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Advanced Cycles and Turbopumps

[155] A global approach to assessing the potential of combined cycles using supercritical technology

Authors:

- Gonzalo S. Martínez*
- David Sánchez**
- Francesco Crespi**
- Giacomo Gavagnin**

Affiliation:

*AICIA

Spain

**University of Seville

Spain

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[166] Cycle and LCOE Optimization for an Integrally Geared sCO₂ Compressor for Concentrating Solar Power Applications

Authors:

- Jason Wilkes*
- Jeffrey Bennett*
- Joshua Schmitt*
- Tim Allison*
- Robert Pelton**
- Karl Wygant**

Affiliation:

*Southwest Research Institute

USA

**Hanwha Techwin

USA

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[185] Measurement Of Thermal Parameter And Reynolds Number Effects On Cavitation Instability Onset In A Turbopump Inducer

Authors:

- Junho Kim
- Seung Jin Song

Affiliation:

Seoul National University

Korea

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Aircraft Propulsion

[78] Exploratory Assessment of a Combined-Cycle Engine Concept for Aircraft Propulsion

Authors:

- Carlo De Servi
- Lucia Azzini
- Matteo Pini
- Arvind Gangoli Rao
- Piero Colonna

Affiliation:

Delft University of Technology

Netherlands

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Axial Compressors

[41] PIV-Measurements of the transient flow structure in the tip region of a transonic compressor near stability limit

Authors:

→ Christoph Brandstetter
→ Heinz-Peter Schiffer

Affiliation:

Technische Universität Darmstadt,
Institute of Gas Turbines and Aerospace
Propulsion
Germany

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[59] Experimental Investigation of Stall Precursor Suppressed (SPS) Casing Treatment in a Two-Stage Axial Compressor

Authors:

→ Dakun Sun → Xu Dong
→ Fanyu Li → Sun Xiaofeng

Affiliation:

Beihang University
China

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[67] Stability Enhancement with Self-recirculating Injection in Axial Flow Compressor

Authors:

→ Jichao Li
→ Juan Du
→ Feng Lin

Affiliation:

Institute of Engineering, Thermophysics,
Chinese Academy of Sciences
China

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[82] Unsteady Measurements on Rotor blade Wake of an Axial Compressor under Varying Stall Margins

Authors:

→ Sichen Wang
→ Feng Lin
→ Juan Du

Affiliation:

Institute of Engineering, Thermophysics,
CAS
China

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[84] Experimental Study of Circumferential Propagation Features Induced by Unsteady Tip Leakage Flow in Axial Compressor

Authors:

→ Shaojuan Geng
→ Bing Bai
→ Hongwu Zhang
→ Jichao Li
→ Chaoqun Nie

Affiliation:

Institute of Engineering Thermophysics,
Chinese Academy of Sciences
China

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[128] Application of Sweep to Transonic Compressor Rotor Blade for Low-order Statistical Moment Averaging in Robust Design

Authors:

→ Jan Kamenik

University of Southampton

Affiliation:

United Kingdom

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[132] Prediction of Rotating Stall during Start Up for Axial Compressors

Authors:

→ Ryosuke Mito*
→ Thomas Walker**
→ Masamitsu Okuzono***

Affiliation:

*MHI

Japan

**MHIA

USA

***MHPS

Japan

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[152] The sensitivity of 3D separations in multi-stage compressors

Authors:

→ Kiran Auchoybur
→ Robert Miller

Affiliation:

University of Cambridge

United Kingdom

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Oil & Gas

[161] Challenges and Opportunities of Electric Driven Compressors in the Oil and Gas Industry

Authors:

- Andrea Cortinovis
- Mehmet Mercangoez
- Thomas Besselmann

Affiliation:

ABB Corporate Research
Switzerland

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Axial Turbines

[23] Identification of Different Unsteady Loss Sources in a LPT Cascade Passage: A Pod Based Procedure

Authors:

- Daniele Simoni*
- Davide Lengani*
- Marina Ubaldi*
- Pietro Zunino*
- Francesco Bertini**

Affiliations:

*University of Genova
Italy
**GE Avioaero S.r.l.
Italy

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[32] Investigation of the Flow Field in a Gas Turbine Exhaust Diffuser at Design and Part Load Conditions

