1098-60-21 **Triet Pham*** (triet.pham@rutgers.edu). *Non-Markovian zero-sum stochastic differential games and path dependent Bellman-Isaacs equations.*

The connection between a partial differential equation and its stochastic representation has always been an important topic in mathematical finance. For example, the connection between Backward Stochastic Differential Equations and semi-linear PDEs is classical, which opens the door for many applications, including numerical solutions via Monte Carlo methods. More recently, the notion of Second-order Backward Stochastic Differential equations (2BSDEs), proposed by Soner, Touzi and Zhang (2011) has received considerable attention by giving the stochastic representation for the HJB equation. In an attempt to generalize the notion of 2BSDEs to derive the stochastic representation for the Bellman-Isaacs equations, we study the problem of non-Markovian zero-sum stochastic differential games. Our contributions here is to show the existence of the game value in the control versus control setting (in contrast to the strategy versus control setting, which is popular in the literature), via the notion of viscosity solutions to path-dependent Bellman-Isaac equations. We will also mention the remaining difficulties that still need to be overcome to develop a theory of generalized 2BSDEs. This is joint work with Jianfeng Zhang. (Received November 11, 2013)