

# Regularity Theory for a Mean-Field Game Model of Wealth and Capital Accumulation

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## Resumo/Abstract:

In this poster, we propose a mean-field game model (MFG, for short) of wealth and capital accumulation; because the underlying dynamics involves stochastic perturbations, the problem reduces to the coupling of a Hamilton-Jacobi with a Fokker-Planck equation, both of the second order. We produce a number of a priori estimates for solutions to this model, which, ultimately, lead to well-posedness of the system; these are new for the nature of the problem involves a class of (non-periodic) boundary conditions not yet addressed in the literature. This is based on the authors M.Sc. Thesis, produced under the direction of Prof. Edgard Pimentel.