

TOPOLOGY SEMINAR

Craig Westerland (Melbourne / Minnesota)

An analogue of K -theory for
higher chromatic homotopy theory

Tuesday, May 7th, 4:00pm, in 383-N

Abstract: We introduce a new cohomology theory constructed using homotopy theoretic methods that bears some formal resemblance to K -theory—it is equipped with Adams operations, a form of periodicity, and an analogue of the J -homomorphism. However, the information that it encodes is of a higher “chromatic level” than K -theory, and so may be suitable for studying higher chromatic phenomena in stable homotopy theory. Unfortunately, its geometric meaning is far from apparent, although there are some hints of a relationship with n -gerbes.