a graduate student), 2009.	
RESEARCH GRANTS	2022-2026 EPSRC Standard grant £854,187 2019-2021 Royal Society Enhancement Grant £199,495 2018-2021 Royal Society URF (renewal) £369,144 2015-2018 NSF grant DMS-1509141 \$166,084 2015-2018 Royal Society Research Grant £68,077 2013-2018 Royal Society URF (suspended during 2014-2015) £499,127 2010-2014 Marie Curie Reintegration Grant EU-FP7-268389 €79,130	
PUBLICATIONS	[1] Wrinkled fibrations on near-symplectic manifolds. Geometry & Topology (2009). <i>arXiv:0712.2202</i> . [2] Heegaard Floer homology of broken fibrations over the circle.	

- Advances in Mathematics (2013). *arXiv:0903.1773*.
- [3] Examples of planar tight contact structures with support norm one (with T. Evgü).  
IMRN (2010). *arXiv:0911.0470*.
- [4] Geometric compositions in quilted Floer theory (with M. Lipyanskiy).  
Advances in Mathematics (2013). *arXiv:1003.4493*.  
See also: Corrigendum, Adv. Math. 308 (2017), 1340–1345.
- [5] Milnor fillable contact structures are universally tight (with B. Ozbagci).  
MRL (2010). *arXiv:1005.2385*.
- [6] Planar open books with four binding components.  
Algebraic & Geometric Topology (2011). *arXiv:1008.3529*.
- [7] Fukaya categories of the torus and Dehn surgery (with T. Perutz).  
Proceedings of National Academy of Sciences (PNAS) (2011). *arXiv:1102.3160*.
- [8] The symplectic topology of some rational homology balls (with M. Maydanskiy).  
Commentarii Mathematici Helvetici (2014). *arXiv:1202.5625*.
- [9] Floer cohomology of  $\mathfrak{g}$ -equivariant Lagrangian branes (with J. Pascaleff).  
Compositio Mathematica (2015). *arXiv:1310.8609*.
- [10] Floer cohomology of the Chiang Lagrangian (with J. Evans).  
Selecta Mathematica (2015). *arXiv:1401.4073*.
- [11] A modular compactification of  $\mathcal{M}_{1,n}$  from  $A_\infty$ -structures (with A. Polishchuk).  
J. Reine Angew. Math. (Crelle) (2017) *arXiv:1408.0611*.
- [12] Koszul duality patterns in Floer theory (with T. Evgü).  
Geometry & Topology. *arXiv:1502.07922*.
- [13] Arithmetic mirror symmetry for genus 1 curves with  $n$  marked points (with A. Polishchuk).  
Selecta Mathematica (2017). *arXiv:1601.06141*.
- [14] Auslander orders over nodal stacky curves and partially wrapped Fukaya categories  
(with A. Polishchuk)  
Journal of Topology (2018), 11: 615-644. *arXiv:1705.06023*.
- [15] Embedding all contact 3-manifolds in a fixed contact 5-manifold (with J. Etnyre)  
Journal of the London Mathematical Society (2018). *arXiv:1712.09642*.
- [16] Generating the Fukaya categories of Hamiltonian  $G$ -manifolds (with J. Evans).  
Journal of the American Mathematical Society 32 (2019), 119–162. *arXiv:1507.05842*.
- [17] Associative Yang-Baxter equation and Fukaya categories of square-tiled surfaces  
(with A. Polishchuk)  
Advances in Mathematics (2019) *arXiv:1608.08992*.
- [18] Fukaya categories of plumbings and multiplicative preprojective algebras (with T. Evgü)  
Quantum Topology (2019) *arXiv:1703.04515*.
- [19] Derived equivalences of gentle algebras via Fukaya categories (with A. Polishchuk)  
Mathematische Annalen (2019) *arXiv:1801.06370*.
- [20] Homological mirror symmetry for higher dimensional pairs of pants (with A. Polishchuk)  
Compositio Mathematica (2020) *arXiv:1811.04264*
- [21] Homological mirror symmetry for Milnor fibers of simple singularities (with K. Ueda)  
Algebraic Geometry (2021) *arXiv:2004.07374*
- [22] The symplectic geometry of higher Auslander algebras: Symmetric products of disks  
(with T. Dyckerhoff & G. Jasso)  
Forum, Sigma (2021) *arXiv:1911.11719*
- [23] A symplectic look at the Fargues Fontaine curve (with D. Treumann)

