Record Nr. UNINA9910780813303321 Autore Sigmund Karl <1945-> Titolo The calculus of selfishness [[electronic resource] /] / Karl Sigmund Princeton, NJ,: Princeton University Press, c2010 Pubbl/distr/stampa **ISBN** 1-282-45880-9 9786612458804 1-4008-3225-X Edizione [Course Book] Descrizione fisica 1 online resource (185 p.) Princeton series in theoretical and computational biology Collana Disciplina 306.3/4 Soggetti Game theory Cooperativeness - Moral and ethical aspects Evolution (Biology) - Mathematics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Frontmatter -- Contents -- Preface -- Chapter One. Introduction: Social Traps and Simple Games -- Chapter Two. Game Dynamics and Social Learning -- Chapter Three. Direct Reciprocity: The Role of Repetition -- Chapter Four. Indirect Reciprocity: The Role of Reputation -- Chapter Five. Fairness and Trust: The Power of Incentives -- Chapter Six. Public Goods and Joint Efforts: Between Freedom and Enforcement -- Chapter Seven. Cooperation in Structured Populations -- References -- Index Sommario/riassunto How does cooperation emerge among selfish individuals? When do people share resources, punish those they consider unfair, and engage in joint enterprises? These questions fascinate philosophers, biologists. and economists alike, for the "invisible hand" that should turn selfish efforts into public benefit is not always at work. The Calculus of Selfishness looks at social dilemmas where cooperative motivations are subverted and self-interest becomes self-defeating. Karl Sigmund, a pioneer in evolutionary game theory, uses simple and well-known game theory models to examine the foundations of collective action and the effects of reciprocity and reputation. Focusing on some of the best-known social and economic experiments, including games such as

the Prisoner's Dilemma, Trust, Ultimatum, Snowdrift, and Public Good,

Sigmund explores the conditions leading to cooperative strategies. His approach is based on evolutionary game dynamics, applied to deterministic and probabilistic models of economic interactions. Exploring basic strategic interactions among individuals guided by self-interest and caught in social traps, The Calculus of Selfishness analyzes to what extent one key facet of human nature--selfishness--can lead to cooperation.