

# Mean Field Games planning problems with general initial and final measures

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The planning problem in Mean Field Games (MFG) was introduced by P.-L. Lions in his lessons, to describe models in which a central planner would like to steer a population to a predetermined final configuration while still allowing individuals to choose their own strategies. In a recent variational approach, see Graber, Mészáros, Silva and Tonon (2019) and Orrieri, Porretta and Savaré (2019) the authors studied the well-posedness of this problem in case of merely summable initial and final measures, using techniques, coming from optimal transport, introduced by Benamou and Brenier in 2000, extended to the congestion case in Carlier, Cardaliaguet and Nazaret (2013), and already used to show the existence and uniqueness of weak solutions for classical MFGs by Cardaliaguet and collaborators. The case of less regular initial and final measures is now studied via techniques introduced by Jimenez in 2008, for the analogous problem in optimal transport.

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