Programme du 50^{e}
Semaine thématique sur les variétés des carquois
19 au 23 août

50th anniversary program
Focus week on quiver varieties
August 19-23, 2019

Cluster theory of the coherent Satake category and beyond

Sabin Cautis *

cautis@math.ubc.ca

Historically one studies the category of constructible perverse sheaves on the affine Grassmannian. This leads to the *constructible* Satake category and the well known (geometric) Satake equivalence. However, one can also study the category of perverse *coherent* sheaves (the coherent Satake category). Motivated by certain ideas in mathematical physics this category is conjecturally governed by a cluster algebra structure.

We will describe a solution to this conjecture in the case of general linear groups and discuss extensions of this result to more general Coulomb branches of 4D $N = 2$ gauge theories.

This is joint work with Harold Williams.

*Department of Mathematics, The University of British Columbia, 1984 Mathematics Rd., Vancouver, BC V6T 1Z2, CANADA