Rendezvous of heterogeneous agents and multimode graphs

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In the rendezvous problem, two mobile agents move along edges from node to node, with the goal of occupying the same node at the same time. Once, the time required to move along the edge is defined separately for each agent, we call them heterogeneous [1].

Intuitively, the very large weight assigned to an edge makes it practically inaccessible to the agent. This leads to a concept in which the graph G is given with two sets of edges E_A and E_B that define availability zones for A and B agents, respectively [2].

The very similar concept with separate edge sets that define availability zones was used to analyze evacuation and searching problems in graphs. In the independent studies, the same object is called a *multimode graph* [3] with the motivations coming from multi 'mode' transport where different 'modes' are not combinable, such as flights operated by different airline alliances.

References

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