

Nonlinear fluid structure interaction models in Aero-engine

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摘要: In this talk we study some nonlinear fluid structure interaction models in aero-engine. Firstly, based on the existing nonlinear dynamic model of blade vibration of rotating thin-walled beam, plate or shell in vibration mechanics, and combined with the geometric structure of blade device in aero-engine and the practical application characteristics such as high-speed rotation and high pressure in transonic flow field, the nonlinear FSI dynamic mathematical models of blade vibration in aero-engine are proposed and reviewed. Then, some theoretical analysis results obtained recently on some FSI models of incompressible fluid for aero-engine are given.

邀请人: 边东芬

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