Forum, Sigma (2021) *arXiv:2006.15612*

- [24] Duality between Lagrangian and Legendrian invariants (with T. Ekholm)  
Geometry & Topology (2022) *arXiv:1701.01284*
- [25] Homological mirror symmetry for Milnor fibers via moduli of  $A_\infty$  structures (with K. Ueda)  
Journal of Topology (2022) *arXiv:1806.04345*
- [26] Homological Mirror Symmetry for symmetric squares of punctured spheres (with A. Polishchuk)  
Advances in Mathematics (In press) (2022) *arXiv:2105.03936*
- [27] Symplectic cohomology of compound Du Val singularities (with J. Evans)  
Annales Henri Lebesgue (In press) (2022) *arXiv:2104.11713*
- [28] On Homological Mirror Symmetry for the complement of a smooth ample divisor in a K3 surface  
(with K. Ueda)  
Kyoto Journal of Mathematics (In press) (2022) *arXiv:2111.06541*

#### UNPUBLISHED

- [1] Deformations of Kalek-Karmazyn algebras via Mirror Symmetry (with J. Tevelev)  
Preprint, *arXiv:2412.09724*
- [2] Homological mirror symmetry for Rabinowitz Fukaya categories of Milnor fibers of Brieskorn-Pham singularities (with K. Ueda)  
Preprint, *arXiv:2406.15915*
- [3] Noncommutative crepant resolutions of  $cA_n$  singularities via Fukaya categories (with J. Evans)  
Preprint, *arXiv:2307.06592*.
- [4] Equivariant Fukaya categories at singular values (with E. Segal)  
Preprint, *arXiv:2304.10969*.
- [5] Broken Lefschetz fibrations, Lagrangian matching invariants and Ozsváth-Szabó invariants.  
PhD Thesis, (2009) MIT (mostly subsumed into [1] and [2]).
- [6] Arithmetic mirror symmetry for the 2-torus (with T. Perutz).  
Unpublished (mostly superseded by [11] and [13]). *arXiv:1211.4632*.

#### PHD STUDENTS

Bogdan Simeonov (Sep 2024 - )

Daniil Mamaev (Sep 2022 - )

Ilaria Di Dedda (Sep 2020 - Aug 2024 )

Thesis title: Type A symplectic Auslander-Reiten theory.  
Subsequent position: Postdoc at University of Edinburgh

Matthew Habermann (May 2018 - Sep 2021 )

Thesis title: Homological Mirror Symmetry for Invertible Curve Singularities  
Subsequent position: Postdoc at Hamburg University.

Yin Li (Oct 2017 - May 2020 )

Thesis title: Koszul duality and categorical dynamics  
Subsequent position: Postdoc at Columbia University.

Doğancı Karabaş (Jan 2016 - Dec 2018)

Thesis title: Microlocal sheaves on Pinwheels  
Subsequent position(s): Postdoc at IBS-CGP and Northwestern University.

