

February 19th, 2016
KAP 414
2:00 P.M. – 3:00 P.M.

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**“Comparison Result for Viscosity Solutions to the
Fully Nonlinear Path-Dependent PDE’s”**

Abstract: Motivated by non-Markovian stochastic control problem, we work on the recently introduced notion of viscosity solutions to path-dependent PDE’s. This time, we prove a comparison result for viscosity solutions of (possibly degenerate) fully nonlinear parabolic path-dependent PDEs. Our argument follows the regularization method as introduced by Jensen, Lions & Souganidis in the corresponding finite-dimensional PDE setting. The present argument significantly simplifies the comparison proof in the work by Ekren, Touzi & Zhang, but requires an L_p -type continuity (with respect to the path) for the viscosity semi-solutions and for the nonlinearity defining the equation.