



## 复旦大学数学科学学院 数学综合报告会

报告题目: Symmetric spaces for groups over involutive algebras and applications

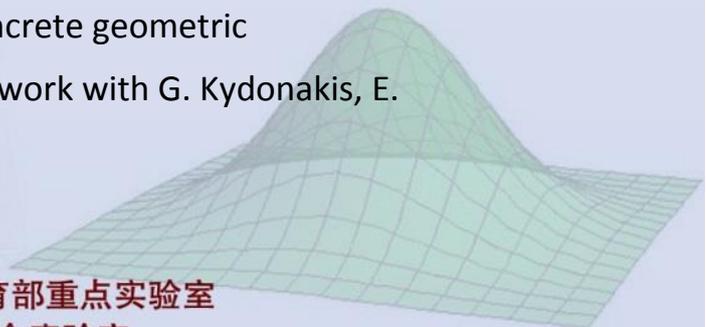
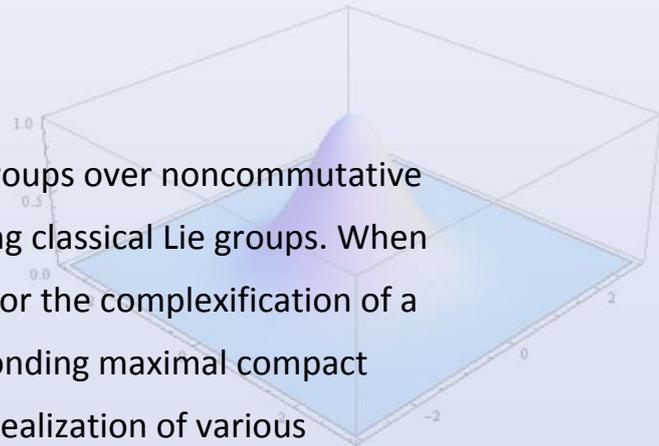
报告人: 黄鹏飞 (南京大学数学学院)

时间: 2026-03-26 星期四 14:30--15:30

地点: 光华楼东主楼2001

报告摘要:

Symplectic groups and (indefinite) orthogonal groups over noncommutative involutive algebras provide a new way of realizing classical Lie groups. When in particular, the involutive algebra is Hermitian or the complexification of a Hermitian algebra, one can identify the corresponding maximal compact subgroups. This new perspective allows for the realization of various geometric models for the symmetric space of these groups. In this talk, we will illustrate these ideas and describe the tangent spaces for each of the models, as well as the application to the interpretation of Higgs bundles. If time permits, we will also talk about a factorization of the Hitchin morphism in terms of these models, which provides a concrete geometric interpretation of the Hitchin base. This is joint work with G. Kydonakis, E. Rogozinnikov and A. Wienhard.



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