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Krzysztof Klosin* (klosin@math.utah.edu), 155 South 1400 East, Room 233, Salt Lake City, UT 84112-0090. *Congruences among automorphic forms on unitary groups and the Bloch-Kato conjecture.*

The Bloch-Kato conjecture predicts a precise relationship between an L-value attached to a motif and the order of its Selmer group. The aim of this talk is to prove statements towards this conjecture for adjoint motives of modular forms. More precisely, for a prime p , we relate the p -adic valuation of $L^{alg}(Sym^2 f, k)$ to the p -adic valuation of $\#Sel(ad^0 \rho_f(-1))^\vee$, where f is a modular form of weight $k - 1$, and ρ_f is the p -adic Galois representation attached to f . Our approach is a variation of a method first used by Ribet (1976) and later developed by Wiles (1990) and Skinner and Urban (2002) in the sense that to achieve our goal we introduce an intermediate step and construct congruences between two different kinds (CAP and non-CAP) of automorphic forms on a certain unitary group. (Received September 01, 2007)