

1052-55-115

Anna Marie Bohmann* (bohmann@math.uchicago.edu), Department of Mathematics, 5734 S. University Ave, Chicago, IL 60637. *The S^1 Equivariant Generating Hypothesis.*

The Freyd generating hypothesis is a long-standing conjecture in stable homotopy theory. An analogous conjecture can be formulated in any triangulated category with a set of compact generators. Recently, Hovey, Lockridge, and Puninski characterized the rings in whose derived categories this conjecture holds. They showed in particular that the generating hypothesis holds in the derived category of a von Neumann regular ring. The rational Burnside ring of a compact Lie group is an example of such a ring. This might lead one to suspect that the generating hypothesis holds in the rational equivariant stable homotopy category of a compact Lie group. Starting from Greenlees's algebraic description of this category for the circle group, we show that this is not the case by exhibiting an explicit counterexample. (Received August 24, 2009)