



Du
29
JAN.
2022

10h00
-
11h00

SÉMINAIRE BOURBAKI

Alexandros Eskenazis — Average distortion embeddings, nonlinear spectral gaps, and a metric John theorem after Assaf Naor

IHP
Hermite

INSCRIPTION

In this lecture we shall discuss some geometric applications of the theory of nonlinear spectral gaps. Most notably, we will present a proof of a deep theorem of Naor asserting that for any norm $\|\cdot\|$ on $\mathbb{R}^d$, the metric space $(\mathbb{R}^d, \sqrt{\|x-y\|})$ embeds into Hilbert space with quadratic average distortion $O(\sqrt{\log d})$. As a consequence, we will deduce that any n -vertex expander graph does not admit a $O(1)$ -average distortion embedding into any $n^{o(1)}$ -dimensional normed space.

NB: A youtube link is available on bourbaki.fr

URL of the page: <https://www.ihp.fr/fr/agenda/alexandros-eskenazis-average-distortion-embeddings-nonlinear-spectral-gaps-and-metric-john>



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HORAIRES

L'institut :

- lundi au vendredi de 8h30 à 18h,
- fermé les jours fériés.

Le musée - Maison Poincaré :

- lundi, mardi, jeudi et vendredi de 9h30 à 17h30,
- samedi de 10h à 18h,
- fermé le mercredi et le dimanche.