



航空学报 » 1986, Vol. 7 » Issue (5) : 433-443 DOI:

论文

[最新目录](#) | [下期目录](#) | [过刊浏览](#) | [高级检索](#)

[<<](#) [<](#) [前一页](#) | [后一页](#) [>](#) [>>](#)

Dryden大气紊流模型的数字仿真技术

赵震炎, 肖业伦, 施毅坚

北京航空学院

A DIGITAL SIMULATION TECHNIQUE FOR DRYDEN ATMOSPHERIC TURBULENCE MODEL

Zhao Zhenyan, Xiao Yelun, Shi Yijian

Beijing Institute of Aeronautics and Astronautics

摘要

参考文献

相关文章

Download: [PDF \(552KB\)](#) [HTML 0KB](#) Export: [BibTeX](#) or [EndNote \(RIS\)](#) [Supporting Info](#)

摘要 本文为如何利用电子计算机产生符合Dryden模型的三维大气紊流信号(包括三个速度分量和三个角速度分量)提出了一个比较严格和完整的方法。所得结果的可靠性可以通过相关函数来检验。最后还对飞行模拟器中如何使用这一数学模型提出了一些看法。

关键词:

Abstract: Dryden model is Usually used in studying the response of flight vehicle to atmospheric turbulence. For a modern flight simulator, it is necessary to generate random winds (in Dryden model or sometimes others) with a digital computer. In this paper, a theoretically stricted new method to meet this purpose is proposed. By this method, we can acquire a three-dimensional atmospheric turbulence which contains three components of wind velocity and three components of wind velocity gradient. The reliability of this method is checked by comparing with the autocorrelation value obtained from the theoretical autocorrelation value. A numerical example has shown a satisfactory result. Finally, some proposals about how to use this mathematical model in flight simulator are given.

Keywords:

Received 1985-10-31;

引用本文:

赵震炎;肖业伦;施毅坚. Dryden大气紊流模型的数字仿真技术[J]. 航空学报, 1986, 7(5): 433-443.

Zhao Zhenyan; Xiao Yelun; Shi Yijian. A DIGITAL SIMULATION TECHNIQUE FOR DRYDEN ATMOSPHERIC TURBULENCE MODEL[J]. Acta Aeronautica et Astronautica Sinica, 1986, 7(5): 433-443.

Service

- ▶ [把本文推荐给朋友](#)
- ▶ [加入我的书架](#)
- ▶ [加入引用管理器](#)
- ▶ [Email Alert](#)
- ▶ [RSS](#)

[作者相关文章](#)