MING MEI, Champlain College St-Lambert
Sharper traveling waves for degenerate Burgers equations with time-delay

In this talk, I will present some recent results of study on Burgers equations with time-delay and degeneracy of viscosity. The modelling equations arise from the nonlocal reaction-diffusion equations for population dynamics. When the Rankine-Hugoniot condition and the Lax's entropy condition hold, the dynamical equation possesses some sharper traveling waves, the so-called sharper viscous shock waves. The degeneracy of viscosity causes the traveling waves to be sharper, and the large time-delay makes the traveling waves to be oscillatory.