October 21, 2015: Salah Mehdi (University of Metz)), "Representation-theoretic embeddings of differential operators."

Let G/H be a pseudo-Riemannian symmetric space and L a closed subgroup of G acting transitively on G/H. There is an embedding of the algebra $D(G/H)$ of G-invariant differential operators on G/H into the algebra $D(L/L\cap H)$ of L-invariant differential operators on $L/L \cap H$. We will describe some explicit connections between G-representations and L-representations, analogous to branching rules. We will extend the above embedding to sections of bundles, and, in particular, we compute the image of cubic and non-cubic Dirac operators. The hope, still unachieved, is to derive finer information on representations.