Wayne State University  
Mathematics Department  
Topology Seminar  

Motivic Adams spectral sequence over finite fields  

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either 2:00 or 3:00 PM  
Nelson Room  

Abstract  

To any field $k$, we consider the motivic stable homotopy category over $k$ constructed by Morel and Voevodsky. In this setting, one can construct a motivic Adams spectral sequence (MASS) which converges to the 2-complete stable homotopy groups of the motivic sphere spectrum. By using computer calculations of the $E_2$ page of the MASS, we are able to compute the 2-complete stable homotopy groups of the motivic sphere spectrum $\pi_{n,m}$ for $n \leq 12$ over finite fields of odd characteristic. In this talk, I will describe how we carried out the computations, and the results. This work is joint with Paul Ostvaer and Knight Fu.