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"The Optimal Defense of Networks of Targets"

Abstract: This paper examines a game-theoretic model of attack and defense of multiple networks of targets in which there exist intra-network strategic complementarities among targets. The defender's objective is to successfully defend all of the networks and the attacker's objective is to successfully attack at least one network of targets. In this context, our results highlight the importance of modeling asymmetric attack and defense as a conflict between fully strategic actors with endogenous entry and force expenditure decisions as well as allowing for general correlation structures for force expenditures within and across the networks of targets.