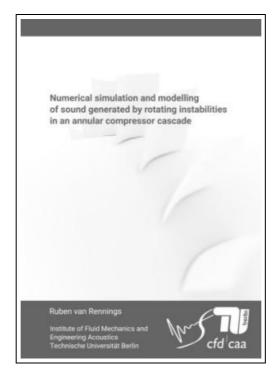
Numerical simulation and modelling of sound generated by rotating instabilities in an annular compressor cascade



Filesize: 6.24 MB

Reviews

The ebook is simple in go through better to fully grasp. It is actually rally exciting through reading through period. It is extremely difficult to leave it before concluding, once you begin to read the book.

(Alexander Jacobi)

NUMERICAL SIMULATION AND MODELLING OF SOUND GENERATED BY ROTATING INSTABILITIES IN AN ANNULAR COMPRESSOR CASCADE



To get Numerical simulation and modelling of sound generated by rotating instabilities in an annular compressor cascade PDF, make sure you click the button under and download the document or gain access to other information which are in conjuction with NUMERICAL SIMULATION AND MODELLING OF SOUND GENERATED BY ROTATING INSTABILITIES IN AN ANNULAR COMPRESSOR CASCADE ebook.

Book Condition: New. Publisher/Verlag: epubli | This work addresses the phenomenon of rotating instability, which is known to occur in turbomachines of axial and radial types. A methodology of proving the RI mechanism and its results is presented. | This work addresses the phenomenon of rotating instability (RI), which is known to occur in turbomachines of axial and radial types. In axial compressors, RI typically occurs in the vicinity of the stability line. Without occurrence of RI, high efficiencies would be achieved there. The emergence of RI is accompanied by an increase in acoustic emissions, a decrease in efficiency and high amplitude pressure fluctuations, which feature a characteristic structure. Under unfavorable conditions these pressure fluctuations may cause blade vibrations and lead to mechanical failure due to high cycle fatigue. In order to prevent inception of RI and thus to utilise the high efficiencies of the compressor system, detailed knowledge of the flow phenomenon is necessary. A large number of descriptions and interpretations of RI characteristics are found in literature. After a brief introduction to theoretical aspects of axial compressor systems and flow phenomena occurring therein the fundamentals of CFD are described. Details of application of CFD to the flow through the annular compressor cascade are followed by validation of RI occurrence within the flow simulation. A hypothesis on the originating mechanism of the characteristic pressure fluctuations of RI is then formulated based on detailed analyses of simulation data. The identified flow configuration is modelled by fundamental solutions from potential theory. From the temporal integration of the modelled flow states a fluid flow dynamic develops, which is very similar to that related to RI. Pressure and velocity fluctuations calculated by the model fulfil all criteria typically applied to measured or simulated data in order to detect occurrence of RI. In this way,...

- Read Numerical simulation and modelling of sound generated by rotating instabilities in an annular compressor cascade Online
- Download PDF Numerical simulation and modelling of sound generated by rotating instabilities in an annular compressor cascade
- Download ePUB Numerical simulation and modelling of sound generated by rotating instabilities in an annular compressor cascade

Relevant PDFs



[PDF] Children's Educational Book: Junior Leonardo Da Vinci: An Introduction to the Art, Science and Inventions of This Great Genius. Age 7 8 9 10 Year-Olds. [Us English]

Access the web link below to download "Children's Educational Book: Junior Leonardo Da Vinci: An Introduction to the Art, Science and Inventions of This Great Genius. Age 789 10 Year-Olds. [Us English]" PDF document.

Read PDF »



[PDF] The Pursued: Is That Drum Beats? Lamar Stein Heard Beats Warning of an Evil Set Loose on Piedmont! This Is the Root Hard or Die Story of the Life and Times of My Father and Mother. My Sister and Me, Bystanders on Appalachian Mountains Hillsides. (Paperbac

Access the web link below to download "The Pursued: Is That Drum Beats? Lamar Stein Heard Beats Warning of an Evil Set Loose on Piedmont! This Is the Root Hard or Die Story of the Life and Times of My Father and Mother. My Sister and Me, Bystanders on Appalachian Mountains Hillsides. (Paperbac" PDF document.

Read PDF »



[PDF] Children s Educational Book Junior Leonardo Da Vinci : An Introduction to the Art, Science and Inventions of This Great Genius Age 7 8 9 10 Year-Olds. [British English]

Access the web link below to download "Children's Educational Book Junior Leonardo Da Vinci: An Introduction to the Art, Science and Inventions of This Great Genius Age 78910 Year-Olds. [British English]" PDF document.

Read PDF »



[PDF] Welcome to Bordertown: New Stories and Poems of the Borderlands

Access the web link below to download "Welcome to Bordertown: New Stories and Poems of the Borderlands" PDF document.

Read PDF »



[PDF] Index to the Classified Subject Catalogue of the Buffalo Library; The Whole System Being Adopted from the Classification and Subject Index of Mr. Melvil Dewey, with Some Modifications .

Access the web link below to download "Index to the Classified Subject Catalogue of the Buffalo Library; The Whole System Being Adopted from the Classification and Subject Index of Mr. Melvil Dewey, with Some Modifications." PDF document.

Read PDF »



[PDF] Two Treatises: The Pearle of the Gospell, and the Pilgrims Profession to Which Is Added a Glasse for Gentlewomen to Dresse Themselues By. by Thomas Taylor Preacher of Gods Word to the Towne of Reding. (1624-1625)

Access the web link below to download "Two Treatises: The Pearle of the Gospell, and the Pilgrims Profession to Which Is Added a Glasse for Gentlewomen to Dresse Themselues By. by Thomas Taylor Preacher of Gods Word to the Towne of Reding. (1624-1625)" PDF document.

Read PDF »



[PDF] Born Fearless: From Kids' Home to SAS to Pirate Hunter - My Life as a Shadow Warrior

Click the hyperlink listed below to download and read "Born Fearless: From Kids' Home to SAS to Pirate Hunter - My Life as a Shadow Warrior" file.

Download eBook »



[PDF] Sport is Fun (Red B) NF

Click the hyperlink listed below to download and read "Sport is Fun (Red B) NF" file.

Download eBook »



[PDF] Now and Then: From Coney Island to Here

Click the hyperlink listed below to download and read "Now and Then: From Coney Island to Here" file.

Download eBook »



[PDF] Everything Ser The Everything Green Baby Book From Pregnancy to Babys First Year An Easy and Affordable Guide to Help Moms Care for Their Baby And for the Earth by Jenn Savedge 2009 Paperback

Click the hyperlink listed below to download and read "Everything Ser The Everything Green Baby Book From Pregnancy to Babys First Year An Easy and Affordable Guide to Help Moms Care for Their Baby And for the Earth by Jenn Savedge 2009 Paperback" file.

Download eBook »



[PDF] Kindergarten Culture in the Family and Kindergarten; A Complete Sketch of Froebel's System of Early Education, Adapted to American Institutions. for the Use of Mothers and Teachers

Click the hyperlink listed below to download and read "Kindergarten Culture in the Family and Kindergarten; A Complete Sketch of Froebel's System of Early Education, Adapted to American Institutions. for the Use of Mothers and Teachers" file.

Download eBook »



$\ensuremath{\left[\mathsf{PDF} \right]}$ Kid Toc: Where Learning from Kids Is Fun!

 ${\it Click the hyperlink listed below to download and read "Kid Toc: Where Learning from Kids Is Fun!" file.}$

Download eBook »