1143-35-143 **Erhan Bayraktar** (erhan@umich.edu), Department of Mathematics, University of Michigan, Ann Arbor, MI 48109, and **Christian Keller*** (christian.keller@ucf.edu), Department of Mathematics, University of Central Florida, Orlando, FL 32816. *Path-dependent Hamilton-Jacobi equations in infinite dimensions.*

We propose notions of minimax and viscosity solutions for a class of fully nonlinear path-dependent PDEs with nonlinear, monotone, and coercive operators on Hilbert space. Our main result is well-posedness (existence, uniqueness, and stability) for minimax solutions. A particular novelty is a suitable combination of minimax and viscosity solution techniques in the proof of the comparison principle. One of the main difficulties, the lack of compactness in infinite-dimensional Hilbert spaces, is circumvented by working with suitable compact subsets of our path space. As an application, our theory makes it possible to employ the dynamic programming approach to study optimal control problems for a fairly general class of (delay) evolution equations in the variational framework. Furthermore, differential games associated to such evolution equations can be investigated following the Krasovskii-Subbotin approach similarly as in finite dimensions. (Received August 07, 2018)