<<第四届喷气推进与动力工程国际 >

图书基本信息

书名：<<第四届喷气推进与动力工程国际会议>>

13位ISBN编号：9787561234419

10位ISBN编号：7561234414

出版时间：2012-8

出版时间：第四届喷气推进与动力工程国际会议科学委员会组织委员会、第四届喷气推进与动力工程国际会议科学委员会、 组织委员会 西北工业大学出版社 (2012-08出版)

内容概要

《第4届喷气推进与动力工程国际会议论文集》主要目的是总结或回顾近年来喷气推进与动力工程领域取得的主要进展，促进领域内学者和专家之间广泛交流，使之成为国内外科技人员激情创新、合作奋进的舞台。
会议交流使用的正式语言为英语。

书籍目录

章节摘录

版权页： 插图： The turbine researchers are always trying toimprove the aerodynamic performance and reduce thelosses in turbines.A main source of losses is secondaryflow loss.Secondary flows involving cross flow andthree-dimensional separation phenomena contributesignificantly to a reduction in overall efficiency andsecondary losses increase as the aerodynamic dutyincreases or aspect ratio decreases.In a turbine bladepassage,a number of vertical flow features arepresented,which are collectively known as thesecondary flows.A comprehensive and detailed reviewof these is given by Sieverding. In the past years,a variety of methods have beendeveloped to reduce secondary flows.One of the mostactive approaches is non-axisymmetric end-wallprofiling,whose application in turbines has been provedto be effective in reducing secondary losses andimproving overall efficiency by many turbineresearchers.During the past decades,emergingcomputational fluid dynamics (CFD) capabilities havemade it possible to design more complex threedimensional non-axisymmetric end walls.Nonaxisymmetric end-wall profiling using such capabilitieswas initially proposed by Rose.His study wasaimed at controlling and equalizing the end-wall staticpressure field at the platform of trailing edge,in order toreduce the turbine disk coolant leakage flow.LaterHartland et al.and Ingram et al.investigatednon-axisymmetric end-wall profiling in the Durhamlinear cascade and showed that significant reduction ofsecondary losses was achievable.Brennan et al.andRose et al.demonstrated an increase in stageefficiency of 0.4 from computations and 0.59±0.25%from measurements.Duden et al.and Eymann etal.investigated the combined effects of end-wallcontouring and airfoil profiling.

编辑推荐

《第4届喷气推进与动力工程国际会议论文集》编著者第四届喷气推进与动力工程国际会议科学委员会、组织委员会。
为促进学科发展、国际交流合作以及人才培养，我院将于2012年9月10日～12日在西安举办第四届喷气推进与动力工程国际会议（4thISJPPE）。
会议由我院主办，北航、南航和德国亚琛工业大学（RWTHAachenUniversity）协办。