Résumés du séminaire commun Dijon-Freiburg-Strasbourg

9h30 Christine Huyghe (Strasbourg)

Localization of locally analytic admissible p-adic representation

Summary : (joint work with D. Patel, T. Schmidt, M. Strauch). Let G be a reductive group, Lie(G) its Lie algebra; X the flag variety of G.

In the complex case, Beilinson-Bernstein and Brylinski-Kashiwara proved in the 80's that there is an equivalence of categories between the central representations of Lie(G) and the D-modules over the flag variety X. In this talk I will explain a p-adic analogous of this theorem. In this case G is a split reductive group, and representations we are considering are the central locally analytic representations of the Qp-points of the group G.

On the geometric side I will explain how to contruct differential operators over the rigid flag variety of the group G.

11h Frédéric Déglise (Dijon)

p-adic Hodge theory in motivic homotopy

I will present a work in collaboration with Wiesia Niziol which aims to incorporate p-adic Hodge theory into the framework of modules over ring spectra, in the sense of Morel-Voevodsky's motivic homotopy theory. Our main result is the identification of "modules over syntomic cohomology" as a full subcategory of the derived category of potentially semi-stable representations, making use of ideas of Beilinson and Drew. I will then present an ongoing project to extend Fontaine semi-stable comparison to a suitable notion of syntomic modules. The later should be compared to Saito mixed Hodge modules, and our objective is to get some kind of p-adic Riemann-Hilbert correspondence.

14h30 Wolfgang Soergel (Freiburg)

Title: Tate Motives in Representation Theory

Abstract: A variant of the formalism of
motivic sheaves, where the Tate objects
do not extend among one another, can explain
the phenomenon of graded versions of categories
of representations underlying the character
formulas of Kazhdan-Lusztig. This is joint work
with Matthias Wendt.