



Du
29
JAN.
2022

09h00
-
10h00

SÉMINAIRE BOURBAKI

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

IHP
Hermite

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 (\mathbf{R}^d) , the metric space $(\mathbf{R}^d, \sqrt{\|x-y\|})$ 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](https://www.bourbaki.fr)

URL de la page : https://www.ihp.fr/fr/agenda/alexandros-eskenazis-average-distortion-embeddings-nonlinear-spectral-gaps-and-metric-john&is_pdf=true



INSTITUT HENRI POINCARÉ

11 rue Pierre et Marie Curie
75231 Paris Cedex 05

HORAIRES

Lundi au vendredi : 8h30 à 18h
Fermé les jours fériés