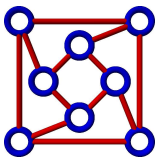

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METHODS OF DISCRETE MATHEMATICS IN SCHEDULING A SPORT TOURNAMENT

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During a real sports shooting tournament each two players have to meet at one of a certain small number of different shooting tracks. To assemble a schedule of the tournament in the spirit of fairness one needs to consider certain constrains. For instance:

- the number of players and the time available for the tournament,
- regular switching of sides for each player at the shooting tracks,
- regular switching of shooting tracks for each player,
- same lengths of pauses between the matches of each player.

We show how the tools of graph theory (decompositions of complete graphs) and design theory (latin squares, balanced tournament designs) can be used to obtain a fair schedule.