


复旦大学数学科学学院
数学综合报告会

报告题目：Some Aspects of Projective Spectrum

报告人：Prof. Rongwei Yang (Dept. of Mathematics and Statistics, SUNY at Albany)

时间：2021-08-02—2021-08-06 星期一—星期五 9:00-10:00

地点：腾讯会议：791 4178 3313，密码：888888

报告摘要：

Finitely generated structures are important subjects of study in various mathematical disciplines. Examples include finitely generated groups, Lie algebras and C*-algebras, etc. It is thus a fundamental question whether there exists a universal mechanism in the study of these vastly different entities. In 2009, the notion of projective spectrum for several elements (A1,…, An) in a unital Banach algebra B was defined through the multiparameter pencil A(z) = z1A1 + … + znAn; z∈Cn. This conspicuously simple definition turned out to have a surprisingly rich content. This series of 5 talks aims to give an introduction to this theory. The topics in each talk are as follows.

1) Definitions, examples and some general facts.

2) Maurer-Cartan form and the topology of resolvent set.

3) Hermitian metrics on resolvent set and geometric properties

4) Tuple of compact operators and kernel bundle

5) Application to group representations and a link with complex dynamics

The talks are self-contained and friendly to graduate students.

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