

Department of Mathematics, BGU

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# BGU Probability and Ergodic Theory (PET) seminar

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*On Thursday, March ,30 2023*

*At 11:10 – 12:00*

*In 101-*

Thomas Ng (Technion - Israel Institute of Technology)

will talk about

## **Actions of random quotients on hyperbolic CAT(0) cube complexes**

Abstract: Combinatorial nonpositive curvature of CAT(0) cube complexes plays a surprising role both in topological characterization of hyperbolic 3-manifolds and also in studying algebraic properties of random groups.

With Einstein, Krishna MS, Montee, and Steenbock, we introduce a new model for random quotients of free products that generalizes Gromov's destiny model. I will discuss challenges that arise in this new setting, connections to work of Futer-Wise and Martin-Steenbock on cubulating quotients, as well as applications to residual finiteness using recent work of Einstein and Groves on relative cubulation.