

TOPOLOGY SEMINAR

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Loop Spaces, Character Theory,  
and  $p$ -Divisible Groups

Tuesday, January 22nd, 4:00pm, in 383-N

*Abstract:* Let  $G$  be a finite group. A foundational theory of representation theory asserts that the construction which assigns to each representation of  $G$  its character induces an isomorphism between the representation ring of  $G$  and the ring of conjugation-invariant complex-valued functions on  $G$ . This isomorphism can be interpreted as giving a concrete description of the  $G$ -equivariant  $K$ -theory of a point “with complex coefficients”. Hopkins, Kuhn, and Ravenel developed an analogous “character theory” for a large class of cohomology theories, known as Morava  $E$ -theories. In this talk, I’ll review the work of Hopkins–Kuhn–Ravenel and discuss a generalization to the case of “local coefficients”.