Authors:

- Vincenzo Dossena*
- Giacomo Persico*

Global Power & Propulsion Society, Industriestrasse 7, 6300 Zug, Switzerland

- Berardo Paradiso*
- Claudio Bettini**
- Claudio Canelli**
- Stefano Cecchi**
- Federico Dacca**

Affiliation:

*Politecnico di Milano
Italy
**Ansaldo Sviluppo Energia
Italy

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[47] Application of Pressure and Temperature Sensitive Paint on a Highly Loaded Turbine Guide Vane in a Transonic Linear Cascade

Authors:

- Michael Hilfer*
- Sebastian Dufhaus**
- Daisuke Yorita*
- Christian Klein*
- Anna Petersen*

Affiliations:

*German Aerospace Center, DLR

Germany

**Institute of Aerospace Systems at RWTH Aachen University

Germany

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[58] Unsteady Vortex Interaction near Turbine Rotor Tip and Its Loss Mechanism

Authors:

- Zhou Kai
 - Zhou Chao
- Peking University
China

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[72] Turbine Cascade End-wall Loss - Inlet Conditions and Vorticity Amplification

Authors:

- John Coull*
- Christopher Clark*
- Raul Vazquez**

Axial Turbines

Affiliations:

*University of Cambridge
United Kingdom

**Rolls-Royce
United Kingdom

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[92] Novel High-Pressure Turbine Purge Control Features For Increased Stage Efficiency

Authors:

→ Rainer Schädler*
→ Anestis I. Kalfas**
→ Reza S. Abhari*
→ Gregor Schmid***
→ Tilmann Auf Dem Kampe*** → Sanjay B. Prabhu****

Affiliations:

*ETH Zurich
Switzerland

**Aristotle University of Thessaloniki
Greece

***Siemens AG
Germany

****Siemens Energy, Inc.
USA

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[142] The Role of Curvature in Turbomachinery Design

Authors:

→ Mark Turner

Affiliation:

University of Cincinnati
USA

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[164] A Framework For An Integrated Turbine Rotor Design System

Authors:

→ Abdulhalim Twahir*
→ Hany Moustapha*
→ Sylvie Dore*
→ Francois Roy**

Affiliation:

*ETS

Canada

**Pratt & Whitney Canada

Canada

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Combustion

[10] In situ identification of thermoacoustic stability in annular combustors

Authors:

→ Driek Rouwenhorst*
→ Jakob Hermann*
→ Wolfgang Polifke**

Affiliation:

*IfTA Ingenieurbuero fuer Thermoakustik
Germany

**Technical University of Munich
Germany

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[24] Application of a three-step approach for the prediction of combustion instabilities in industrial gas turbine burners

Authors:

→ Dmytro Iurashev*
→ Giovanni Campa**
→ Vyacheslav Anisimov**
→ Ezio Cosatto**
→ Luca Rofi**
→ Edoardo Bertolotto**

Affiliation:

*Università di Genova
Italy

**Ansaldo Energia
Italy

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[29] Large Eddy Simulation of a liquid jet in crossflow using a Quasi Multiphase Eulerian approach for atomization modelling

Authors:

→ Stefano Puggelli*
→ Antonio Andreini*
→ François-Xavier Demoulin**

Combustion

→ Lorenzo Mazzei*

Affiliation:

*Department of Industrial Engineering
(DIEF) - University of Florence
Italy

**CNRS CORIA UMR 6614 -
University of Rouen
France

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[30] Thermodynamic evaluation of shockless explosion combustion for gas turbine power cycles

Authors:

→ Panagiotis Stathopoulos
→ Johann Vinkeloe
→ Christian Oliver Paschereit

Affiliation:

TU Berlin
Germany

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[42] Proposal and validation of a simple model for mean diameter and size distribution by liquid sheet atomization

Authors:

→ Chihiro Inoue
→ Toshinori Watanabe
→ Takehiro Himeno
→ Seiji Uzawa

Affiliation:

The University of Tokyo
Japan

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[45] Multi-Physics Simulations of an Aero Engine Combustor with OpenFOAM

Authors:

→ Marco Konle
→ Ludovic Deguillebon

→ Francois Cottier

Affiliation:

