**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 Vollaard and Wedhorn. I’ll describe joint work with G. Pappas which completely determines the supersingular locus in the case of signature $(2,2)$. 