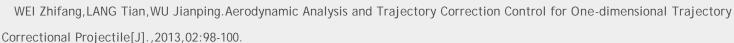
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[1]魏志芳,郎 田,吴建萍.一维弹道修正弹气动分析与射程修正控制算法[J].弹箭与制导学报,2013,02:98-100





## 一维弹道修正弹气动分析与射程修正控制算法 (PDF)

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Title: Aerodynamic Analysis and Trajectory Correction Control for One-

dimensional Trajectory Correctional Projectile

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关键词: 一维弹道修正弹; 气动特性; 阻力环; 射程修正能力

one-dimensional trajectory correction projectile; aerodynamic characteristics; Keywords:

drag brake; trajectory correction capability

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摘要: 为了提高炮弹的射击密集度,以安装有阻力环的一维弹道修正弹为研究对象,研究了阻力 环结构对弹丸气动特性的影响情况,及通过控制阻力环打开时刻实现射程修正控制的算

> 法。基于数值模拟方法,通过对相同外露高度和不同安装位置的阻力环结构方案进行外 流场数值仿真和气动力参数计算,得出不同模型的增阻情况,为一维弹道修正弹气动外形 设计提供参考。应用自编的一维弹道修正弹外弹道计算程序,分析了阻力环打开时刻对 修正能力的影响,研究了阻力环打开时刻的计算方法。研究结果可为一维弹道修正炮弹

的外弹道设计提供依据。

To improve concentration of projectiles, one-dimensional trajectory correctional Abstract:

> projectile with drag brake was studied. The effect on aerodynamic performance of drag brake to the projectile was analyzed, and the method controlling the

action time of drag brake was presented. By numerical simulation, the

aerodynamic performance for different structure of drag brake was studied where the outer height of the drag brake was same while the mounting position

was different, then the additional drag coefficient from different drag brake was

got, which can be referred for the design of aerodynamic structure of one

dimensional trajectory correction projectile. At the same time, using the selfprogramming software, the effect on trajectory correction capability of action

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time of drag brake was analyzed, and the computing method of the action time of drag brake was studied. The studying result can be the fundamentals for the exterior ballistic trajectory design of one-dimensional trajectory correction projectile.

## 参考文献/REFERENCES

- [1] 谭凤岗·弹道修正弹的概念研究[J].弹箭技术,1998(4):1-10.
- [2] 赵金强,龙飞,孙航.弹道修正弹综述[J].制导与引信,2005, 26(4):16-19.
- [3] 蔚微·一维弹道修正弹关键技术研究及其实现[D].成都:电子科技大学,2010.
- [4] 裔萍.一维弹道修正弹的气动力特性研究[D].南京:南京理工大学,2006.
- [5] 陶陶,王海川.一维弹道修正弹阻力环修正控制算法研究[J].指挥控制与仿真,2 009, 31(3):88-93.