Applications of Game Theory in Cooperative Communication Networks

Game theory is a mathematical tool to model the interactions among the smart players when they compete with one another or cooperate to achieve a common goal. Recent advances in electronics, computing and communications enable us to consider the current radio devices as smart agents who can observe the actions of other nodes in the network and make the appropriate actions to maximize their own benefits. In this talk, we provide an overview of different game theoretic models and their applications in communication networks. We also provide a game theoretic framework to model the cooperative relaying in communication networks.