Three Short Proofs related to Independence Number and Lovasz' theta

Craig Larson, Virginia Commonwealth University, Richmond, VA – 23284

Abstract

In this talk I will introduce Lovasz' theta function, and present Lovasz' own proof of his seminal independence number bound. I will talk about Alpha-Theta (or AT) graphs, the graphs where the independence number equals Lovasz' theta, a very rich class indeed. And I will present two short new proofs that 2 interesting classes of graphs are AT. This is joint work with Hudson Lafayette and Robert Jacobs.