CLUSTER ALGEBRAS SEMINAR

Speaker: Idan Eisner
Technion

Date: Monday, December 5, 2016
Time: 4:00 PM
Location: 258 Hurley Hall

Lecture Title:
Exotic cluster algebras

Abstract
Using the notion of compatibility between Poisson brackets and cluster algebras in the coordinate rings of simple complex Lie groups, Gekhtman Shapiro and Vainshtein conjectured a correspondence between the two. Poisson Lie groups are classified by the Belavin-Drinfeld classification of solutions to the classical Yang Baxter equation. For a simple complex Lie group G and a Belavin-Drinfeld class, one can define a corresponding Poisson bracket on the ring of regular functions on G. For some of these classes a compatible cluster structure can be constructed. We will describe some of these for $G=SLn$. In some cases, the compatible structure is a generalized cluster algebra, where the exchange relations are polynomial rather than binomial. We will show this for $G=SP6$.