## Yusuf Barış Kartal

CONTACT INFORMATION	School of Mathematics University of Edinburgh Peter Guthrie Tait Road Edinburgh, EH9 3FD United Kingdom	l.ac.uk	
FIELDS OF INTEREST	Symplectic topology, mirror symmetry, homotopy theory, non-commutative geometry algebraic geometry		
Employment	University of Edinburgh, Research associate Princeton University, Instructor of Mathematics	Sept 2022– 2019-2022	
EDUCATION	Massachusetts Institute of Technology	2014-2019	
	Ph.D. in Mathematics		
	<ul> <li>Dissertation topic: Distinguishing open symplectic mapping tori via their wrapped Fukaya categories</li> <li>Advisor: Paul Seidel</li> <li>Exchange scholar at Princeton University (Spring 2017) and Columbia University (Fall 2017)</li> </ul>		
	Middle East Technical University	2009-2014	
	B.S. in Mathematics		
	<ul> <li>GPA: 4.00/4.00</li> <li>Exchange student at UC Berkeley (2012-2013)</li> </ul>		
Papers and Preprints	<ul> <li>Y. B. Kartal, Dynamical invariants of mapping torus categories, Advances in Mathematics 389 (2021) 107882.</li> <li>Y. B. Kartal, Distinguishing open symplectic mapping tori via their wrapped Fukaya categories, Geometry &amp; Topology 25 (2021) 1551-1630.</li> <li>Y. B. Kartal, Iterations of symplectomorphisms and p-adic analytic actions on Fukaya</li> </ul>		
	category, submitted, arXiv:2008.08566.		
	L. Côté and Y. B. Kartal, Categorical action filtrations via localization and the filtration growth as a symplectic invariant, Journal für die reine und angewandte Mathematik (Crelles Journal) (2023).		
	<ul> <li>Y. B. Kartal, Algebraic sheaves of Floer homology groups via algebraic torus actions on the Fukaya category, arXiv:2109.12256.</li> <li>L. Côté and Y. B. Kartal, Equivariant Floer homotopy via Morse-Bott theory, arXiv:2309.15089.</li> </ul>		
Expository Papers	Y. B. Kartal, A Survey of Singular Reduction, available at https://math.berkeley.edu/ alanw/kartalsurvey.pdf.		
Invited Talks	CMSA Mathematical Physics Seminar, Harvard Berkeley Topology Seminar Stanford Symplectic Geometry Seminar Harvard Student/Postdoc Symplectic Geometry Seminar Columbia Symplectic Geometry, Gauge Theory, and Categorifica- tion Seminar Informal Seminar at King's College London	Nov 13, 2017 Oct 3, 2018 Oct 8, 2018 Oct 12, 2018 Oct 19, 2018 Oct 23, 2018	

	Cambridge Algebraic Geometry Seminar IAS/Princeton Symplectic geometry seminar, Princeton CMSA Mathematical Physics Seminar, Harvard Stony Brook Symplectic Geometry Seminar USC Geometry&Topology Seminar Current Trends in Symplectic Topology, Montréal Conference on Fukaya Category and Homological Mirror Symmetry, Beijing	Oct 24 2018 Nov 12, 2018 Nov 19 2018 Feb 14, 2019 Apr 19, 2019 July 11, 2019 Aug 15, 2019
	Rutgers geometry symmetry and physics seminar (online) Free Mathematics Seminar (online) UCGEN (Uluslarası Cebirsel Geometri Neşesi) (online) Western Hemisphere Virtual Symplectic Seminar (online) Symplectic Zoominar (CRM-Montréal, Princeton/IAS, Tel Aviv, and Paris) (online)	June 11, 2020 Aug 4, 2020 Aug 26, 2020 Oct 23, 2020 Feb 5, 2021
	RANT (Representation and Number Theory Seminar) (online, Hong Kong time)	Feb 9, 2021
	EDGE (Edinburg Hodge Seminar) (online) HUJI Topology and geometry seminar (online) USC Topology seminar Recent developments in Lagrangian Floer theory, Simons Center Joint Mathematics Meetings: AMS Special Session on Quantum	Apr 28, 2021 Nov 9, 2021 Mar 7, 2022 Mar 16, 2022 Apr 6, 2022
	Categorical Structures in Mirror Symmetry (online) University of Maryland Informal geometric analysis seminar Symplectic versus algebraic geometry, Warwick (online talk) The London geometry and topology seminar EDGE seminar, Edinburgh	Apr 26, 2022 Jun 1, 2022 Oct 28, 2022 Dec 7, 2022
	Yeditepe mathematics seminars (online talk) Feza Gürsey Center for Physics and Mathematics Higher Structures Seminars (online talk)	Dec 16, 2022 Feb 21, 2023
	Columbia Symplectic Geometry, Gauge Theory, and Categorification Seminar (online talk)	Apr 21, 2023
	Scottish topology seminar, Aberdeen Gökava geometry and topology conference, Gökova Bonn symplectic geometry seminar, Bonn	May 3, 2023 Jun 2, 2023 Sept 12, 2023
TEACHING	University of Edinburgh MATH10079 (Group theory, with David Jordan) Princeton University	Fall 2023
	MAT201 (Multivariable calculus)	2019-2020, Spring 2022
	MAT469 (Advanced topology) MAT202 (Linear Algebra)	Fall 2020 Spring 2021, Fall 2021
	MIT Recitation instructor for 18.01 (Calculus) Recitation instructor for 18.03 (Differential equations)	Fall 2016 Spring 2018
MENTORING	Research Science Institute mentor (high school research program) for Aknazar Kazhymurat	Summer 2018
Honours and Awards	Akamai Presidential Graduate Fellowship METU highest ranking student of the graduating class METU Outstanding Success Scholarship TÜBİTAK Turkish Science and Research Council Scholarship	2014—2015 2014 2009—2014 2009—2014

Türkiye İş Bankası Golden Youth Award, due to success in Uni- 2009

versity Entrance Examination

ORGANIZATIONAL ACTIVITIES

Co-organizer for the Princeton/IAS joint symplectic seminar 2021-2022 Co-organizer for the Symplectic Zoominar (CRM-Montréal, Prince-2020-2021

ton/IAS, Tel Aviv, and Paris)

Organizer for the symplectic preprint seminar (Edinburgh) Spring 2023 Co-organizer for the EDGE Geometry Seminar (Edinburgh) 2023-2024

LANGUAGES Turkish (Native), English (Fluent), Persian (Beginner)

CITIZENSHIP Turkey