



Special Joint Math/CS Colloquium  
Department of Mathematics and  
Department of Computer Science  
San José State University



**K. Subramani**  
West Virginia Univ.

*A new mathematical programming paradigm*

MAY 8, 2013, MH320

**Abstract:** In this talk, I will introduce the topic of Quantified Linear Programming. Quantified Linear Programs (QLPs) generalize Linear Programs in the logical sense. In a QLP, a variable can be either existentially quantified or universally quantified. On account of the alternations of quantifiers, the problem of deciding whether a QLP is feasible is non-trivial. Indeed, I strongly suspect that it is PSPACE-hard, although a formal proof has proven elusive. QLPs are very expressive and can model problems in a number of domains including, but not limited to, real-time scheduling and program verification.

*Background:* Familiarity with proofs (e.g., Math 108).

**About the speaker:** K. Subramani received a Ph.D. in Computer Science from the University of Maryland in 2000. He has since been a faculty member in the Lane Department of Computer Science and Electrical Engineering at West Virginia University. His research interests include combinatorial optimization and automated reasoning.

SNACKS IN MH331B AT 2:30 PM  
TALK STARTS AT 3 PM

For more information, see our full schedule at:

<http://www.math.sjsu.edu/~hsu/colloq/>