



Seminar/Talk

Rate of convergence of empirical measures of hyperuniform point processes

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Host: Laszlo Erdős & Jan Maas

This talk is concerned with the empirical measure of a random point process in $\mathbb{R}^d$, such as the eigenvalues of a random matrix or a Coulomb gas. In several cases, this empirical measure converges towards a deterministic measure. In order to quantify the rate of convergence, we are interested in the p -Wasserstein distance between this random measure and its mean, particularly in dimension 2. We obtain a bound for this distance under some assumption on the p -th centered moment of the number of points in squares, which amounts to hyperuniformity when $p = 2$. In addition, hyperuniform determinantal point processes will satisfy the required assumptions for any $p \geq 1$. This is a joint work with Raphaël Butez (Université de Lille) and David García-Zelada (Sorbonne Université).

Monday, November 2, 2026 05:00pm - 06:00pm

Central Bldg / O1 / Mondi 2a (I01.O1.008)



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