Yusuf Barış Kartal

CONTACT INFORMATION	School of Mathematics University of Edinburgh Peter Guthrie Tait Road Edinburgh, EH9 3FD United Kingdom	`Email:ykartal@ed.ac.uk`

FIELDS OF INTEREST

Symplectic topology, mirror symmetry, categorical dynamics, non-commutative geometry, algebraic geometry

EMPLOYMENT		
	University of Edinburgh, Research associate	Sept 2022–
	Princeton University, Instructor of Mathematics	2019-2022

EDUCATION

Massachusetts Institute of Technology — 2014-2019

Ph.D. in Mathematics

- Dissertation topic: Distinguishing open symplectic mapping tori via their wrapped Fukaya categories
- Advisor: Paul Seidel
- Exchange scholar at Princeton University (Spring 2017) and Columbia University (Fall 2017)

Middle East Technical University — 2009-2014

B.S. in Mathematics

- GPA : 4.00/4.00
- Exchange student at UC Berkeley (2012-2013)

PAPERS AND PREPRINTS

Y. B. Kartal, *Dynamical invariants of mapping torus categories*, Advances in Mathematics 389 (2021) 107882.

Y. B. Kartal, *Distinguishing open symplectic mapping tori via their wrapped Fukaya categories*, Geometry & Topology 25 (2021) 1551-1630.

Y. B. Kartal, *Iterations of symplectomorphisms and p-adic analytic actions on Fukaya category*, submitted, arXiv:2008.08566.

L. Côté and Y. B. Kartal, *Categorical action filtrations via localization and the filtration growth as a symplectic invariant*, submitted, arXiv:2108.05938.

Y. B. Kartal, *Algebraic sheaves of Floer homology groups via algebraic torus actions on the Fukaya category*, arXiv:2109.12256.

EXPOSITORY PAPERS

Y. B. Kartal, *A Survey of Singular Reduction*.

INVITED TALKS		
	CMSA Mathematical Physics Seminar, Harvard	Nov 13, 2017
	Berkeley Topology Seminar	Oct 3, 2018
	Stanford Symplectic Geometry Seminar	Oct 8, 2018
	Harvard Student/Postdoc Symplectic Geometry Seminar	Oct 12, 2018
	Columbia Symplectic Geometry, Gauge Theory, and Categorification Seminar	Oct 19, 2018
	Informal Seminar at King's College London	Oct 23, 2018
	Cambridge Algebraic Geometry Seminar	Oct 24 2018
	IAS/Princeton Symplectic geometry seminar, Princeton	Nov 12, 2018
	CMSA Mathematical Physics Seminar, Harvard	Nov 19 2018
	Stony Brook Symplectic Geometry Seminar	Feb 14, 2019

	USC Geometry&Topology Seminar	Apr 19, 2019
	Current Trends in Symplectic Topology, Montréal	July 11, 2019
	Conference on Fukaya Category and Homological Mirror Symmetry, Beijing	Aug 15, 2019
	Rutgers geometry symmetry and physics seminar (online)	June 11, 2020
	Free Mathematics Seminar (online)	Aug 4, 2020
	UCGEN (Uluslarası Cebirsel Geometri Neşesi) (online)	Aug 26, 2020
	Western Hemisphere Virtual Symplectic Seminar (online)	Oct 23, 2020
	Symplectic Zoominar (CRM-Montréal, Princeton/IAS, Tel Aviv, and Paris) (online)	Feb 5, 2021
	RANT (Representation and Number Theory Seminar) (online, Hong Kong time)	Feb 9, 2021
	EDGE (Edinburg Hodge Seminar) (online)	Apr 28, 2021
	HUJI Topology and geometry seminar (online)	Nov 9, 2021
	USC Topology seminar	Mar 7, 2022
	Recent developments in Lagrangian Floer theory, Simons Center	Mar 16, 2022
	Joint Mathematics Meetings: AMS Special Session on Quantum Categorical Structures in Mirror Symmetry (online)	Apr 6, 2022
	University of Maryland Informal geometric analysis seminar	Apr 26, 2022
	Symplectic versus algebraic geometry, Warwick (online talk)	Jun 1, 2022

TEACHING	**Princeton University**	
	MAT201 (Multivariable calculus)	2019-2020, Spring 2022
	MAT469 (Advanced topology)	Fall 2020
	MAT202 (Linear Algebra)	Spring 2021, Fall 2021
	MIT	
	Recitation instructor for 18.01 (Calculus)	Fall 2016
	Recitation instructor for 18.03 (Differential equations)	Spring 2018

MENTORING	Research Science Institute mentor (high school research program) for Aknazar Kazhymurat	Summer 2018

HONOURS AND AWARDS	Akamai Presidential Graduate Fellowship	2014—2015
	METU highest ranking student of the graduating class	2014
	METU Outstanding Success Scholarship	2009—2014
	TÜBİTAK Turkish Science and Research Council Scholarship	2009—2014
	Türkiye İş Bankası Golden Youth Award, due to success in University Entrance Examination	2009

ORGANIZATIONAL ACTIVITIES	Co-organizer for Princeton/IAS joint symplectic seminar	2021-2022
	Co-organizer for Symplectic Zoominar (CRM-Montréal, Princeton/IAS, Tel Aviv, and Paris)	2020-2021

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

CITIZENSHIP	Turkey	