Milgrom, Paul; **Roberts, John**

Rationalizability, learning, and equilibrium in games with strategic complementarities. (English) Zbl 0728.90098

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Summary: We study a rich class of noncooperative games that includes models of oligopoly competition, macroeconomic coordination failures, arms races, bank runs, technology adoption and diffusion, R & D competition, pretrial bargaining, coordination in teams, and many others. For all these games, the sets of pure strategy Nash equilibria, correlated equilibria, and rationalizable strategies have identical bounds. Also, for a class of models of dynamic adaptive choice behavior that encompasses both best-response dynamics and Bayesian learning, the players' choices lie eventually within the same bounds. These bounds are shown to vary monotonically with certain exogenous parameters.

MSC:

91A10 Noncooperative games
91B62 Economic growth models
68T05 Learning and adaptive systems in artificial intelligence

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supermodular games; iterated dominance; noncooperative games; oligopoly; pure strategy Nash equilibria; correlated equilibria; rationalizable strategies; Bayesian learning; bounds

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