ID de Contribution: **8**   Type: **Non spécifié**

Motivic stable cohomotopy and unimodular rows

mercredi 23 octobre 2024 14:30 (55 minutes)

Unimodular rows are fundamental objects in algebraic K-theory as they classify stably free projective modules. Geometrically, they correspond to morphisms to punctured affine space and may thus be thought of as an algebro-geometric analogue of maps to spheres in topology. The latter give rise to Borsuk's cohomotopy groups, a counterpart to which was constructed purely algebraically by van der Kallen in the 1980s using certain orbit sets of unimodular rows. Nowadays, using the homotopy theory of schemes, Borsuk's construction may be followed more directly to produce the motivic cohomotopy groups of Asok and Fasel. We prove that these two approaches of "algebraic"cohomotopy, namely van der Kallen's and Asok–Fasel's, coincide in that there is a natural map from orbit sets of unimodular rows to motivic cohomotopy groups which is a group isomorphism in the dimension range where both structures exist.

Orateur: LERBET, Samuel (Institut Fourier, Université Grenoble Alpes)