

Speaker: Jan Vonk

Title: p -adic families of modular forms and singular moduli for real quadratic fields

Abstract: In this talk we will propose an analogue of certain results in CM theory on singular moduli, in the setting of real quadratic fields. After a short recap of CM theory and the work of Gross-Zagier, we will discuss a recent approach towards RM theory via rigid meromorphic cocycles. We discuss the parallels with the analytic arguments of Gross-Zagier, where certain smooth families of Hilbert Eisenstein series are replaced by their p -adic counterparts, and Gross-Stark units are obtained from their diagonal restrictions.