1083-35-32 **Yongli Song** (05143@tongji.edu.cn), Department of Mathematics, Tongji University, Shanghai, 200092, Peoples Rep of China, and **Xingfu Zou*** (xzou@uwo.ca), Department of Applied Mathematics, University of Western Ontario, London, Ontario N6A 5B7, Canada. *Hopf bifurcation and Turing bifurcation in a ratio dependent predator-prey model with spatial diffusion and temporal delay.*

In this talk, I will present some results on a ratio dependent predator-prey model with spatial diffusion and temporal delay. By analysing the stability of a positive constant steady state, we found that both Hopf bifurcation and Turing bifurcation are possible within certain ranges of model parameters, with the latter leading to formation of spatial patterns. (Received July 26, 2012)