

[1]陈进宝,张晓今,张青斌,等.基于Matlab的巡航靶弹水平机动弹道设计与仿真[J].弹箭与制导学报,2009,5:186.

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## 基于Matlab的巡航靶弹水平 机动弹道设计与仿真

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Title: The Design and Simulation of Lateral Maneuver Trajectory of Cruise Target Based on Matlab

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关键词: [Matlab仿真](#); [巡航式靶弹](#); [方案弹道](#); [水平机动](#)

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摘要: 基于Matlab模块化仿真设计思想, 根据某巡航式靶弹弹道模型的特点, 开发了由 9 个数学模型组成的完整的弹道设计与仿真模型, 建立了靶弹实现中空水平蛇形机动的方案飞行弹道计算模型, 对弹道进行仿真计算, 并对计算结果进行了分析。仿真计算表明, 该模型较好地模拟了靶弹的水平机动弹道和其他运动特征, 为总体分析和控制系统设计提供了依据。

Abstract: According to characteristics of the trajectory model of a certain cruise target, an integrated trajectory design and simulation model which was composed of nine mathematic models were developed based on Matlab. The project trajectory model of the cruise target missile which achieved lateral maneuver like a snake was built, the project trajectory was designed and simulated, and the results were analyzed. The conclusion shows that the lateral maneuver flight trajectory and other movement characters of the cruise target missile can be simulated preferably by this model and provide references for overall analysis and control system design.

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