#### POSTDOCS

Yuhan Sun (Sep 2023 - )

Noah Porcelli (Sep 2022 - )

Timothy Magee (Sep 2020 - Aug 2021)

Sam Gunningham (Sep 2019 - Aug 2020)

## INVITED TALKS

- Feb 2008, Geometry Seminar, MIT, Cambridge (MA)  
*Wrinkled fibrations on near-symplectic manifolds*
- Apr 2008, Symplectic Geometry Seminar, Columbia University, New York (NY)  
*Wrinkled fibrations on near-symplectic manifolds*
- May 2008, Gökova Geometry/Topology Conference, Gökova (Turkey)  
*Wrinkled fibrations on near-symplectic manifolds*
- Nov 2008, Indiana-Illinois Symplectic Geometry Conference, Notre Dame Univ., Notre Dame (IN)  
*Wrinkled fibrations on near-symplectic manifolds*
- Nov 2008, Geometry/Topology Seminar, USC, Los Angeles (CA)  
*Broken Lefschetz fibrations and Floer theoretical invariants*
- Dec 2008, Geometry Topology Seminar, GaTech, Atlanta (GA)  
*Broken Lefschetz fibrations and Floer theoretical invariants*
- Jan 2009, Symplectic Geometry Seminar, Columbia University, New York (NY)  
*Heegaard Floer homology of broken fibrations*
- Mar 2009, Interactions of geometry and topology in low dimension, Banff (Canada)  
*Heegaard Floer homology of broken fibrations*
- May 2009, Georgia International Topology Conference, Athens (GA)  
*Heegaard Floer homology of broken fibrations*
- Jun 2009, Geometry Topology Seminar, Koç University, Istanbul (Turkey)  
*Heegaard Floer homology of broken fibrations*
- Sep 2009, Symplectic Geometry Seminar, MSRI, Berkeley (CA) (2 lectures)  
*Lagrangian matching invariants and Heegaard Floer homology*
- Apr 2010, Symplectic Geometry Seminar, Columbia University, New York (NY)  
*Lagrangian correspondences and three-manifold invariants*
- Apr 2010, Symplectic Geometry Seminar, Stony Brook University, New York (NY)  
*Lagrangian correspondences and three-manifold invariants*
- Apr 2010, Caltech-UCLA-USC Joint Geometry Seminar, Caltech, Pasadena (CA)  
*Lagrangian correspondences and three-manifold invariants*
- Jun 2010, Gökova Geometry/Topology Conference, Gökova (Turkey)  
*Quilted Floer homology of three-manifolds*
- Jul 2010, Workshop on Mirror Symmetry and Symplectic Geometry, MIT, Cambridge (MA)  
*Lagrangian correspondences and invariants of three-manifolds with boundary*
- Oct 2010, Low dimensional topology seminar, MPIM, Bonn (Germany)  
*Quilted Floer homology of three-manifolds*
- Oct 2010, Oberseminar Geometrie, MPI MiS, Leipzig (Germany)  
*Geometric composition in quilted Floer theory*
- Dec 2010, Gauge theory and topology seminar, Harvard University, Cambridge (MA)  
*Fukaya categories of the torus and Dehn surgery on three-manifolds*
- Jan 2011, Workshop on Symplectic and Contact Geometry, Uppsala (Sweden)  
*Fukaya categories of the torus and Dehn surgery on three-manifolds*
- Feb 2011, Differential geometry seminar, University of Cambridge, Cambridge (UK)  
*Fukaya categories of the torus and Dehn surgery on three-manifolds*
- Feb 2011, Geometry and topology seminar, University of Warwick, Coventry (UK)  
*Quilted Floer homology of three-manifolds*
- Mar 2011, Symplectic topology seminar, University of Montréal, Montréal (Canada)

