On K3 Surfaces with Lattice Polarization

Adrian CLINGHER[1]

[1] University of Missouri St. Louis, USA

The talk will review the basic theory of lattice polarized K3 surfaces and then it will focus on several hierarchical high Picard rank families. We shall discuss specific geometric features, period moduli spaces, as well as explicit classifications in terms of modular forms of appropriate type. This is joint work with A. Malmendier.