

◆ Research Paper

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Design theories and methods for running routes and slopes

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Abstract: Mountain marathon has attracted much attention and love, and its development is changing with each passing day. There is an urgent need for new methods and theories of marathon route development and design. For the safety of participants, the marathon route design needs to meet the requirements of slope and distance. This paper proposes the theory and method of marathon route design, which is embodied as a 5-step design method (downhill trajectory slope of equidistant points, interactive point layout, close route, route check, route adjustment), and further designs the interactive route design program. And a specific example is provided in the text. The 5-step design method and the compiled program have good operability and can complete the design of the marathon route very well. It has an excellent guiding value for the development and design of future marathon routes and can also be used to check the completed marathon routes.

Keywords: marathon route design; Interactive program; slope; route design theory; design method



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