

Answers without explanation

This is not a confirmed version. I need to discuss with others.

1998 Spring 3. Repeated Games

(a) With Grim Trigger strategy, each agent gets 13 if she deviates optimally, but 12.5 if she follows G-T strategy. Since even G-T strategy doesn't work, there is no SGPE.¹

(b) (1) Play (U,L) if (U,L) is observed only ever.

(2) If COL deviates, ROW penalize COL by playing D.

If ROW deviates, COL penalize ROW by playing R.

This is NE with noncredible threat.

(c) Use Grim Trigger strategy with using as a punishment, unfavorable NE of the two in oneshot game.

1998 Spring 4. Bayesian Games

I assumed that the real payoff matrix is upper one with probability $\frac{1}{3}$, and lower one with probability $\frac{2}{3}$. The only BNE is

$$x = 1, z = \frac{3}{4}, y = \frac{1}{2}$$

In other words, upper type of ROW plays U only, lower type of ROW plays $\frac{3}{4}U + \frac{1}{4}D$, and COL plays $\frac{1}{2}L + \frac{1}{2}R$.

¹We can still check for the multiperiod punishment, but here it doesn't work too because the punishment itself would not be SGPE.