Bandwidth allocation games (BAGs) represent a variation on the classic concept of congestion games, in which players choose a set of resources individually (a choice also denoted as their strategy) in order to maximize their own utility. This utility does not only depend on their own strategy, but the strategies of the other players, as well. For each resource chosen by a player, there is a certain demand, which influences how much that player gains from the resource as well as how much any other player on the same resource gains. In contrast to other congestion games, these demands are not fixed, but depend on the strategies of the players. We can regard this aspect of the game as the player choosing one of multiple locations, each with connection to the resources of varying quality.

In our model, resources have a limited capacity, which has to be split between the corresponding players if the total demand is too high. The talk deals with the nature of approximate Nash equilibria in such games. In these states, no single player is able to increase her own utility by more than some given constant factor through deviation from her current strategy. In particular, we give both an upper and lower bound for this factor. Another important aspect covered is the efficient computation of such states for instances in which all players share a common set of strategies.