Coupling distance between Levy measures and uniqueness of viscosity solutions of non-local HJB equations

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We will discuss a new approach to the proof of comparison principle for viscosity solutions of non-local Hamilton-Jacobi-Bellman equations. Comparison principle for such equations is still a largely open problem when the Levy measures appearing in the equations depend on the spacial variable. Our approach is based on the use of an optimal transport based distance between Levy measures and it allows to prove comparison results for a significantly larger class of equations. This is a joint work with Nestor Guillen and Chenchen Mou.