

Belavin-Drinfeld classification and cluster structures on simple Lie groups

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We study natural cluster structures in the rings of regular functions on simple complex Lie groups, and Poisson-Lie structures compatible with these cluster structures. According to our main conjecture, each class in the Belavin-Drinfeld classification of Poisson-Lie structures on G corresponds to a cluster structure in $O(G)$. I will explain how different parts of the conjecture are related to each other and present a supporting evidence that includes $SL(n)$, n