Rendezvous search on a discrete finite labeled interval

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Abstract

A rendezvous search game describes a problem where a number of players are placed independent of each other in a region according to some distribution, which can be different for each player. Then the players have the common goal to meet each other as soon as possible.

We consider a rendezvous search game in which two players are initially placed on a discrete finite interval. Moreover we assume that both players have a common labeling of the interval. For this game we consider two problems, namely the symmetric problem and the asymmetric problem.

• In the symmetric problem both players are initially placed independent according to the same distribution. Then they must adopt the same search strategy to meet each other as soon as possible.

• In the asymmetric problem the distributions according to which the players are placed, will be different in general. Moreover now they are allowed to adopt different search strategies.

In the talk we will analyze this game. We will present analytical and numerical results, which will extend the known results such as given in [1], [2] and [3].

References