Algebra and Number Theory Seminar
Seminar

Minimal Free Resolutions of the toppling ideal of a graph and its initial ideal

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Abstract: We describe minimal free resolutions of a lattice ideal associated with a graph and its initial ideal. These ideals are closely related to chip firing games and the Riemann-Roch theorem on graphs. Our motivations are twofold: describing information related to the Riemann-Roch theorem in terms of Betti numbers of the lattice ideal and the problem of explicit description of minimal free resolutions. This talk is based on joint work with Frank-Olaf Schreyer and John Wilmes. Analogous results were simultaneously and independently obtained by Fatemeh Mohammadi and Farbod Shokrieh.

Wednesday, November 7, 2012, 4:00 pm
Mathematics and Science Center: W306

Mathematics and Computer Science
Emory University