*Fukaya categories of the torus and Dehn surgery on three-manifolds*

- Apr 2011, Symplectic Geometry Seminar, Columbia University, New York (NY)  
*Fukaya categories of the torus and Dehn surgery on three-manifolds*
- Jun 2011, Conference on Low-dimensional manifolds and high-dimensional categories,  
University of California , Berkeley (CA)  
*Fukaya category of the once-punctured torus*
- Jun 2011, Workshop on Homological Invariants in low-dimensional topology, Simons Center,  
Stony Brook (NY)  
*Fukaya category of the once-punctured torus*
- Jun 2011, Algebraic and Symplectic Geometry Seminar, University of Oxford, Oxford (UK)  
*Fukaya category of the once-punctured torus*
- Sep 2011, Glasgow Geometry and Topology Seminar, University of Glasgow, Glasgow (UK)  
*Heegaard Floer homology of broken fibrations*
- Nov 2011, Workshop on Circle-valued Morse theory and Alexander invariants, University of Tokyo,  
Tokyo (Japan) (3 lectures)  
*Heegaard Floer homology of broken fibrations*
- Nov 2011, Mathematics-String theory Seminar, IPMU, Kashiwanoha (Japan)  
*Fukaya category of the once-punctured torus*
- Dec 2011, Symplectic Geometry Seminar, ETH, Zurich (Switzerland)  
*Fukaya category of the once-punctured torus*
- Mar 2012, Geometry Seminar, UCL, London (UK)  
*Floer theoretically essential tori in rational blowdowns*
- Mar 2012, Differential geometry Seminar, University of Cambridge, Cambridge (UK)  
*Floer theoretically essential tori in rational blowdowns*
- Mar 2012, Geometric structures on manifolds, Banff (Canada)  
*Floer theoretically essential tori in rational blowdowns*
- May 2012, Colloquium, Durham University, Durham (UK)  
*Symplectic topology of Stein manifolds*
- May 2012, Gökova Geometry/Topology Conference, Gökova (Turkey)  
*Floer theoretically essential tori in rational blowdowns*
- Jun 2012, Oberwolfach Workshop, Wolfach (Germany)  
*Floer theoretically essential tori in rational blowdowns*
- Jul 2012, CAST Conference, Budapest (Hungary)  
*Symplectic topology of rational blowdowns*
- Jul 2012, Workshop on holomorphic curves, Stanford University, Palo Alto (CA)  
*Symplectic topology of rational blowdowns*
- Sep 2012, Geometry Seminar, Stony Brook University, Stony Brook (NY)  
*Arithmetic mirror symmetry for the 2-torus*
- Oct 2012, Geometry, Symmetry and Physics Seminar, Rutgers University, New Brunswick (NJ)  
*Arithmetic mirror symmetry for the 2-torus*
- Oct 2012, Geometry Topology Seminar, GaTech, Atlanta (GA)  
*The symplectic topology of some rational homology balls*
- Nov 2012, Symplectic Geometry Seminar, Caltech, Pasadena (CA)  
*Arithmetic mirror symmetry for the 2-torus*
- Nov 2012, Symplectic Geometry Seminar, IAS, Princeton (NJ)  
*Arithmetic mirror symmetry for the 2-torus*

Nov 2012, Symplectic Geometry Seminar, Columbia University, New York (NY)  
*Arithmetic mirror symmetry for the 2-torus*

Jan 2013, Special Colloquium, Rice University, Houston (TX)  
*Arithmetic mirror symmetry for the 2-torus*

Jan 2013, Departmental Colloquium, University of Illinois, Chicago (IL)  
*Arithmetic mirror symmetry for the 2-torus*

Jan 2013, Special Colloquium, University of California, San Diego (CA)  
*Arithmetic mirror symmetry for the 2-torus*

Feb 2013, Departmental Colloquium, University of Cambridge, Cambridge (UK)  
*Arithmetic mirror symmetry for the 2-torus*

Apr 2013, Geometry seminar, UCL, London (UK)  
*Arithmetic mirror symmetry for the 2-torus*

Apr 2013, Algebraic Geometry seminar, CUHK, Hong Kong (China) (3 lectures)  
*Arithmetic mirror symmetry for the 2-torus*

Sept 2013, Workshop on Mirror Symmetry and Cluster Algebras, Leeds (UK)  
*Equivariant Lagrangian branes and representations*

Oct 2013, Nantes-Orsay Seminar on symplectic and contact geometry, Nantes (FR)  
*Equivariant Lagrangian branes and representations*

