



复旦大学数学科学学院 数学综合报告会

报告题目: Periods and de Rham-Betti Groups of Abelian Varieties.

报告人: 吉泽坤 (中国科学技术大学)

时间: 2026-09-11 星期五 15:00-17:00

地点: 光华楼东主楼1601

报告摘要:

The theory of de Rham-Betti (dRB) structures and groups was introduced by André to study polynomial relations among the periods of smooth projective varieties over $\overline{\mathbb{Q}}$, within the framework of Grothendieck's period conjecture. In this talk, I will focus on the case of abelian varieties. Much of our current knowledge about their dRB structures relies on Wüstholz's powerful Analytic Subgroup Theorem. I will explain both the role of this theorem and its limitations in detecting relations among periods. In the second part of the talk, inspired by the work of Kreutz, Shen, and Vial, I will outline a strategy for determining the dRB groups of type IV abelian fourfolds, despite our limited knowledge of the relations among their periods. This talk is based on the preprint <https://arxiv.org/abs/2607.23171>

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