MTU Aero Engines AG
Germany

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[53] Experimental Investigation of Hydrogen-Methane-Air Flame Flashback in a Model Swirl Combustor

Authors:

→ Dominik Ebi*
→ Rakesh Ranjan**
→ Noel Clemens**

Affiliation:

*Paul Scherrer Institut
Switzerland
**The University of Texas at Austin
USA

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[61] Benchmarking Data from the Experience Gained in Engine Performance and Emissions Testing for Alternative Fuels for Aviation

→ Wajid Chishty*
→ Tak Chan**
→ Pervez Canteenwalla*
→ Craig Davison*
→ Jennifer Chalmers*

*National Research Council Canada
Canada
**Environment and Climate Change
Canada
Canada

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[64] Staged combustion concept for increased operational flexibility of gas turbines

→ Peter Stuber*
→ Klaus Knapp**
→ Dieter Winkler*

→ Weiqun Geng*

→ Timothy Griffin*

→ E. Geoffrey Engelbrecht*

*FHNW, School of Engineering
Switzerland

**Ansaldo Energia Switzerland Ltd
Switzerland

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[81] Thermo-acoustic characterization of can-can interaction of a can-annular combustion system based on unsteady CFD LES simulation

Authors:

→ Lukasz Panek
→ Federica Farisco
→ Michael Huth

Affiliation:

Siemens AG
Germany

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[83] Flame anchoring mechanisms in sequential combustors

Authors:

→ Oliver Schulz
→ Nicolas Noiray

Affiliation:

ETH Zurich
Switzerland

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[120] The effect of the time delay between pressure and heat release for low-order models of thermoacoustic instabilities

Authors:

→ Giulio Ghirardo*

Combustion

→ Matthew P. Juniper**

→ Mirko R. Bothien**

Affiliation:

*Ansaldo Energia Switzerland
Switzerland

**University of Cambridge
United Kingdom

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[125] Towards the modelling of turbulent flames subjected to strong heat losses for GT applications

Authors:

→ Daniel Mira*

→ Simon Gövert**

→ Jim B.W. Kok**

→ Mariano Vázquez*

→ Guillaume Houzeaux*

→ Oriol Lehmkuhl*

Affiliation:

*BSC

Spain

**University of Twente
Netherlands

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[141] Automated Design Space Exploration of the Hydrogen Fueled “Micromix” Combustor Technology

Authors:

→ Anis Haj Ayed*

→ Constantin Striegan*

→ Karsten Kusterer*

→ Harald H.-W. Funke**

→ M. Kazari***

→ Atsushi Horikawa***

→ Kunio Okada***

Affiliation:

*B&B-AGEMA

Germany

**Aachen University of Applied Sciences
Germany

***Kawasaki Heavy Industries

Japan

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[147] Full-Stage Performance of Integrated Com-bustor Vane Concept

→ Simon Jacobi*

→ Kouichi Ishizaka**

→ Budimir Rosic*

*University of Oxford

United Kingdom

**Mitsubishi Heavy Industries

Japan

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[165] Experimental and Numerical Investigation of DLN Combustor for a Heavy-Duty Gas Turbine

Authors:

→ Shinichi Fukuba

→ Yuichiro Kimura

→ Yusuke Tanaka

→ Mitsunori Isono

→ Satoshi Takiguchi

→ Toshihiko Saitoh

→ Keiji Saitoh

Affiliation:

Mitsubishi Heavy Industries, Ltd.

Japan

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[178] On the identification of combustion instability mechanisms in industrial gas turbine combustors

→ Sikke Klein

TU Delft

Netherlands

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[186] Analytical Study Of Combustion Instability In Silo Gas Turbine Combustor

Authors:

→ Somayeh Nosrati Shoar

→ Abbas Fakhr Tabatabaei

→ Alireza Ranjbaran

Affiliation:

MAPNA Turbine Engineering & Manufacturing Co. (TUGA)

Iran

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Control and Instrumentation

[18] Exploiting Modern Image Processing in Surface Flow Visualisation

Authors:

- Tarek Abdelsalam*
- Grant Ingram**
- Richard Williams**

Affiliation:

