December 10: Dmitry Gourevitch (Tel Aviv University), "Multiplicity one theorems: a uniform proof." FOLLOWED BY DINNER.

Let F be a local field of characteristic 0. We consider distributions on $GL(n+1,F)$ which are invariant under the adjoint action of $GL(n,F)$. We prove that such distributions are invariant under transposition. This implies that an irreducible representation of $GL(n+1,F)$, when restricted to $GL(n,F)$ "decomposes" with multiplicity one.
Such property of a group and a subgroup is called strong Gelfand property. It is used in representation theory and automorphic forms. This property was introduced by Gelfand in the 50s for compact groups. However, for non-compact groups it is much more difficult to establish.
For our pair $(GL(n+1,F),GL(n,F))$ it was proven in 2007 in [AGRS] for non-Archimedean F, and in 2008 in [AG] and [SZ] for Archimedean F. In this lecture we will present a new proof which is uniform for both cases. This proof is based on the above papers and an additional new tool. If time permits we will discuss similar theorems that hold for orthogonal and unitary groups.
[AG] A. Aizenbud, D. Gourevitch: "Multiplicity one theorem for (GL(n+1,R),GL(n,R))", `arXiv:0808.2729v1 [math.RT]`
[AGRS] A. Aizenbud, D. Gourevitch, S. Rallis, G. Schiffmann: "Multiplicity One Theorems", `arXiv:0709.4215v1 [math.RT]`, to appear in the *Annals of Mathematics*.
[SZ] B. Sun and C.-B. Zhu" "Multiplicity one theorems: the archimedean case", preprint available at `http://www.math.nus.edu.sg/~matzhucb/Multiplicity_One.pdf`