
PO HU, Wayne State University

Derived Representation Theory

I will talk about the construction of a theory of Lie algebras and their representations, making use of M. Ching's Lie operad and Elmendorf-Mandell's infinite loop space machinery. In particular, I will discuss the construction of spectra version of concepts from representation theory, such as Verma modules and Harish-Chandra pairs, as well as the application of categorifying sl_k link invariants in the category of spectra. (joint work with I. Kriz and P. Somberg)