Andrew Zimmerman* (aazimmer@uchicago.edu). Rigidity of divisible domains in flag manifolds.

Many symmetric spaces of non-compact type can be embedded as a domain in some compact homogeneous space. For instance, real hyperbolic space embeds as a domain in real projective space and the projective automorphisms of the domain coincide with the isometry group (this is the Klein model). This embedding is quite flexible in that there exists perturbations which are non-symmetric but still have large projective automorphism group (for instance co-compact).

Perhaps more surprisingly, in real projective space there also exist non-symmetric domains whose projective automorphism group is discrete, co-compact, and not quasi-isometric to any symmetric space. In this talk I will discuss some recent rigidity results for domains in other compact homogeneous spaces (complex/quaternionic projective space and certain Grassmannians). Some of this is joint work with Wouter van Limbeek. (Received September 17, 2016)