May 5: D. Vogan, "Generic unitary representations of classical groups over local fields (after Lapid, Muić, and Tadić)."

A "generic" representation is one that is as large as possible in some appropriate sense. In the case of a reductive group G over a local field F, this means that the representation space looks approximately like a space of (complex-valued continuous) functions on an r-dimensional projective variety over F, where r is the number of positive roots for G. Such representations can exist only if G is quasisplit, and in that case they have a reasonably simple description (conjectured by Casselman, and proved by Kostant in the archimedean case and by Muić in the p-adic case).

Generic representations have a special role in automorphic representation theory, in part because any automorphic L-function is (more or less) equal to the L-function of a generic representation. Knowledge about generic unitary representations can sometimes be translated into knowledge about automorphic L-functions. What Lapid, Muić, and Tadić achieve is a complete description of the generic unitary representations of classical groups. In a sense the hardest case (that of generic spherical representations) was done by Barbasch and Moy; but there is no reduction to that case available in general.