Sequential Equilibria in a Class of Infinite Extensive Form Games

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Abstract :
Sequential equilibrium is one of the most fundamental refinements of Nash equilibrium for games in extensive form, but is not defined for extensive-form games in which a player can choose among a continuum of actions. We define a class of infinite extensive form games in which information behaves continuously as a function of past actions and define a natural notion of sequential equilibrium for this class. Sequential equilibria exist in this class and refine Nash equilibria. In standard finite extensive-form games, our definition selects the same strategy profiles as the traditional notion of sequential equilibrium.