1037-16-99   **Yorck Sommerhäuser*** (`sommerh@jaguar1.usouthal.edu`), University of South Alabama, Department of Mathematics and Statistics, ILB 325, Mobile, AL 36688. *The congruence subgroup property for factorizable Hopf algebras.*

Consider a factorizable semisimple Hopf algebra over an algebraically closed field of characteristic zero. If the Drinfel'd element and its inverse have the same trace in the regular representation, then the action of the modular group on the center of the Hopf algebra yields not only a projective, but rather an ordinary linear representation. We prove that in this case the kernel of this linear representation is a congruence subgroup of level N, where N is the exponent of the Hopf algebra. To do this, we introduce a generalization of the Jacobi symbol that relates the action of the Galois group to the action of the diagonal matrices in the quotient of the modular group. The talk is based on joint work with Yongchang Zhu. (Received January 25, 2008)