



Du
05
JUN.
2023

14h00
-
15h00

RENCONTRES DE THÉORIE ANALYTIQUE DES NOMBRES

Explicit (and improved) results on the structure of sumsets

Salle 201, IHP, Paris

INSCRIPTION

Let A be a finite set of integer lattice points in d dimensions, with NA being the set of all sums of N elements from A . In 1992 Khovanskii proved the remarkable result that there is a polynomial $P(N)$, depending only on A , such that the size of NA equals $P(N)$ exactly, once N is sufficiently large. Khovanskii's theorem shows that the sumset NA enjoys a certain size 'stability' property, and there is another related stability property pertaining to the structure of NA . But what does 'sufficiently large' mean in practice? In this talk I will discuss some perspectives on these questions, and explain joint work with A. Granville and G. Shakan which proves the first explicit bounds for all sets A . I will also discuss current work with Granville, which gives an optimal bound 'up to logarithmic factors'.

URL of the page: <https://www.ihp.fr/fr/agenda/explicit-and-improved-results-structure-sumsets>



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HORAIRES

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- lundi au vendredi de 8h30 à 18h,
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Le musée - Maison Poincaré :

- lundi, mardi, jeudi et vendredi de 9h30 à 17h30,
- samedi de 10h à 18h,
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