



航空学报 » 1995, Vol. 16 » Issue (4) :19-24 DOI:

论文

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

[<<](#) [<](#) [前一篇](#) | [后一篇](#) [>](#) [>>](#)

跨音速机翼数值优化设计方法

朱一锟

北京航空航天大学流体力学研究所

NUMERICAL OPTIMIZATION METHOD FOR TRANSONIC WING DESIGN

Zhu Yikun

Institute of Fluid Mechanics, Beijing University of Aeronautics and Astronautics, Beijing, 100083) H.Sobieczky (DLR Inst.f.Fluid Mechanics, Bunsenstr.10, D 37073, Gttingen, Germany

摘要

参考文献

相关文章

Download: [PDF \(340KB\)](#) [HTML OKB](#) Export: [BibTeX](#) or [EndNote \(RIS\)](#) [Supporting Info](#)

摘要 优化设计方法由机翼外形和计算网格生成方法、跨音速机翼全位势方程数值解法和数值优化算法等方法组成。采用独特的机翼外形曲线拟合函数摄动方法来改变机翼。数值实验表明, 只须在半翼展中部剖面上选择两个结点处的翼面坐标进行摄动, 即可获得气动上满意的优化解答, 并可节省大量机时。

关键词:

Abstract: The method consists of wing geometry and grid generation, transonic full potential solver and numerical optimization algorithm, etc. An especial perturbation technique of curve fitting shape function is applied for variation of the wing shape. Numerical test indicated that it only needed to perturb the ordinates of two spline support points located at the section of the middle semispan of the wing. An aerodynamically satisfactory optimization solution can be obtained, greatly saving the CPU time.

Keywords:

Received 1994-02-02;

引用本文:

朱一锟. 跨音速机翼数值优化设计方法[J]. 航空学报, 1995, 16(4): 19-24.

Zhu Yikun . NUMERICAL OPTIMIZATION METHOD FOR TRANSONIC WING DESIGN[J]. Acta Aeronautica et Astronautica Sinica, 1995, 16(4): 19-24.

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](#)