

Math Department Colloquium

February 18, 2008

Speaker: Calin Chindris

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Title: Littlewood-Richardson coefficients and Quivers

Abstract: Okounkov conjectured that the Littlewood-Richardson (“LR”) coefficients are log-concave as a function of their highest weights. This conjecture, if true, would immediately imply a series of other important conjectures such as the saturation conjecture for LR coefficients, a conjecture of Fulton on LR coefficients, and Okounkov’s log-concavity conjecture for skew-Schur functions. Although these last three conjectures have been proved, Derksen, Weyman and the speaker disproved Okounkov’s log-concavity conjecture for LR coefficients. I will explain the proof we found by viewing the LR coefficients as dimensions of weight spaces of semi-invariants for quivers.