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Abstracts of Short Communications and Posters

Section:

6. Topology

1991 MS Classification: 55P42
Kriz, Igor, University of Michigan, U. S. A.
Real-oriented homotopy theory
M. F. Atiyah defined a Real bundle as a complex bundle on a $\mathbb{Z}/2$-space with anti-linear conjugation. P. S. Landweber and S. Araki used this idea to define Real cobordism and Real-oriented spectra. I will present a new Adams-type spectral sequence converging to stable homotopy groups of spheres based on Real cobordism. Connections with a $\mathbb{Z}/2$-equivariant Adams spectral sequence based on the Eilenberg-MacLane spectrum of the constant Mackey functor $\mathbb{Z}/2$ (extending work of J. P. C. Greenlees) will also be presented. Much of this is joint work with Po Hu.
Reference: P. Hu and I. Kriz: A Real-oriented analogue of the Adams-Novikov spectral sequence, to appear