

Independence for exchange graphs and cluster complexes

Pierre-Guy Plamondon

Université Paris-Sud

Among the objects associated with any cluster algebra are the exchange graph and the cluster complex, which describe the combinatorics of mutation. Fomin and Zelevinsky have conjectured that these two objects depend only on the defining matrix of the cluster algebra, and not on the choice of coefficients. In this talk, we will see how one can use cluster categories to prove this statement for skew-symmetric cluster algebras. (This is joint work with Giovanni Cerulli Irelli, Bernhard Keller and Daniel Labardini-Fragoso).