October 15: George Lusztig (MIT), On the character of certain modular irreducible representations.

Let G be an almost simple, simply connected algebraic group over an algebraically closed field of characteristic p > 1. The irreducible rational representations of G are indexed by dominant weights (Chevalley). In 1979 I stated a conjectural formula (now a theorem) for the character of these representations (for large enough p) assuming that the corresponding dominant weight is not too large; for the remaining dominant weights one had to use the Steinberg tensor product theorem. In the talk I will present a formula which applies directly to any dominant weight.