



EXTENSIVE COMPUTATIONS OF THE ADAMS SPECTRAL SEQUENCE E_2 -PAGES AT ODD PRIMES

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Time: Fri, May. 9, 16: 00-17: 00

Venue: Room 102, SCMS

Tencent Meeting ID: 750 719 705 Password: 257285

Abstract:

In this talk, I will present joint work with Weinan Lin that overcomes fundamental computational limitations in computing the E_2 -page of the Adams spectral sequence at odd primes.

Leveraging a novel generalization of Gröbner basis theory, we develop an efficient framework that allows us to determine complete additive and multiplicative structures in significantly larger degree ranges than previously possible. Notably, our method achieves these results in practical timeframes, circumventing the rapid growth inherent in earlier techniques. These advances not only advance the algorithmic toolkit for spectral sequences but also lay the groundwork for targeted investigations into stable homotopy groups of spheres and related spectra.