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Aravind Asok* (asok@usc.edu), 3620 S Vermont Ave KAP 104, Los Angeles, CA 90089.

Unstable rational motivic splittings of algebraic groups and applications.

I will discuss joint work with Mike Hopkins and Jean Fasel regarding analogs of unstable rational splittings of classical groups in the context of motivic homotopy theory. In particular, we show that working over a field that is not formally real, (split) special linear and symplectic groups are products of “odd-dimensional motivic spheres” after inverting sufficiently many primes. As a consequence of these kinds of results, I will show that $\mathbb{A}^n \setminus 0$ is rationally a motivic Eilenberg–Mac Lane space in the sense of Voevodsky. (Received August 02, 2018)