

<<导弹制导原理>>

图书基本信息

书名：<<导弹制导原理>>

13位ISBN编号：9787512407527

10位ISBN编号：7512407521

出版时间：2012-6

出版时间：北京航空航天大学出版社

作者：江加和

页数：312

字数：454000

版权说明：本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问：<http://www.tushu007.com>

<<导弹制导原理>>

内容概要

The intent of this book is to present guidance and control principle of tactical missiles. It includes basic concepts of guided missile, fundamental concepts of vehicle dynamics, dynamical equation and kinematic equation of vehicle, longitudinal state equation and transfer function, lateral state equation and transfer function, fundamental principle of missile guidance and control system, guidance laws, autopilot design, command guidance systems, homing guidance systems, and guidance and control system hardware-in-the-loop simulation. This book is suitable for international postgraduate and advanced undergraduates majoring in navigation, guidance and control, and also suitable for engineering and technical personnel engaged in the design and development of guided missiles.

书籍目录

- CHAPTER 1 Introduction to Missile Guidance
- CHAPTER 2 Basic Knowledge of Flight Dynamics
- CHAPTER 3 Equatio of Motion for Vehicle
- CHAPTER 4 Longitudinal Motion
- CHAPTER 5 Lateral Motion
- CHAPTER 6 Flight Control of Missile
- CHAPTER 7 Guidance Laws
- CHAPTER 8 Autopilot Design
- CHAPTER 9 Command Guidance Systems
- CHAPTER 10 Homing Guidance Systems
- CHAPTER 11 Hardware-in-the-loop Simulation of Guidance and Control System

章节摘录

版权页：插图： When a vehicle flies in the air, it undergoes resistance which the air exerts. In order to overcome the resistance, it is necessary to consume engine power. Not only the vehicle wings produce resistance, but also any other part exposing to the air yields resistance. So the wing resistance can not represent the total resistance. As for a low speed vehicle, there are the friction resistance, the pressure deference resistance, and the induced resistance. For a supersonic vehicle, the shock wave results in the wave resistance. Anyway, the coefficient of drag consists of two terms as follows: $C_D = C_{D0} + C_{Di}$ (2.4-13) where C_{D0} = zero lift drag coefficient, C_{Di} = lift induced drag coefficient. In the case of a small angle of attack, the drag coefficient is represented as $C_D = C_{D0}(Ma) + K(Ma)C_L^2$ (2.4-14) Moreover, the drag coefficient depends on Mach number. Figure 2.4-5 shows the C_{D0} versus Mach number Ma curve in the case of $\alpha = 0$. Figure 2.4-6 shows the C_L versus C_D curve, called lift-drag polar curve. It indicates that a vehicle gets lift at the cost of producing resistance.

<<导弹制导原理>>

编辑推荐

《导弹制导原理》由北京航空航天大学出版社出版。

版权说明

本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问:<http://www.tushu007.com>