校庆 *119* 周年暨第 *58* 届科学报告讨论会

Time：Tuesday, May 21st, 14:00-16:00

Venue: SCMS 102

Chair: Weixiao Shen (沈维孝)

Lecture 1   14:00-15:00   Speaker: Miaofen Chen(陈苗芬)

Title: P-adic period domains and Newton stratification in p-adic Hodge theory

Abstract: Griffiths studies the geometry of complex analytic period mappings and their images which are called period domains. In this talk, we study a p-adic analogue of this problem. The p-adic period domain is an open subspace inside the rigid analytic p-adic flag varieties introduced by Rapoport and Zink. It interpolates a family of crystalline representations. Newton stratification is a stratification on the rigid analytic p-adic flag varieties which has p-adic period domain as its unique open stratum. We will discuss some basic geometric properties of the p-adic period domains and the Newton stratification.

Lecture 2   15:00-16:00   Speaker: Jingjun Han (韩京俊)

Title: On polynomial equations

Abstract: Let $n \geq 2$ a natural number, d a positive even integer, $P_{n,d}$ the cone of nonnegative forms in R^n of degree d, and Δ the multivariate discriminant of the generic form of n variables and degree d. We show that $P_{n,d}$ equals to the closure of U in the Euclidean topology, where U is the unique open connected component of $\Delta \neq$ containing the non-negative polynomial $\sum_{i=1}^n x_i^d$.