

Paul Goerss (Northwestern University)

„Dualizing modules in stable homotopy theory.“

Abstract:

Let G be a very nice p -adic analytic group; I have in mind examples such as $GL_n(\mathbb{Z}_p)$ or the Morava stabilizer group. The category of continuous G -modules has a very elegant theory of duality reflecting Poincaré duality for G . We would very much like to extend this to stable homotopy theory where, in various contexts, it would help explain some deep structure we have seen so far only through computations. It is easy enough to define the dualizing objects, but then we are left with understanding them. It turns out that if we are only interested in finite subgroups of G (which would be a serious start) we can get away with classical computations with characteristic classes. This is an on-going project with Agnès Beaudry, Mike Hopkins, and Vesna Stojanoska.