

CHROMATIC HOMOTOPY, K -THEORY AND FUNCTORS

CIRM, LUMINY, 23-27.01.2023

THURSDAY 10:10 – 11:10, **Angélica Osorno** (Reed College):

(2)-categorical constructions and the multiplicative equivariant Barratt-Quillen-Priddy theorem.

The classical Barratt-Priddy-Quillen theorem states that the K -theory spectrum of the category of finite sets and isomorphisms is equivalent to the sphere spectrum. A more general statement is that for an unbased space X , the suspension spectrum $\Sigma_+^\infty X$ is equivalent to the spectrum associated to the free E_∞ space on X . In this talk we will present a categorical construction of the latter that is lax monoidal. This compatibility with multiplicative structures is necessary when using this functor to change enrichments, as in the work of Guillou-May.

This is joint work with Bert Guillou, Peter May and Mona Merling.