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Special Session: PDE methods in mean field games and
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Title: Mean Field Games with state constraints

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Abstract: We consider the behavior of more than one population consisting of a very large number of indistinguishable rational agents, aiming at minimizing some long-time average criterion. In this case, each population can be seen as satisfying an ergodic MFG system. When the populations are "xenophobic", i.e. the cost paid by an individual is increasing with respect to the distribution of the individuals of the other populations at his position, we expect the populations to partition the domain creating segregated configurations. We show the existence of a solution to the MFG system and the formation of segregated configurations at the singular limit.