

# Topology Seminar

## Toni Annala

of Institute for Advanced Study will be speaking on

## Atiyah duality and applications

on April 29 at 4:30 in  
MIT Room 2-131

In topology, Atiyah duality provides a geometric model for the dual of the suspension spectrum of a smooth manifold. In this talk, we export this into algebraic geometry by proving an analogous claim in the non- $A^1$ -invariant stable motivic homotopy theory of Annala-Hoyois-Iwasa. Besides recovering many Poincare duality type results, it has other surprising consequences. I will explain how to use the so-called  $A^1$ -colocalization functor to prove the independence of logarithmic cohomology theories from the choice of good compactification (without assuming resolution of singularities).

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