ID de Contribution: **28** Type: **Non spécifié**

Motivic Stable Homotopy Theory (1/3)

mardi 18 juillet 2023 11:15 (1h 15m)

In joint work with Toni Annala and Marc Hoyois, we have developed motivic stable homotopy in broader generality than the theory initiated by Voevodsky, so that non-A^1-invariant theories can also be captured. I'll describe this, bearing in mind its connection to algebraic K-theory and p-adic cohomology such as syntomic cohomology. The course is divided roughly into three parts.
Foundations: The goal of this part is to grasp the notion of P^1-spectrum, which forms the basic framework of motivic stable homotopy theory.
Techniques: The goal of this part is to understand our main technique, P-homotopy invariance, which allows us to do a homotopy theory in algebraic geometry while keeping the affine line A^1 non-contractible.
Applications: In this part, we apply our motivic homotopy theory to algebraic K-theory of arbitrary qcqs schemes, and prove an algebraic analogue of Snaith theorem, which says that K-theory is obtained from the Picard stack by inverting the Bott element.

Orateur: Prof. IWASA, Ryomei (Université Paris-Saclay)