Nov. 17  **Xin Guo**, UC Berkeley

*Algebraic methods for modeling default dependence*

The past/current financial crisis highlights the major issue of correlated default. In this talk we will first give an overview of standard approaches in modeling correlated default. We will then present a graphic model for default dependence. We will show how this model is connected to well-known results in algebraic statistics and discuss the computational complexity of this type of models. Based on joint work with O. I. Filiz, J. Morton and B. Sturmfels.