1154-20-1571   **David Vogan***, Room 2-355, MIT, 77 Massachusetts Avenue, Cambridge, MA 02139. *Local Langlands conjecture for finite groups of Lie type.* Preliminary report.

In the late 1960s, Langlands' study of automorphic forms led him to a remarkable conjecture about the representation theory of reductive groups over local fields. The simplest and most fundamental case of this conjecture says that if F is any local field, then the (infinite-dimensional) irreducible representations of $GL(n, F)$ are indexed (approximately) by the n-dimensional representations of the Galois group of F.

In the 1970s, Macdonald formulated and proved an analogue of Langlands' conjecture for the finite group $GL(n, \mathbb{F}_q)$. I will explain how one can extend Macdonald's formulation to any finite group of Lie type; what results of Lusztig and Shoji offer toward proof of this extension; and how these questions are related to Langlands' (still unproven!) conjecture about local fields. (Received September 16, 2019)