Ben Lund

Institute for Basic Science
Discrete Mathematics Group (DIMAG)
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Education

Ph.D., Rutgers University, 2017. Adviser: Shubhangi Saraf.

M.S., University of Cincinnati, 2012. Adviser: George Purdy.

Experience

Senior researcher, IBS, DIMAG, Aug. 2020-present. PI: Sang-il Oum

NSF mathematical sciences postdoc, Princeton University, Sept. 2018-July 2020. Adviser: Zeev Dvir

RTG postdoc, University of Georgia, Sept. 2017- Sept. 2018. Adviser: Giorgis Petridis.

Renyi Institute, Sept.-Dec., 2015. Adviser: Imre Bárány.

IPAM, Algebraic Techniques for Computational and Combinatorial Geometry, Mar.-Jun., 2014.

Publications

Preprints

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Journal articles

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Conference abstracts

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Teaching

Instructor, Graph Theory, University of Georgia, Spring 2018.

Instructor, Multivariable Calculus, University of Georgia, Fall 2017.

Instructor, Discrete Structures 1, Rutgers, Summer 2016.

TA for Bahman Kalantari, Rutgers, Spring 2015, 2016, 2017.

Awards and distinctions

NSF Mathematical Sciences Postdoctoral Research Fellow, 2018-2020.

Heidelberg Laureate Forum delegate, 2015.

Rizvi family prize (awarded by computer science department of Rutgers), 2015.

Top Coder Open 2nd place, Design track, 2007.

Talks and presentations

2023

IBS discrete mathematics seminar, Dec, *Almost spanning distance trees in subsets of finite vector spaces*

Chungbuk National University Mathematics Colloquium, Sept, Almost spanning distance trees in subsets of finite vector spaces

The Korea-Taiwan-Vietnam Joint Meeting on Discrete Geometry and Geometric Measure Theory, Jul, Almost spanning distance trees in subsets of finite vector spaces

JMM Special session on distance problems in continuous, discrete, and finite field settings, Jan, Radial projections in finite vector spaces

2022

IBS discrete mathematics seminar, Mar, *Thresholds for incidence properties in finite vector spaces*

IBS discrete mathematics seminar, Jun, *Radial projections in finite vector spaces*

2021

IBS discrete mathematics seminar, Nov, *Maximal 3-wise intersecting families*

Young researchers in extremal and probabilistic combinatorics, *Maximal 3-wise intersecting families*

TCS Seminar, IIT Bombay, *Simple proofs for Furstenberg sets*

Moscow conference on combinatorics and applications, *Finite field Kakeya and Furstenberg sets*

IBS discrete mathematics seminar, May, *Limit shape of lattice zonotopes*

Build a network of young researchers in mathematics 1, *Kakeya and Furstenberg sets over fininte fields*

IBS discrete mathematics seminar, Jan, *Perfect matchings and derangements on graphs*

2020

IBS discrete mathematics seminar, Jan

SUNY Korea CS Colloquium, Oct

IBS discrete mathematics seminar, Aug

2018

NYC Discrete geometry seminar, Fall

Princeton discrete math seminar, Fall

Courant institute geometry seminar, Spring

2017

Oberwolfach workshop on discrete geometry 1715

University of Georgia, Analysis and Combinatorics Seminar, Spring and Fall

University of Georgia, Number Theory Seminar, Spring and Fall

University of Georgia, Geometry Seminar, Fall

2016

University of Rochester combinatorics seminar

First Vietnam Workshop on Graph Theory and Discrete Geometry

California Institute of Technology combinatorics seminar

Kent State Informal Analysis Seminar (Poster presentation)

Courant Institute geometry seminar

2015

Renyi Institute extremal combinatorics seminar

Renyi Institute geometry seminar

31st International Symposium on Computational Geometry

Courant Institute geometry seminar

2014

Princeton discrete math seminar

IPAM Algebraic techniques for combinatorial and computational geometry culminating workshop

IPAM Algebraic techniques for combinatorial and computational geometry seminar series

Service

Organizer for 2024 IBS-DIMAG workshop on combinatorics and geometric measure theory

Organizer for DIMAG/ECOPRO lunchtime seminar series (Aug. 2023-present)

Referee for Advances in Combinatorics, Discrete & Computational Geometry, Combinatorica, Pacific Journal of Mathematics, The Electronic Journal of Combinatorics, Discrete Analysis, Discrete Mathematics, Foundations of Computer Science (FOCS), Symposium on Computational Geometry (SoCG), Finite fields and their applications, Computational geometry: Theory and applications, European Journal of Combinatorics

References

Shubhangi Saraf, Associate professor of mathematics and computer science, University of Toronto, shubhangi.saraf@utoronto.ca

Giorgis Petridis, Associate professor of mathematics, University of Georgia, petridis@uga.edu

Zeev Dvir, Associate professor of mathematics and computer science, zdvir@cs.princeton.edu

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`http://www.ben-lund.com/CV.pdf`