1163-60-436 **Xiangchan Zhu***, Chinese Academy of science, Beijing, Peoples Rep of China. *Singular HJB Equations with Applications to KPZ on the real line.*

This talk is devoted to studying the Hamilton-Jacobi-Bellman equations with distribution-valued coefficients, which is not well-de ned in the classical sense and shall be understood by using paracontrolled distribution method introduced in [GIP15]. By a new characterization of weighted Holder space and Zvonkin's transformation we prove some new a priori estimates, and therefore, establish the global well-posedness for singular HJB equations. As an application, the global well-posedness for KPZ equations on the real line in polynomial weighted Holder spaces is obtained without using Cole-Hopf's transformation. (Received September 06, 2020)