- *The British University in Egypt
Egypt
- **Durham University
United Kingdom

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[86] Accelerated thermal profiling of gas turbine components using luminescent Thermal History Paints

Authors:

- Silvia Araguás Rodríguez*
- Tomáš Jelínek**
- Jan Michálek**
- Álvaro Yáñez González*
- Fiona Schulte*
- Christopher Pilgrim*
- Joerg Feist*
- Stephen Skinner***

Affiliation:

- *Sensor Coating Systems, Imperial College London
United Kingdom
- **VZLU – Aerospace Research and Test Establishment
Czech Republic
- ***Imperial College London
United Kingdom

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[88] Experimental Methods for Performance and Reliability of Steam and Gas turbines

Authors:

- Ilias Bosdas*
- Michel Mansour**
- Anestis Kalfas***
- Reza Abhari*

Affiliation:

- *ETH Zurich
Switzerland
- **Limmat Scientific AG
Switzerland
- ***Aristotle University of Thessaloniki
Greece

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[107] Preliminary Study of Glow Discharge Plasma on the Static Pressure Measurement

Authors:

- Fan Li*
- Junkai Jiao**
- Haiyun Luo**
- Juan Du***
- Feng Lin***

Affiliation:

- *Institute of Engineering Thermophysics, Chinese Academy of Sciences
China
- **Gas Discharge and Plasma Laboratory, Department of Electrical Engineering Tsinghua University
China
- ***Institute of Engineering Thermophysics, Chinese Academy of Sciences
China

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[129] Model-Based Compensation of Sensor Failure in Industrial Gas Turbines

Authors:

- Vili Panov*
- Sepehr Maleki**

Affiliation:

- *Siemens Industrial Turbomachinery Ltd.
United Kingdom
- **University of Lincoln
United Kingdom

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[131] Feasibility study of rotating blade health monitoring using bearing pedestal acceleration signal

Authors:

- Satoshi Saburi
- Naoyuki Nagai
- Akihiro Nakaniwa
- Yuichiro Sawada

Affiliation:

- Mitsubishi Heavy Industries, LTD.
Japan

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Cycles

[14] A New Overall Approach To Quantify Wet Compression In Applications Like Gas Turbines

Authors: → Hans E. Wettstein

Affiliation:

HEW, Switzerland

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[55] Gas turbine advanced power systems to improve SOFC economic viability

Authors:

→ Valentina Zaccaria*

→ David Tucker*

→ Alberto Traverso**

Affiliation:

*U.S. Department of Energy, NETL

USA

**University of Genoa

Italy

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[76] Improvement of the Turn-Down Ratio of Gas Turbines by Autothermal On Board Syngas Generation

Authors:

→ Max Baumgärtner

→ Thomas Sattelmayer

Affiliation:

Technische Universität München - Lehrstuhl für Thermodynamik

Germany

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[193] Conceptual Design of Closed-Cycle Helium Turbine System for Central Receiver Solar Electric Power Generation

Authors:

→ Tingfeng Ke

→ Jingxuan Zhang

→ Weiguang Huang

→ Yubo Zhu

Affiliation:

Shanghai Advanced Research Institute
China

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Electric Power and Wind Turbines

[6] Pressure gain combustion advantage in land-based electric power generation

Authors:

→ John Gulen

Affiliation:

Bechtel Infrastructure & Power Corporation

USA

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[49] Operational and Financial Performance of Fossil Fuel Power Plants Within a High Renewable Energy Mix

Authors:

→ Patrick Eser

→ Ndaona Chokani

→ Reza Abhari

Affiliation:

Laboratory for Energy Conversion, ETH Zurich

Switzerland

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[51] A combined experimental and numerical analysis of the wake structure and performance of a H-shaped Darrieus wind turbine

Authors:

→ Alessandro Bianchini*

→ Francesco Balduzzi*

→ Giovanni Ferrara*

→ Lorenzo Ferrari**

→ Giacomo Persico***

→ Vincenzo Dossena****

→ Lorenzo Battisti****

Affiliation:

