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Nota di contenuto	Contents; 1 Introduction; 1.1 What is an Evolutionary Model; 1.2 Why Evolutionary Models?; 1.3 The Plan of What Follows; 2 Static Analysis; 2.1 Theoretical Framework; 2.1.1 Basic model; 2.1.2 Alternative scenarios: "Playing the Field" or "Pairwise Contests"; 2.2 Evolutionarily Stable Strategy; 2.2.1 General definition; 2.2.2 Alternative interpretations of ESS: monomorphic vs. polymorphic populations; 2.3 Examples; 2.3.1 Pairwise contests: the Hawk- Dove game; 2.3.2 Playing the field: the Sex-Ratio game; 2.4 ESS and Refinements of Nash Equilibrium; 2.5 The Existence of an ESS 2.6 Asymmetric Contests2.6.1 Introduction; 2.6.2 Ex ante symmetry with ex post asymmetries; 2.6.3 Example: the Hawk- Dove game revisited (I); 2.6.4 Extensive-form contests; 2.7 ESS and Finite Populations; 2.7.1 The "spite" of an ESS; 2.7.2 An example of oligopolistic competition; 2.8 Evolution and Cheap Talk; 3 Basic Dynamic Analysis; 3.1 Introduction; 3.2 The Replicator Dynamics; 3.2.1 The discrete-time case; 3.2.2 The continuous-time case; 3.2.3 Properties of the Replicator Dynamics; 3.3 The ESS and the Replicator

Dynamics; 3.3.1 The implicit dynamics of a monomorphic ESS
3.3.2 ESS conditions and polymorphic stability3.4 Evolutionary Dynamics and Nash Refinements; 3.5 Some Examples; 3.5.1 The Hawk-Dove game revisited (II); 3.5.2 The Rock-Scissors-Paper game; 3.6 Replicator Dynamics in Mixed Strategies; 3.6.1 The model; 3.6.2 ESS conditions and dynamic evolutionary stability; 3.7 Permanence and Survival; 3.7.1 Definitions; 3.7.2 Necessary conditions for persistence and permanence; 3.7.3 Sufficient conditions for permanence; 3.7.4 Average behaviour in permanent systems; 3.8 Population Genetics; 3.9 The Prisoner's Dilemma; 3.9.1 Basic (unperturbed) model
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5.7 The Evolution of Walrasian Behaviour

Sommario/riassunto

This textbook for advanced undergraduate and postgraduate students of Evolutionary Game Theory covers recent developments in the field, with an emphasis on economic contexts and applications. It begins with the basic ideas as they originated within the field of theoretical biology and then proceeds to the formulation of a theoretical framework that is suitable for the study of social and economic phenomena from an evolutionary perspective. Core topics include the EvolutionaryStable Strategy (EES) and Replicator Dynamics (RD), deterministic dynamic models, and stochastic perturbations. A set of