K3 surface entropy and automorphism groups

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In this talk, we give a characterization of the complex projective K3 surfaces admitting automorphisms of positive entropy and we explain how to classify the projective K3 surfaces of zero entropy with infinite automorphism groups. As an application, we determine the projective K3 surfaces of Picard number at least five with almost abelian automorphism groups. This answers a question of Nikulin.

报告人简介：余讯，天津大学教授，国家级青年人才，主要从事代数几何的研究。在代数曲面的自同构与复动力系统和数论的密切联系、有理射影流形的自同构群与实形式、Calabi-Yau 三流形的拓扑分类等研究领域取得了系列成果。相关成果在《Duke Math. J.》、《J. Reine Angew. Math.》、《J. Algebraic Geom.》、《Math. Ann.》、《IMRN》、《Algebraic Geom.》等期刊上发表。曾获 2019 年《日本数学会杂志》优秀论文奖。