



复旦大学数学科学学院 数学综合报告会

报告题目: Gromov hyperbolic graphs with hierarchical structures

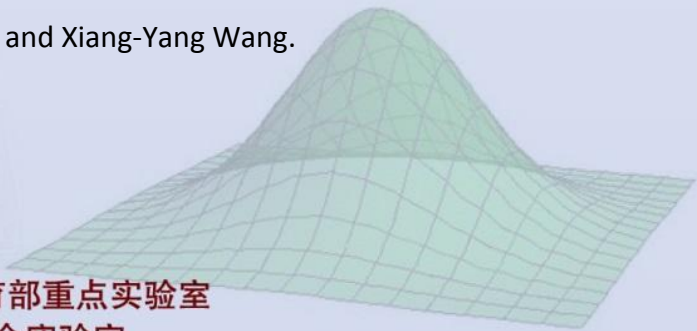
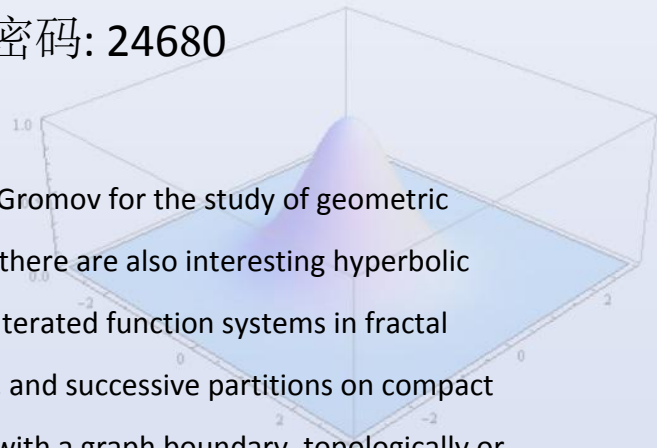
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报告摘要:

The notion of hyperbolic graphs was invented by M. Gromov for the study of geometric group theory. Without reference to any group structure, there are also interesting hyperbolic graphs arising from various subjects, such as contractive iterated function systems in fractal geometry, generalized dyadic cubes in harmonic analysis, and successive partitions on compact metrizable spaces; each object in these cases is identified with a graph boundary, topologically or bi-Lipschitz equivalently. In this talk, we consider a class of hyperbolic graphs endowed with certain level functions, on which the Gromov distances (visual metrics) can be bounded or unbounded. To extend the consideration in previous study, we also introduce the notion of index triple to identify a complete proper metric space with the geodesic boundary of a graph in that class. This is based on some joint work with Ka-Sing Lau and Xiang-Yang Wang.



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