
ZSUZSANNA DANCZO, Fields Institute

Odd Khovanov homology via hyperplane arrangements

We construct cohomology groups associated to arrangements of hyperplanes which are invariant under Gale duality. Hyperplane arrangements can be thought of as generalisations of various interesting mathematical objects, such as graphs and links. When specialised to planar graphs, Gale duality is planar graph duality. When restricted to links, we obtain an odd categorification of the Jones polynomial similar to the odd Khovanov homology of Ozsvath, Rasmussen and Szabo.

Joint work with Anthony Licata.