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30332, *Bellman Equations for Optimal Control of Stochastic Navier-Stokes Equations*

We will discuss results on Hamilton-Jacobi-Bellman equations associated with the stochastic optimal control of viscous hydrodynamics. These are infinite dimensional, second-order equations that involve unbounded nonlinear operators and they may be very degenerate. We will present a viscosity solution approach to such equations that guarantees existence and uniqueness of generalized solutions.