*Department of Industrial Engineering -

University of Florence, **Italy**

National Research Council of Italy, **Italy

***Dipartimento di Energia - Politecnico di Milano, **Italy**

****Dipartimento di Ingegneria Civile, Ambientale e Meccanica - Università di Trento, **Italy**

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[56] Designing and Testing Small-Scale Horizontal Axis Wind Turbines for the Urban Environment

Authors:

→ **Kenneth Van Treuren**

→ **Andrew Hays**

Affiliation:

Baylor University, **USA**

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General

[40] Antistall ring in tunnel and metro fan: measured characteristic curves stabilization and numerical analysis of flow control

Authors:

→ **Tommaso Bonanni***

→ **Alessandro Corsini***

→ **Giovanni Delibra***

→ **Anthony G. Sheard****

→ **David Volponi***

Affiliation:

*Dept. of Mechanical and Aerospace Engineering, Sapienza University of Rome
Italy

**AGS Consulting, LLC

Italy

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[159] Development of a SysML Framework for Gas Turbine Design under Uncertainty

Authors:

→ **Arun Ramamurthy***

→ **Frederic Villeneuve***

→ **Jose Valenzuela Del Rio****

→ **Jelena Veer***

Affiliation:

*Siemens

USA

**Siemens

Germany

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Heat Transfer

[77] Effect of holes arrangement on heat transfer in impingement/effusion cooling double wall schemes

Authors:

→ Lorenzo Cocchi*
→ Alessio Picchi*
→ Lorenzo Mazzei*
→ Antonio Andreini*
→ Lorenzo Bellocchi**

Affiliation:

*Università degli Studi di Firenze - Dipartimento di Ingegneria Industriale

Italy

**GE Avio s.r.l.

Italy

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[95] Effect of Purge Air on Endwall Heat Transfer on the Rotor of an Axial Gas Turbine

Authors:

→ Sebastiano Lazzi Gazzini*
→ Rainer Schädler*
→ Anestis I. Kalfas**
→ Reza S. Abhari*
→ Sebastian Hohenstein***
→ Gregor Schmid***
→ Ewald Lutum****

Affiliation:

*LEC, ETH Zürich

Switzerland

**Aristotle University of Thessaloniki

Greece

***Siemens AG

Germany

****MTU Aero Engines AG

Germany

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[118] Turbine Blade Tip Aero-Thermal Management: Some Recent Advances and Research Outlook

Authors:

→ Qiang Zhang*
→ Li He**

Affiliation:

*City University London

United Kingdom

**Oxford University

United Kingdom

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[127] Impacts of Film Cooling Parameters on Aerodynamic Loss of a Cooled Turbine Vane

Authors:

→ Xiao-Chun Lin*
→ Jian-Jun Liu**
→ Chen Li*
→ Jing-Lun Fu**

Affiliation:

* Key Laboratory of Advanced Energy and Power, Institute of Engineering, Thermophysics, Chinese Academy of Sciences

China

* Key Laboratory of Light-Duty Gas Turbine, Institute of Engineering Thermophysics, Chinese Academy of Sciences

China

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Heat Transfer and Unsteady Flow – Heat Transfer

[60] Tip Gap Size Effects on Thermal Performance of Cavity-winglet Tips in Transonic Turbine Cascade with Endwall Motion

Authors:

→ Chao Zhou
→ Fangpan Zhong
Peking University
China

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[91] A simplified method for wall temperature prediction in externally cooled turbines

Authors:

→ Riccardo Poli
→ Matteo Pini
→ Arvind Gangoli Rao

Affiliation:

TU Delft
Netherlands

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[158] A New Rotating Facility for Investigating Cooling Passage Internal Heat Transfer

Authors:

→ Randall Mathison
→ Michael Dunn

Affiliation:

The Ohio State University Gas Turbine Laboratory
USA

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[171] High Fidelity CHT CFD For Gas Turbine Heat Transfer Applications

Authors:

→ Jose Rodriguez*
→ Philipp Cavadini**
→ Marco Brunelli*
→ Chad Custer***
→ Cassandra Carpenter***

Affiliation:

*Siemens Energy Inc.

