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	Soggetti	Game theory Economics System theory Game Theory, Economics, Social and Behav. Sciences Economic Theory/Quantitative Economics/Mathematical Methods Systems Theory, Control
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	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	Preface -- Introduction -- Explicit solutions, special transformations, and further examples -- Estimates for the Hamilton-Jacobi equation -- Estimates for the Transport and Fokker-Planck equations -- The nonlinear adjoint method -- Estimates for MFGs -- A priori bounds for stationary models -- A priori bounds for time-dependent models -- A priori bounds for models with singularities -- Non-local mean-field games - existence -- Local mean-field games - existence -- References -- Index.
	Sommario/riassunto	Beginning with a concise introduction to the theory of mean-field games (MFGs), this book presents the key elements of the regularity theory for MFGs. It then introduces a series of techniques for well-posedness in the context of mean-field problems, including stationary and time-dependent MFGs, subquadratic and superquadratic MFG formulations, and distinct classes of mean-field couplings. It also explores stationary and time-dependent MFGs through a series of a-priori estimates for solutions of the Hamilton-Jacobi and Fokker-Planck equation. It shows sophisticated a-priori systems derived using a range

of analytical techniques, and builds on previous results to explain classical solutions. The final chapter discusses the potential applications, models and natural extensions of MFGs. As MFGs connect common problems in pure mathematics, engineering, economics and data management, this book is a valuable resource for researchers and graduate students in these fields.