Algebra/Topology Seminar

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Even Spaces and Snaith Constructions

Thursday, February 28, 2019
1:15 p.m. in ES-143

Abstract. Call a CW-complex even if it has only even-dimensional cells and even-dimensional homotopy groups. An example is the infinite complex projective space $\mathbb{C}P^\infty$, which has only a single non-zero homotopy group in dimension 2. I will survey work of Wilson that classifies all even spaces, as well as work of Hill and Hopkins that classifies certain group actions on even spaces. I will then explain work of myself and Allen Yuan that extracts cohomology theories out of even spaces, the prototype of which is Snaith's construction of complex K-theory from $\mathbb{C}P^\infty$.