USA

**Siemens

Germany

***CD-adapco, A Siemens Business

USA

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Heat Transfer and Unsteady Flow – Unsteady Flow

[38] Unsteady Numerical Study of the Influence of Trailing Boundary Layer Velocity Profile on Wake Vortex Formation in a High Subsonic Turbine Cascade

Authors:

→ Shuai Wang
→ Fengbo Wen
→ Zuoxin Wang
→ Tao Cui
→ Songtao Wang

Affiliation:

Harbin Institute of Technology
China

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[89] Unsteady Flow Mechanisms In The Last Stage Of A Transonic Low Pressure Steam Turbine - Multistage Effects And Tip Leakage Flows

Authors:

→ Ilias Papagiannis*
→ Asad Raheem*
→ Altug M. Basol**
→ Anestis I. Kalfas***
→ Reza S. Abhari*
→ Hisataka Fukushima****
→ Shigeki Senoo****

Affiliation:

*ETH Zurich / LEC
Switzerland

**Ozyegin University
Turkey

***Aristotle University of
Thessaloniki, Department of Mechanical
Engineering
Greece

****Mitsubishi Hitachi Power Systems,
Ltd
Japan

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[121] Numerical Method for an Assessment of Steady and Motion-Excited Flow-fields in a Transonic Cascade Wind Tunnel

Authors:

→ Atsushi Tateishi
→ Toshinori Watanabe
→ Takehiro Himeno
→ Seiji Uzawa

Affiliation:

The University of Tokyo
Japan

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Manufacturing and Materials

[26] Correlation Between Hardness and Strength for Refinement of Lifetime Prediction of Heavy GT Casing Parts

Authors:

- Katerina Psarra
- Diego Ugel
- Andres Baumann

Affiliation:

Ansaldo Energia Switzerland
Switzerland

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[87] ICME Design of High Performance Turbine Alloys

Authors:

- Jiadong Gong
- James Saal
- Ida Berglund
- Jason Sebastian
- Greg Olson

Affiliation:

QuesTek Innovations
USA

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[182] Streamlined Frameworks for Advancing Metal Based Additive Manufacturing Technologies in Gas Turbine Industry

Authors:

- Wentao Fu*
- Christoph Haberland**
- Eva Verena Klapdor**
- David Rule**
- Sebastian Piegert**

Affiliation:

*Siemens Energy Inc.
USA

**Siemens AG
Germany

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Radial Turbomachinery

[9] Estimation of the head loss in the annular chamber of multistage centrifugal pumps featuring a compact design

Authors:

→ Federico Fontana

Affiliation:

University of Padua, Department of Industrial Engineering
Italy

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[15] The effect of volute surface roughness on the performance of automotive turbocharger turbines

Authors:

→ Andreas Lintz

Affiliation:

BorgWarner Turbo Systems
Germany

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[33] Parametric Multi-objective optimisation of a centrifugal compressor for a micro gas turbine operated by concentrated solar power

Authors:

→ Davide Iaria
→ Mahmoud Khader
→ Jafar Alzaili
→ Abdalnaser Sayma

Affiliation:

City University
United Kingdom

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[54] Unsteady Behaviours of a Volute in Turbocharger Turbine under Pulsating Conditions

Authors:

→ Mingyang Yang*
→ Ricardo Martinez-Botas**
→ Srithar Rajoo***
→ Seiichi Ibaraki****
→ Takao Yokoyama****
→ Kangyao Deng*

Affiliation:

*Shanghai Jiao Tong University
China

**Imperial College London
United Kingdom

***UTM Centre for Low Carbon Transport in Cooperation with Imperial College London, Universiti Teknologi
Malaysia

****Mitsubishi Heavy Industries Ltd
Japan

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[65] Feature of Internal Flow Phenomena of Self Recirculation Casing Treatment in a Centrifugal Compressor for Turbochargers

Authors:

→ Tadashi Kanzaka
→ Seiichi Ibaraki
Research & Innovation Center, Mitsubishi Heavy Industries, Ltd.
Japan

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[119] A New Method For Predicting The Performamnce Map Of A Single Stage Of A Centrifugal Compressor

Authors:

→ Bong Gun Shin
→ Kangsoo Im
→ Kilyoung Kim
→ Chansun Lim

Affiliation:

Hanwha Techwin, Korea

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[133] Noise Reduction in Centrifugal Compressors by Using Quarter Wavelength Resonator

Authors:

