

# Algebra/Topology Seminar

ISHAN LEVY  
MIT

## WHAT WE KNOW ABOUT STABLE SUBCATEGORIES OF THE STABLE HOMOTOPY CATEGORY

Thursday, November 3, 2022  
3:00 p.m. in ES-143

**ABSTRACT.** A fundamental result in stable homotopy theory is a theorem of Hopkins–Smith which classifies thick subcategories of the stable homotopy category in terms of an infinite family of periodicities generalizing Bott periodicity. Until recently, almost nothing was known about the classification of the stable subcategories of the stable homotopy category, which would refine the classification of thick subcategories. After going over the requisite background, I will describe results giving the current state of our knowledge on this refinement. This is partially joint with Robert Burklund.