

EXTREMALITY OF DIAGONAL SECTIONS OF THE CUBE

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(Joint work with Gergely Ambrus)

In this talk, we study the volume of diagonal central hyperplane sections of the cube. We demonstrate that, apart from the minimal, maximal, and the main diagonal sections, no subdiagonal central sections of the cube have extremal volume. Our approach relies on estimates on the rate of decay of the Laplace-Pólya integral, which are established by purely combinatorial means based on recursive arguments.