

Number theory, partitions, q -series and related research
($npqr^2$)

SEMINAR

Arithmetic Dynamics Vs. Arithmetic Geometry

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Date: 12th October 2015 (Monday)

Time: 3.30 – 4.30 pm

Venue: MME Journal Room, NIE7 #03-16

<http://math.nie.edu.sg/pctoh/Gettinghere.jpg>

Abstract:

Arithmetic Dynamics is a relatively new subject that combines Dynamical Systems and Number Theory. In particular, many notions in Arithmetic Dynamics have their counterparts in Arithmetic Geometry, such as preperiodic points vs. torsion points, rational and integral points in orbits vs. rational and integral points on varieties, height functions, modular curves, etc. This talk will focus on these analogies between Arithmetic Dynamics and Arithmetic Geometry. Due to a more general setting and lack of arithmetic structures, results in Arithmetic Dynamics are often harder to prove than their counterparts in Arithmetic Geometry and they often imply results in Arithmetic Geometry. This will be an introductory talk and thus no prior knowledge on Arithmetic Dynamics is required. However, some basic knowledge on Arithmetic Geometry, especially on elliptic curves will be assumed and it helps you to appreciate the motivation of the talk.

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