A new theta correspondence

Abstract:

The classical theta correspondence establishes a relationship between automorphic representations on special orthogonal groups and automorphic representations on symplectic groups or their double covers. This correspondence is achieved by using as integral kernel a theta series that is constructed from the Weil representation. In this talk I will briefly survey earlier work on (local and global, classical and other) theta correspondences and then present an extension of the classical theta correspondence to higher degree metaplectic covers. The key issue here is that for higher degree covers there is no analogue of the Weil representation (or even a minimal representation), so additional ingredients are needed. Joint work with David Ginzburg.