报告题目：Non-commutative and Generalized Fa\`a di Bruno Hopf algebras
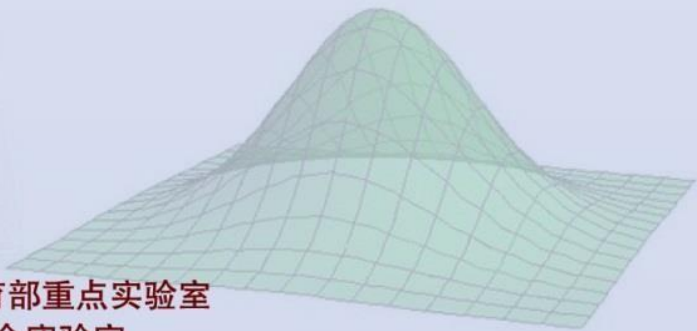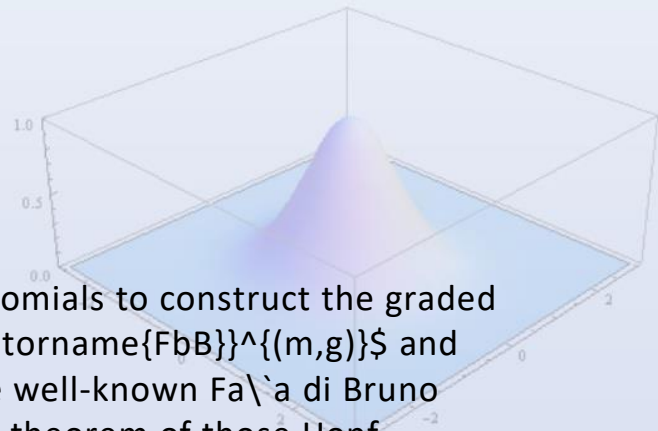
报告人：张印火 教授 (Hasselt University， Belgium)

时间：2023-07-27 星期四 10:00 - 11:00

地点：光华楼东主楼2201室

报告摘要：

We introduce the (m,g,a_{0})-Bell polynomials to construct the graded pointed Hopf algebras $\mathcal{H}_{\operatorname{FbB}}^{(m,g)}$ and their Hopf Ore extensions, which contain the well-known Fa\`a di Bruno Hopf algebra. We then give the isomorphism theorem of those Hopf algebras and study their Hopf subalgebras. The noncommutative versions of $\mathcal{H}_{\operatorname{FbB}}^{(1,g_{1}^{r})}$ are determined. Finally, we use some special Lyndon words to construct several free bialgebras containing some basic combinatorial bialgebras and the noncommutative Fa\`a di Bruno bialgebra as quotients.

非线性数学模型与方法教育部重点实验室
中法应用数学国际联合实验室
上海市现代应用数学重点实验室
复旦大学数学研究所