1016-17-203 **Rinat Kedem*** (rinat@uiuc.edu). *Fusion products and the Kirillov Reshetikhin conjecture.*

The Feigin-Loktev conjecture for fusion products is about the dimension of a graded tensor product of finite dimensional g-modules. The Kirillov-Reshetikhin conjecture is a formula for the dimension of the tensor product of Yangian modules, which is a proof of the completeness problem for the Bethe ansatz for the generalized Heisenberg model. I will prove both of these conjectures for arbitrary simple Lie algebras by giving a fermionic formula for both. (Received February 13, 2006)