



Analysis and PDE Seminar

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TITLE: Nikodym sets for spheres and related maximal functions

Date : Dec 13th, 2023 (Wednesday)

Time : 10am-11am (Hong Kong time)

11am-12noon (Korea time)



Link to ZOOM : <https://unist-kr.zoom.us/j/3170659442>

Meeting ID : 317 065 9442

Password : APDE21

Abstract. Any set containing a sphere centered at every point cannot have 0 Lebesgue measure. This is a consequence of the L^p boundedness of the spherical maximal function. On the other hand, there are sets of 0 Lebesgue measure which contain a large family of spheres, which may be considered as Nikodym sets for spheres. In this talk, I will introduce these sets, associated averaging operators and maximal functions, and discuss their L^p mapping properties.

All are welcome

This is a joint activity organized by Department of Mathematics, The Chinese University of Hong Kong, Hong Kong; Department of Mathematics, Institute of Mathematical Research, Research Division of Mathematical and Statistical Science, The University of Hong Kong, Hong Kong; and Department of Mathematical Sciences, Ulsan National Institute of Science and Technology, Korea. More details can be found in https://hkumath.hku.hk/~imr/event/CUHK_HKU_UNIST_Analysis_and_PDE/index.php.

