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**Josh Hiller\*** (johiller@adelphi.edu). *Modeling market based deforestation prevention policy: the effect of fluctuating commodity prices and industrial agriculture.*

Over the past several decades, market based deforestation-prevention policies have been lauded as a "free-market" approach to deforestation prevention in some of the most endangered ecosystems of the world. Many Markov models have been proposed to capture different aspects of the decision making process. However, most of these models have assumed that agricultural utility remains constant throughout time. In some cases this may be appropriate. Recently though, evidence has been presented suggesting that deforestation in some ecosystems is primarily driven by fluctuations in commodity prices and the presence of modern agricultural technologies. In this talk we will discuss a simple Markov model which tries to capture the effect of commodity fluctuations and industrial agriculture on the effectiveness of market based deforestation prevention policies. If time permits, we will also touch on issues of spatial-temporal adverse selection (Received September 21, 2017)