Dec 2013, Geometry and Analysis Seminar, University of Oxford, Oxford (UK)  
*Floer cohomology and the Platonic solids*

Dec 2013, Differential geometry Seminar, University of Cambridge, Cambridge (UK)  
*Equivariant Lagrangian branes and representations*

Jan 2014, Geometry and Topology Seminar, Imperial College, London (UK)  
*Equivariant Lagrangian branes and representations*

Feb 2014, Symplectic Geometry Workshop, University of Warwick, Coventry (UK)  
*Floer cohomology and the Platonic solids*

Mar 2014, Geometry Seminar, University of Glasgow, Glasgow (UK)  
*Floer cohomology and the Platonic solids*

May 2014, Locally free geometry seminar, University of Amsterdam, Amsterdam (Netherlands)  
*On moduli of curves of genus 1 with  $n$  marked points*

July 2014, Geometry conference, National Cheng Kung University, Tainan (Taiwan)  
*Floer cohomology and the Platonic solids*

Sept 2014, Algebraic geometry seminar, UIC, Chicago (IL)  
*On moduli of curves of genus 1 with  $n$  marked points*

Sept 2014, Geometry, Topology and Dynamics seminar, UIC, Chicago (IL)  
*Equivariant Lagrangian branes and representations*

Oct 2014, Geometry/Physics Seminar, Northwestern University, Chicago (IL)  
*Equivariant Lagrangian branes and representations*

Oct 2014, Geometry/Physics Seminar, MIT, Cambridge (MA)  
*Equivariant Lagrangian branes and representations*

Feb 2015, Homotopy algebras Seminar, UIC, Chicago (IL)  
*Koszul duality patterns in Floer theory*

Mar 2015, Symplectic Geometry Seminar, Columbia University, New York (NY)  
*Koszul duality patterns in Floer theory*

Sep 2015, Workshop on Symplectic Topology and Geometry, Uppsala (Sweden)

*Koszul duality patterns in Floer theory*

- Oct 2015, Algebraic and Symplectic Geometry Seminar, Oxford (UK)  
*Generating the Fukaya categories of Hamiltonian  $G$ -manifolds*
- Nov 2015, Geometry and Topology Seminar, Glasgow (UK)  
*Koszul duality patterns in Floer theory*
- Nov 2015, Topology Seminar, Oxford (UK)  
*Koszul duality patterns in Floer theory*
- Dec 2015, Conference on Mirror Symmetry and Symplectic Geometry, Kyoto (Japan)  
*Koszul duality patterns in Floer theory*
- Dec 2015, Conference on Mirror Symmetry and Symplectic Geometry, Kyoto (Japan)  
*Generating the Fukaya categories of Hamiltonian  $G$ -manifolds*
- Jan 2016, M-seminar, KSU, Manhattan (KS)  
*Koszul duality patterns in Floer theory*
- Feb 2016, QMU Algebra seminar, London (UK)  
*Koszul duality patterns in Floer theory*
- Mar 2016, Conference on Mirror Symmetry and Wall-Crossing, Berkeley (CA)  
*Generating the Fukaya categories of Hamiltonian  $G$ -manifolds*
- Apr 2016, Conference on Symplectic Duality and Gauge Theory, Waterloo (Canada)  
*Koszul duality patterns in Floer theory*
- Apr 2016, MIST Workshop, CUHK, Hong Kong (China)  
*Koszul duality patterns in Floer theory*
- Apr 2016, MIST Workshop, CUHK, Hong Kong (China)  
*Generating the Fukaya categories of Hamiltonian  $G$ -manifolds*
- Apr 2016, Symplectic Geometry Seminar, Stony Brook University, New York (NY)  
*A modular compactification of  $\mathcal{M}_{1,n}$  from  $A_\infty$  structures and mirror symmetry for marked tori*
- May 2016, Geometry and Physics Seminar, IBS, Pohang (Korea)  
*Koszul duality patterns in Floer theory*
- May 2016, Geometry and Physics Seminar, IBS, Pohang (Korea)  
*Generating the Fukaya categories of Hamiltonian  $G$ -manifolds*
- Jun 2016, Symplectic Topology, Sheaves and Mirror symmetry Conference, Jussieu, Paris (France)  
*Associative Yang-Baxter equation and the Fukaya categories of square-tiled surfaces*
- July 2016, Workshop on Symplectic Field Theory VIII, Berlin (Germany)  
*A canonical basis of representations via Floer theory*
- Aug 2016, Workshop on Algebra, Combinatorics and Dynamics, Belfast (Northern Ireland)  
*Associative Yang-Baxter equation and the Fukaya categories of square-tiled surfaces*
- Oct 2016, Geometry seminar, Uppsala (Sweden)  
*Duality between Legendrian and Lagrangian invariants*
- Nov 2016, Algebra seminar, University of Warwick, Coventry (UK)  
*A canonical basis of representations via Floer theory*
- Nov 2016, Workshop on Symplectic Geometry, Università Degli Studi di Milano, Milan (Italy)  
*Floer cohomology and the Platonic solids*
- Jan 2017, UK-Japan Winter School, University College London (UK)  
*Duality between Lagrangian and Legendrian invariants*
- Mar 2017, EDGE Seminar, University of Edinburgh, Edinburgh (UK)  
*Fukaya categories of plumbings and multiplicative preprojective algebras*

