

**Speaker:** Ben Howard

**Title:** The supersingular locus of the  $GU(2,2)$  Shimura variety

**Abstract:** Shimura varieties associated to unitary groups are moduli space of abelian varieties, and so it makes sense to ask for a description of the supersingular locus in the reduction at a fixed prime  $p$ . For unitary groups of signature  $(n,1)$ , the structure of the supersingular locus was completely determined by Vollaard and Wedhorn. I'll describe joint work with G. Pappas which completely determines the supersingular locus in the case of signature  $(2,2)$ .