Lecture 1: What Determines a Variety?

Speaker: János Kollár
Princeton Un.

Time: Thu, Apr. 30, Beijing Time 20:30-21:30
New York Time 8:30-9:30
Greenwich Mean Time: 12:30-13:30

Lecture 2: K-stability and Moduli of Fano Varieties

Speaker: Chenyang Xu
MIT

Time: Thu, Apr. 30, Beijing Time 21:40-22:40
New York time 9:40-10:40
Greenwich Mean Time: 13:40-14:40

Zoom Meeting Id: 92976846244
Password: 200430
Link: https://zoom.com.cn/j/92976846244
Lecture 1

Abstract: A scheme $X$ is a topological space---which we denote by $|X|$---and a sheaf of rings on the open subsets of $|X|$. We study the following natural but seldom considered questions. How to read off properties of $X$ from $|X|$? Does $|X|$ alone determine $X$? Joint work with Max Lieblich, Martin Olsson, and Will Sawin.

Lecture 2

Abstract: There has been tremendous progress of algebraic K-stability theory of Fano varieties in the recent years. One main topic is to use it to construct moduli spaces, called K-moduli. Several main ingredients have been established, based on the development within the K-stability theory as well as other parts of algebraic geometry e.g. MMP, stack theory etc. In this talk, we will sketch the people’s progress of understanding K-stability and then discuss how they are used in the construction of the moduli space.