- Apr 2017, Geometry Seminar, University of Cambridge, Cambridge (UK)  
*Shut up and calculate (Fukaya categories)*
- Jun 2017, Low dimensional topology on Skye, Isle of Skye (UK)  
*Mirror symmetry for punctured surfaces and Auslander orders*
- Jul 2017, Conference on Floer homology and homotopy theory, UCLA (CA)  
*Duality between Lagrangian and Legendrian invariants*
- Jul 2017, Conference on symplectic and algebraic geometry, University of Warwick, Coventry (UK)  
*Mirror symmetry for punctured surfaces and Auslander orders*
- Aug 2017, Conference on symplectic topology, Mittag-Leffler Institute (Sweden)  
*Mirror symmetry for punctured surfaces and Auslander orders*
- Nov 2017, Workshop on symplectic geometry and representation theory, Hausdorff Institute of Mathematics (Germany) (4 lectures)  
*Fukaya categories and their appearance in representation theory*
- Mar 2018, Geometry and Topology Seminar, Imperial College, London (UK)  
*Homological mirror symmetry for  $K3$  surfaces via moduli of  $A_\infty$  structures*
- Mar 2018, Conference on mirror symmetry and enumerative geometry, Berkeley (CA)  
*Homological mirror symmetry for  $K3$  surfaces via moduli of  $A_\infty$  structures*
- Oct 2018, Conference on representation theory of finite-dimensional algebra (Mexico) (2 lectures)  
*Fukaya categories and gentle algebras*
- Nov 2018, Conference on Noncommutative deformations, IPMU, Kashiwanoha (Japan)  
*Homological mirror symmetry for higher dimensional pants*
- Jan 2019, Conference on Mirror Symmetry and Related Topics, Miami (FL)  
*A fable on the Fargues-Fontaine curve*
- Mar 2019, Conference on Categorical Symplectic Topology, Cambridge (UK)  
*Homological mirror symmetry for higher dimensional pants*
- Apr 2019, Conference on Symplectic Representation Theory, CIRM (France)  
*Homological mirror symmetry for higher dimensional pants*
- Apr 2019, Conference on Special holonomy and calibrated geometry, Imperial College, London (UK)  
*Homological mirror symmetry for higher dimensional pants*
- Aug 2019, Conference on new structures in Algebraic and Symplectic Geometry, Toronto (Canada)  
*A symplectic look at the Fargues-Fontaine curve*
- Aug 2019, Conference on Fukaya category, Peking University (China)  
*A symplectic look at the Fargues-Fontaine curve*
- Aug 2019, Conference on Symplectic Topology, IMPA (Brazil)  
*A symplectic look at the Fargues-Fontaine curve*
- Oct 2019, Magic seminar, Imperial College, London (UK)  
*A symplectic look at the Fargues-Fontaine curve*
- Oct 2019, Symplectic geometry seminar, ETH Zurich (Switzerland)  
*A symplectic look at the Fargues-Fontaine curve*
- Nov 2019, Representation theory seminar, University of Bonn, Bonn (Germany)  
*The symplectic geometry of higher Auslander algebras*
- Nov 2019, Workshop on Singularities and Derived Categories, University of Sheffield, Sheffield (UK)  
*Homological mirror symmetry via categorical resolutions*
- Dec 2019, Conference on mirror symmetry, Kyoto Universtiy, Kyoto (Japan)  
*Homological mirror symmetry via categorical resolutions*



