

Speaker: Benjamin Howard

Title: Arithmetic volumes of unitary Shimura varieties

Abstract: The integral model of a $\mathrm{GU}(n-1,1)$ Shimura variety carries a natural metrized line bundle of modular forms. Viewing this metrized line bundle as a class in the codimension one arithmetic Chow group, one can define its arithmetic volume as an iterated self-intersection. We show that this volume can be expressed in terms of logarithmic derivatives of L-functions at integer points. This is joint work with Jan Bruinier.