

First Joint Meeting Brazil Italy of Mathematics
Special Session: PDE methods in mean field games and
dynamics optimization

Rio de Janeiro, August 29 - September 02, 2016

Title: Stationary mean-field games and variational inequalities

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Abstract: We consider stationary monotone mean-field games (MFGs) and study the existence of weak solutions. We introduce a regularized problem that preserves the monotonicity and prove the existence of solutions to the regularized problem. Next, using Minty's method, we establish the existence of solutions for the original MFGs. Finally, we examine the properties of these weak solutions in several examples.