



## 复旦大学数学科学学院 数学综合报告会

报告题目: On Hausdorff dimension of the set of nonergodic directions

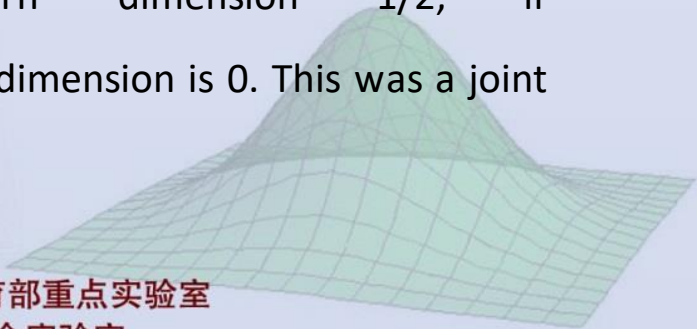
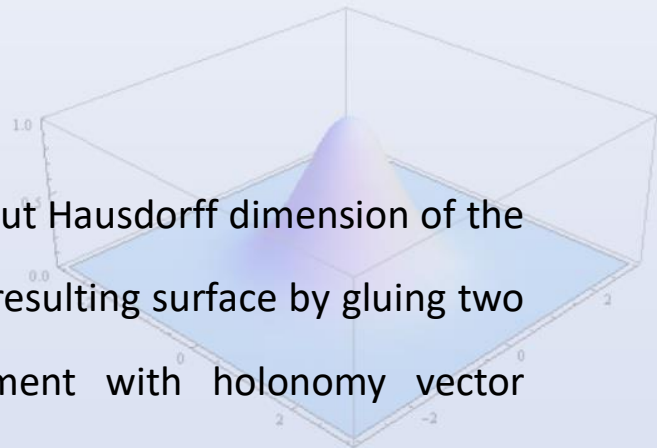
报告人: 黄炎 (河南大学)

时间: 2020-09-06 星期日 10:00-11:00

地点: 腾讯会议 ID: 656 940 706

报告摘要:

In this talk, we show a recent progress about Hausdorff dimension of the set of nonergodic directions. Let  $X$  be the resulting surface by gluing two copies of the flat torus along a segment with holonomy vector  $(\lambda, \mu)$  and let  $q_k$  be the sequence of best simultaneous approximation denominators to  $(\lambda, \mu)$ , related to any norm of  $\mathbb{R}^2$ . If  $q_{k+1} = O(q_k^N)$  for some  $N > 0$ , then the set of nonergodic directions in  $X$  has Hausdorff dimension  $1/2$ ; if  $\sum (\log \log q_{k+1}) / q_k = \infty$ , then the dimension is 0. This was a joint work with Yitwah Cheung.



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