

STRATIFICATION IN TENSOR TRIANGULAR GEOMETRY WITH APPLICATIONS TO SPECTRAL MACKEY FUNCTORS

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In a recent paper, joint with Tobias Barthel and Drew Heard, we develop a theory of stratification in the context of tensor triangular geometry and apply it to classify the localizing tensor-ideals of certain categories of spectral G -Mackey functors for all finite groups G . In this talk, I will provide an introduction to the problem of classifying thick and localizing tensor-ideals via theories of support, describe in broad strokes some of the highlights of our theory (which builds on the work of Balmer-Favi, Stevenson, and Benson-Iyengar-Krause) and, time-permitting, discuss our applications in equivariant homotopy theory. The starting point for these equivariant applications is a recent computation (joint with Irakli Patchkoria and Christian Wimmer) of the Balmer spectrum of the category of derived Mackey functors. We similarly study the Balmer spectrum of the category of $E(n)$ -local spectral Mackey functors, and harness our geometric theory of stratification to classify the localizing tensor-ideals of both categories.

This is joint work with Tobias Barthel (Max Planck Institute for Mathematics) and Drew Heard (Norwegian University of Science and Technology)

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