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.
Shaoyun Bai, L. Côté and Y. B. Kartal, *Morse-Bott flow categories and cyclotomic structures in closed string Floer theory*, in progress.

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
	The London geometry and topology seminar	Oct 28, 2022
	EDGE seminar, Edinburgh	Dec 7, 2022
	Yeditepe mathematics seminars (online talk)	Dec 16, 2022
	Feza Gürsey Center for Physics and Mathematics Higher Structures Seminars (online talk)	Feb 21, 2023
	Columbia Symplectic Geometry, Gauge Theory, and Categorification Seminar (online talk)	Apr 21, 2023
	Scottish topology seminar, Aberdeen	May 3, 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