

Speaker: William Duke

Title: On a theorem of Legendre

Abstract: I will explain that the primitive zeros of certain indefinite ternary quadratic forms fall into a single orbit under automorphs of the form. One ingredient in the proof is a characterization and count of classes of zeros of the form consisting primitive triples of Gaussian binary quadratic forms, where triples are acted on by the extended modular group. Another is an application of Eisenstein series for an associated Fuchsian group.