Title: Noncommutative Cluster Integrable Systems

Abstract:

Dimer Integrable Systems introduced by A. Goncharov and R. Kenyon appear as a family of commuting Hamilton flows on the moduli space of connections on a line bundle over the bipartite ribbon graph. These Hamilton flows are invariant w.r.t. certain transformations of the underlying graph known as mutations. In my talk I will show how to extend some of the results by A. Goncharov and R. Kenyon for the case of vector bundles of general rank using the theory of Double Poisson Brackets.