



复旦大学数学科学学院 数学综合报告会

报告题目: **Automorphism and Cohomology**

报告人: Dr. Xuanyu Pan

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报告时间: 2015-12-25 星期五 15:00-16:00

报告地点: 光华东主楼 1501

摘要: In this talk, I will talk about the work of mine and joint work with Xi Chen and Dingxing Zhang on automorphism and cohomology of Fano varieties of lines of cubics and complete intersections. More precisely, we prove the automorphism groups act faithfully on the co-homology groups. As a result, we classify the automorphism groups of cubic fourfolds of small Hodge groups. The proof involves equivariant Kodaira Spencer map, equivariant deformations, Hyperkaehler structure on Fano variety of lines, Bloch's semi-regularity in mixed characteristic, vanishing cycles and lattice theory. At the end, I will talk about the work of infinitesimal Torelli theorem in positive characteristic.

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