→ Changwoo Lim*
→ Chansun Lim*
→ Yong-Joe Kim**

Affiliation:

*Hanwha Techwin, Korea

**Texas A&M University, USA

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[136] Compressor surge for fully and semi fluctuating flows in automotive turbochargers

Authors:

→ Calogero Avola
→ Colin Copeland
→ Tomasz Duda
→ Richard Burke

Affiliation:

University of Bath
United Kingdom

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Radial Turbomachinery

[138] from Heat Transfer Assessment of turbulence model predictions for a centrifugal compressor simulation

Authors:

- Lee Gibson
- Lee Galloway
- Sung In Kim
- Stephen Spence

Affiliation:

Queen's University Belfast
United Kingdom

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[188] Unsteady Evolution of Secondary Flows in a Mixed Turbine

Authors:

- Bijie Yang
- Peter Newton
- Ricardo Martinez-Botas

Affiliation:

Imperial College London
United Kingdom

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Steam Turbines

[5] Influence of the Operating Conditions on the Dynamic Fluid Forces in Steam Turbine Inlet Valves

Authors:

- Clemens Bernhard Domnick*
- Friedrich Karl Benra*
- Dieter Brillert*
- Christian Musch**

Affiliation:

*University of Duisburg Essen
Germany

**Siemens Ag Steam Turbines
Germany

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[46] CFD Based Approach to Predict the Windage Heating Effect in Steam Turbine Labyrinth Seals

Authors:

- Simon Hecker
- Andreas Penkner
- Christian Musch
- Stefan Glos

Affiliation:

Siemens AG, Germany

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[90] Component fatigue test facility for full-scale LP steam turbine end stage blades

- Shilun Sheng
- Johan Flegler
- Balazs Janos Becs
- Michael Dankert

Siemens AG, Power and Gas Division
Germany

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[113] Development Of A Highly Efficient Density-Based Solver For Condensing Steam Flows In Turbomachines

Authors:

- Pascal Post
- Francesca di Mare

Affiliation:

Department of Energy and Power Plant Technology, Technische Universität Darmstadt, Germany

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Structures

[22] A Three-dimensional Fluid-Structure-Thermal Simulation of Bump-type Foil Thrust Bearings

Authors:

→ Kan Qin
→ Peter Jacobs
→ Ingo Jahn
→ Joshua Keep

Affiliation:

The University of Queensland, Australia

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[28] Design method of the instrumentation and other small through-holes in turbomachinery structures

Authors:

→ Meisam Sistaninia
→ Nicole Souchon
→ Nishant Bhatnagar
→ Pawel Chmura

Affiliation:

Ansaldo Energia Switzerland Ltd
Switzerland

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[69] On the choice of contact parameters for the forced response calculation of a bladed disk with underplatform dampers

Authors:

→ Chiara Gastaldi
→ Emanuele Grossi
→ Teresa Maria Berruti

Affiliation:

Politecnico di Torino
Italy

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[85] Bull Gear Runout as a Source of Subsynchronous, Lateral, Vibration in Integrally Geared Compressor Pinions

Authors:

→ Andrew Crandall → Dara Childs

Affiliation:

Turbomachinery Laboratory, USA

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[96] Estimation Accuracy vs. Engineering Significance of Contact Parameters for Solid Dampers

Authors:

→ Chiara Gastaldi
→ Muzio Gola

Affiliation:

Politecnico di Torino, Italy

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[122] Optimal complex modal-space control of rotor vibrations using active magnetic bearings

Authors:

→ Hanwook Jeon
→ Woo-Young Choi
→ Tae-Wook Lee
→ Chan-Sun Lim

Affiliation:

Hanwha Techwin
Korea

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[175] Experimentally Determine The Impact Of Jacking-Oil Pockets On The Rotor-dynamic Characteristics Of A Four-Pad, Lbp, Tilting-Pad Journal Bearing

Authors:

→ Matthew Kluitenberg
→ Dara Childs

Affiliation:

Turbomachinery Laboratory, Texas A&M University
USA

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[183] Evaluation Of Forced Response Methods On An Embedded Compressor Rotor Blade

Authors:

→ Robert Kielb → Jing Li

Affiliation:

Duke University
USA

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