Sub Games

Definition

A subgame of $\Gamma = \{N, H, P, f_c, (\mathcal{I}_i)_{i \in N}\}$ has the following properties:

- it begins with an information set containing a single history $h \in H$, and contains all histories $h' \in H$ for which there exists $\tilde{h}$ such that $h' = (h, \tilde{h})$ and no other histories.
- If history $h \in I_i$ is in the subgame then every $h' \in I_i$ is also in the subgame.

Definition

A profile of strategies $\sigma = (\sigma)_{i \in N}$ is a subgame perfect equilibrium of $\Gamma = \{N, H, P, f_c, (\mathcal{I}_i)_{i \in N}\}$ if it induces a Nash equilibrium in every subgame of Γ.