

ALGEBRAIC GEOMETRY AND COMMUTATIVE ALGEBRA SEMINAR

Speaker: Andrei Jorza
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Date: Tuesday, April 19, 2022

Time: 2:30 PM

Location: 258 Hurley Hall

Zoom URL: NA

Lecture Title:

What can you tell about a modular form from its second Fourier coefficient?

Abstract

The Fourier coefficients of modular forms which are eigenvectors of Hecke operators encode an enormous amount of arithmetic information. In general automorphic setting, Hecke eigenvalues determine the automorphic representation uniquely, even if you lose a positive proportion of the eigenvalues. In the case of classical modular forms of level 1, it is conjectured that just the coefficient a_2 suffices to define the modular form uniquely. I will present two papers with Liubomir Chiriac about the coefficients a_2 , which bridge the world of 2-adic modular forms and that of linear approximations of logarithms.