S2 – Fluid-structure interactions in turbomachines

Organizers: Koichi Yonezawa, Takeshi Sano, Kazuyoshi Miyagawa

The field of **Fluid Structure Interactions** is very important to get high reliability rotating machines. We are pleased this high technology and important topics with all participants. This sessions' topics includes: fluid exciting force, flow instability, fluid-structure interaction, high and low cycle fatigue, vibration and noise concerning problems and countermeasures, computational and experimental approaches and so on. We will be pleased to discuss about your research during the symposium.

Non-exhaustive list of suggested topics

- Flow Induced Vibration
- Fluid Exciting Force
- Surge
- Rotating Stall
- Rotor-Stator Interaction
- Flutter
- Self-Excited Vibration
- Forced Vibrations
- Potential Interactions
- Wake Interactions

Organizers

Koichi Yonezawa is working as a Research Scientist at Central Research Institute of Electric Power Industry (CRIEPI), Japan. He received B.S., M.S. and Ph.D from Osaka University. His main research topics are cavitation instabilities and sand erosion in hydro turbines, aerodynamics of rotorcrafts, and thermo-fluid dynamics in steam and gas turbines.

Takeshi Sano is working as a fluid dynamics researcher in Mitsubishi Heavy Industries, Ltd. He studies pump instability and got his M.S. from Osaka university. Currently, he is taking care of many research fields, such as cavitation, multiphase flow, and fluid structure interaction, as a research manager.

Kazuyoshi Miyagawa is working as a professor at the Department of Applied Mechanics and Aerospace Engineering of WASEDA University, Tokyo, Japan. He received his B.S. and M.S. degrees from WASEDA University, and Dr. Eng. from Osaka University, Japan. He is interested in research and development of turbomachinery such as hydro turbines, pumps, compressors based on an understanding of internal flow and unsteady flow phenomena using CFD and experimental results.

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