Prof. Dr. Ing. Giovanna BARIGOZZI

CURRICULUM VITAE

Full Professor
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Education & Academic Carrier

Giovanna Barigozzi graduated in Mechanical Engineering with honors at Genova University in 1992. In 1994 she got the Von Karman Institute Diploma Course with honors in the Turbomachinery field. In 1996 she got the PhD in Fluid Machinery at Genova University. During the PhD she spent a 2 months research period at the von Karman Institute for Fluid Dynamics (Belgium) and a 3 months research period at O.N.E.R.A. - Institut de Mécanique des Fluides de Lille (France) working on the development of optical measurement techniques. In 1996 she got a 1-year long fellowship from Genova University to complete the PhD research activity while in the following year she obtained a post-doc position. She became researcher of Energetic Systems at the Faculty of Engineering of Bergamo University in 1998. In November 2002 she become Associate Professor of Energetic Systems at the Department of Engineering and Applied Science of Bergamo University. she obtained the National Scientific Habilitation, i.e. a positive evaluation for promotion to the rank of full professor. Since March 2017 she is Full Professor of Fluid machines and Energy systems at the Department of Engineering and Applied Sciences of Bergamo University.

Teaching activity

Giovanna Barigozzi is in charge of teaching Fluid Machinery (BS Mechanical Engineering), Energy and sustainability (MS Management Engineering), Experimental techniques for fluid machinery and Aeroengines and propulsion (MS Mechanical Engineering). She is also in charge of the course of Measurement Techniques at the PhD in Engineering and Applied Science at Bergamo University.

Main Research Areas

Her research activity is focused on the following areas:
- experimental analysis of fluid machinery fluid dynamics and of their components, with particular attention to the development of advanced measurement techniques;
- Flat plate film cooling;
- Aero-thermal analysis of film cooling of gas turbine vane/blade cascade and platform;
- Power plant modelling:

- to improve combined cycle performance through the application of peaking technologies;
- to study CSP plants.
- to study waste to energy plant;
- to optimize the operation of wet&dry condensing systems;
- Energy saving in energy intensive processes
- Experimental analysis of self-vented automotive brake discs.

She has published over 120 papers in international Journals (55) and in Proceedings of international (50) and national (19) Conferences. 111 of these papers are indexed in Scopus: since 1994 these papers collected 1335 citations giving an h-index of 22.

Research contracts with organizations and Industries

Giovanna Barigozzi has been involved in the activities related to several research projects, both funded by the Italian University and Research Ministry (COFIN98, PRIN2003) and national and international industries (for example Ansaldo Energia, Alstom, ABB, BREMBO, ENEL, SIAD, Tenaris DALMINE, SAME Deutz-Fahr, A2A, Italcementi, Pneumax). She was local coordinator of the Italian national PRIN Project 2007 "*Trailing edge cooling concepts of high temperature gas turbine blades*" and of the PRIN2010/11 Project "*INSIDE: aerothermal INvestigation of cooled Stage turbIne: Design optimization and Experimental analysis*".

Organizational tasks / institutional roles / activities of refereeing

Head of the Department of Engineering and Applied Sciences of Bergamo University and member of the Academic Senate since October 2018. She also coordinates the Energy Systems and Turbomachinery Laboratory (EST Lab) at Bergamo University.
Member of the Board of Examiners in several national and international PhD.
Plays continuously review activities for the ASME and the ETC, as well as for international journals such as the Journal of Turbomachinery, Experimental Thermal and Fluid Science, International Journal of Thermal Sciences, Proceedings of the Institution of Mechanical Engineers, Part A, Journal of Power and Energy, Energy, Journal of Heat and Fluid Flow, Journal of Heat and Mass Transfer.
Review Organizer of the European Conference of Turbomachinery and of ASME Turbo Expo. Session Chair in several International Congresses (ISAIF, ETC, IGTI).
Member of the K-14 - Heat Transfer Committee of ASME since 2011.
Member of Euroturbo – European Turbomachinery Society since 2016.
Member of the Editorial Board of the International Journal of Turbomachinery Propulsion and Power (IJTPP) since 2016.
Associate editor of the Journal of Turbomachinery since August 2019.

Honours and Awards

She received the ASME IGTI Heat Transfer 2014 Best Paper Award for the paper entitled "Application of Unsteady CFD Methods to Trailing Edge Cutback Film Cooling" (*J. Turbomach*. 136 (2014) 121006-1:11), together with her co-author Prof. Silvia Ravelli.