- Dec 2019, Conference on mirror symmetry, Kyoto Universtiy, Kyoto (Japan)  
*The symplectic geometry of higher Auslander algebras*
- Feb 2020, Geometry seminar, Glasgow (UK)  
*The symplectic geometry of higher Auslander algebras*
- Feb 2020, EDGE seminar, Edinburgh (UK)  
*Homological mirror symmetry for Milnor fibers via moduli of  $A_\infty$  structures*
- Feb 2020, Oberwolfach Workshop, Wolfach (Germany)  
*The symplectic geometry of higher Auslander algebras*
- Mar 2020, Algebra and Geometry seminar, University of Lancaster (UK)  
*The symplectic geometry of higher Auslander algebras*
- Mar 2020, Geometry seminar, University of Liverpool (UK)  
*The symplectic geometry of higher Auslander algebras*
- May 2020, Symplectix, Paris (France) (online lecture)  
*Computing symplectic cohomology via mirror symmetry*
- June 2020, D-brane categories and mirror symmetry, Beijing (China) (online lecture)  
*Computing symplectic cohomology via mirror symmetry*
- Oct 2020, Winter School JTP, Hausdorff Center for Mathematics, Bonn (Germany) (online lecture)  
*Homological mirror symmetry for not-so-simple singularities*
- Oct 2020, Symplectic geometry seminar, Mittag-Leffler Institute (Sweden)  
*A symplectic look at the Fargues-Fontaine curve*
- Apr 2021, ODTÜ-Bilkent Algebraic Geometry Seminar, Ankara (Turkey) (online lecture)  
*A panorama of mirror symmetry*
- Nov 2022, MAGIC Seminar, Imperial College London (UK)  
*Equivariant Fukaya categories at singular values*
- Dec 2022, M-seminar, KSU, Manhattan (KS) (online lecture)  
*Equivariant Fukaya categories at singular values*
- Feb 2023, Geometry and Analysis Seminar, University of Oxford (UK)  
*Equivariant Fukaya categories at singular values*
- Mar 2023, Geometry Seminar, University College London (UK)  
*Equivariant Fukaya categories at singular values*
- Aug 2023, Summers school on Higher Structures, Nordfjordeid, (Norway) (6 lectures)  
*Fukaya categories and symmetries*
- Mar 2024, BrAG (British algebraic geometry), Sheffield (UK)  
*New orders associated with terminal threefold singularities*

TEACHING  
 EXPERIENCE

- MSci, Commutative Algebra, Autumn (2023) (30 lectures), Imperial College London
- MSci, Commutative Algebra, Autumn (2022) (30 lectures), Imperial College London
- PhD, Topics in Geometry, Winter (2020), LSGNT
- MSci, Algebraic curves, Winter (2019) (22 lectures), King's College London
- MSci, Algebraic curves, Winter (2018) (22 lectures), King's College London
- MSci, Algebraic curves, Winter (2017) (22 lectures), King's College London
- Undergraduate, Prime numbers, Spring 2017 (12 lectures), King's College London
- Undergraduate, Prime numbers, Winter 2016 (12 lectures), King's College London
- PhD, Topics in Representation theory, Spring 2015 (42 lectures), UIC
- PhD, Algebraic Topology, Fall 2014 (42 lectures), UIC
- Undergraduate, Game theory, Winter 2014 (12 lectures), King's College London
- PhD, Symplectic topology of Stein manifolds, Lent 2013 (20 lectures), Cambridge.

