

Strictly Competitive Games and Security Strategies

Two Player, strictly competitive games has the property that for every two strategy profiles $s, s' \in S$, $u_1(s) > u_1(s')$ if and only if $u_2(s) < u_2(s')$

↳ both players have opposite rankings of the outcomes

Strictly competitive = no room for joint game or compromise

Zero Sum Games

Security Strategy (worst case) $= w_i s_i \equiv \min_{s_j \in S_j} u_i(s_i, s_j)$

Security Payoff level $= \max_{s_i \in S_i} w_i(s_i)$

Maximin strategy \rightarrow lowest average