

Topology Seminar

Piotr Pstrągowski

of Kyoto University will be speaking on

The monochromatic Hahn-Wilson conjecture

on January 17 at 4:30 in
MIT Room 2-449

In 1999, Mark Mahowald and Charles Rezk introduced a class of spectra which are particularly amenable to understanding using the classical Adams spectral sequence, called fp -spectra. As first described by Rognes, these play a pivotal role in generalizing Quillen-Lichtenbaum conjectures to the setting of ring spectra.

The Quillen-Lichtenbaum conjectures were proven for truncated Brown-Peterson spectra by Dylan Wilson and Jeremy Hahn in 2021, who in this way discovered the first highly non-obvious example of an fp -spectrum in the form of algebraic K -theory. This led them to ask about a general structure result for fp -spectra, and to conjecture that they can all be built out of particularly simple ones.

I will talk about recent joint work with David Lee where we prove a monochromatic analogue of the Hahn-Wilson conjecture, and deduce the original conjecture at height one.

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