

SCMS Seminar



ALGEBRAIC DYNAMICS OF THE LIFTS OF FROBENIUS

Speaker: Dr. Junyi Xie

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Time: 3:00 p.m.-4:00 p.m., Friday, November 4, 2016

Venue: Room 2201, East Guanghua Tower (Main), Fudan University

Abstract:

In this talk we study some questions in the algebraic dynamics for endomorphisms of projective spaces with coefficients in a p -adic field whose reduction in positive characteristic is the Frobenius. Our method is based on the theory of perfectoid spaces introduced by P. Scholze.

$$b_i = \frac{\sum_{j=1}^{i-1} a_{ij} x_j^{(k)} + \sum_{j=i+1}^n a_{ij} x_j^{(k)}}{\sum_{j=1}^{i-1} a_{ij} x_j^{(k)} + \sum_{j=i+1}^n a_{ij} x_j^{(k)}}$$

$$\Delta y_i = \int_{x_i}^{x_{i+1}} y' dx \frac{a_{ij} b_i - (\sum_{j=1}^{i-1} a_{ij} x_j^{(k)} + \sum_{j=i+1}^n a_{ij} x_j^{(k)})}{\sum_{j=1}^{i-1} a_{ij} x_j^{(k)} + \sum_{j=i+1}^n a_{ij} x_j^{(k)}}$$

$$\int_{x_k}^{x_{k+1}} f(x, y) dx = \int_{x_k}^{x_{k+1}} y' dx = y(x)$$

$$-\sqrt{(y_n + 0.5\tau k_1)^2 + (t_n + 0.5\tau)^2}$$