Supervision, Geometry, King's College, Lent 2012 , University of Cambridge.  
Supervision, Galois theory, King's College, Michaelmas 2011 , University of Cambridge.  
Supervision, Geometry, King's College , Lent 2011 , University of Cambridge.  
Undergraduate class, Single variable calculus (18.01), Winter 2009, MIT.  
Teaching Assistant/Recitation Instructor, Linear Algebra, Fall 2007, MIT.  
Research advisor, Summer 2006, RSI, MIT. Subject: Enumerative Tropical Geometry.  
Teaching Assistant, Algebraic Geometry, Fall 2006, MIT.

OTHER  
PROFESSIONAL  
ACTIVITIES

*Editorial/Referee:* Editorial board member of Journal of Topology 2024-  
Serve regularly as a referee for various journals including Geom. Topol., Selecta Math., Comp. Math.,  
J. of Topology, Duke Math. J., GAFA, Invent. Math., J. of Symp. Geom.  
Served as a referee for the PhD defense of Dmitry Tonkonog (Cambridge), Marco Marengon (Imperial),  
Alexandru Cioba (UCL), Laura Wakelin (Imperial), Soham Karwa(Imperial), Haiping Yang(Imperial),  
Riccardo Pedretti(UT Austin).

*Conference/Seminar Organization:*

Co-organizer of "Workshop on Symplectic Topology" (June. 2023), Imperial College London.  
Co-organizer of "Recent developments in Lagrangian Floer theory" (Mar. 2022),  
Simons Center for geometry and physics, Stony Brook University, New York (USA).  
Co-organizer of the online Freemath Seminar 2020–2022.  
Symplectic Cut Seminar, King's College London, 2015–2020.  
Co-organizer of KCL\UCL geometry seminar, 2016–2020  
Mathematics of String Theory (MOST) 2014, Conference, King's College London.  
Co-organized the Geometry, Topology and Dynamics Seminar, 2014-2015, UIC.  
Co-organized the Homotopy algebras Seminar, 2014-2015, UIC.

*Admissions Committee:*

Interviewed postdoctoral candidates at King's College London, 2020.  
Interviewed postdoctoral candidates at King's College London, 2018.  
Interviewed prospective undergraduates for admission to King's College, University of Cambridge.  
Interviewed prospective graduate students for admission to London School of Geometry and Topology  
(King's College London, University College London, Imperial College London) 2014 & 2016.  
Served as a member of the tenured/tenure-track faculty hiring committee, 2014-2015, UIC.  
Postgraduate admissions committee, King's College London. 2016-2018.

*MSc/MSci thesis / LSGNT projects supervised:*

Denny Marcus, Dehn surgery in the 3-sphere, 2017 (King's).  
Daniel Lowe, Ramified coverings and polygon gluing, 2018 (King's).  
Ilaria Di Dedda, Geometric invariants of gentle algebras, 2018 (King's).  
Matthew Habermann, A Calculation of Hochschild Cohomology for Weierstraß Curves, 2018 (LSGNT).  
Samuel Stark, Homological Mirror Symmetry for the quartic surface, 2018 (LSGNT).  
Kaihan Amirzai, Computing the continuous discreetly, 2019 (King's).  
Scott James, Triangulations of the cyclic polytopes, 2020 (King's).  
Wojtek Wawrow - Wei Zhou, Fargues-Fontaine curve via symplectic geometry, 2021 (LSGNT).  
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