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Cornelius Pillen* (pillen@jaguar1.usouthal.edu), Department of Mathematics and Statistics, University of South Alabama, Mobile, AL 36688. *Self-extensions for finite symplectic groups via algebraic groups.*

The topic of this talk are self-extensions for finite groups of Lie type in the defining characteristic. A self-extension is a non-trivial extension of a simple module by itself. Chris Bendel, Dan Nakano and the presenter have shown that Lie groups defined over fields whose order is either a large prime or a large prime power do not admit self-extensions, unless the group is one of the symplectic groups $Sp_{2n}(\mathbb{F}_p)$, with $n \geq 1$ and p a prime.

Here it is shown that self-extensions indeed exist for finite symplectic groups in all ranks and for odd primes. The methods of proof are based on ideas due to James Humphreys and Henning Andersen. (Received January 09, 2007)