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„Symplectic groups and Poincar\'e categories "

Abstract:
The goal of the talk will be to explain joint work M.Land and T.Nikolaus, in which we compute the so-called stable part of the cohomology of symplectic and orthogonal groups over the integers at regular primes, in particular at the previously mysterious prime 2. Our approach is via the group completion theorem, which relates the stable cohomology of these arithmetic groups over general rings to that of certain Grothendieck-Witt spaces. Recent work with W.Steimle identifies these in terms of Poincar\'e categories, whence they can be analysed using the tools set-up in our previous joint work with B.Calm\'es, E.Dotto, Y.Harpaz, K.Moi and D.Nardin.