

**34th Workshop Turbomachinery,
Gdańsk, IMP PAN, ul. Fiszerka 14, 80-231 Gdańsk**

General Timetable

Wednesday, 14.09.2022	
13:00 – 14:00	lunch at 3 SMAKI
14:00 – 16:00	session 1
16:00 – 16:30	coffee break
16:30 – 17:30	session 2a
17:30 – 18:30	session 2b
18:30 – 20:30	dinner at 3 SMAKI
Thursday, 15.09.2022	
10:00 – 14:30	excursion to GE in Elbląg
14:30 – 16:00	lunch at 3 SMAKI
16:00 – 17:00	session 3a
17:00 – 18:00	session 3b
18:30 – 21:00	dinner in Gdańsk
Friday, 16.09.2022	
09:30 – 10:30	session 4a
10:30 – 11:30	session 4b
11:30 – 12:00	coffee break
12:00 – 13:30	visit to laboratories of IMP PAN
13:30 – 14:30	lunch at 3 SMAKI

Workshop Sessions Programme

Session 1, Wednesday, 14.09.2022, Session Chair – Prof. Marcin Lackowski, Director of IMP PAN	
14:00 – 14:30	Krzysztof Borkowski – ENERGA SA (ORLEN GROUP) TITLE TO BE ANNOUNCED LATER (INVITED LECTURE)
14:30 – 15:00	Łukasz Antczak, Arkadiusz Musiał, Łukasz Jędrzejewski, Dawid Zaniewski – Marani sp. z o.o. Zabrze INDUSTRIAL ORC SYSTEMS (INVITED LECTURE)
15:00 – 15:30	Piotr Lampart, Piotr Klonowicz, Łukasz Witanowski, Michał Gliński, Tomasz Suchocki, Piotr Klimaszewski - IMP PAN Gdansk OVERVIEW OF RESEARCH ACTIVITIES AT TURBINE DEPARTMENT
15:30 – 16:00	Damian Vogt – Univ. Stuttgart, TITLE TO BE ANNOUNCED LATER
Session 2a, Wednesday, 14.09.2022, Session Chair – Prof. Damian Vogt	
16:30 – 16:50	Stefan Schippling - Univ. Stuttgart, TITLE TO BE ANNOUNCED LATER
16:50 – 17:10	Romuald Rządkowski, Arkadiusz Koprowski, Leszek Kubitz – IMP PAN Gdansk, Designing of 1MW Steam Turbine
17:10 – 17:30	Łukasz Witanowski, Piotr Klonowicz, Piotr Lampart, Piotr Klimaszewski, Tomasz Suchocki, Łukasz Jędrzejewski, Dawid Zaniewski, Paweł Ziótkowski - IMP PAN Gdansk / Marani sp. z o.o. / TU Gdansk, IMPACT OF ROTOR GEOMETRY OPTIMIZATION ON THE OFF-DESIGN ORC TURBINE PERFORMANCE
Session 2b, Wednesday, 14.09.2022, Session Chair – Prof. Andreas Jaeger	
17:30 – 17:50	Terezie Kreuzova, Jiri Polansky - TU Prague, Rotating engine liquid coolant system optimisation
17:50 – 18:10	Oliver Paulick, Gunter Eschmann, Andreas Jäger, Uwe Gampe – TU Dresden, TEST RIG SETUP FOR THE EXPERIMENTAL INVESTIGATION OF HEAT TRANSFER COEFFICIENTS IN ANNULAR T-SHAPED CAVITIES IN INDUSTRIAL STEAM TURBINES
18:10 – 18:30	Markus Schönheit, Marcus Thiele, Anastasia Thomas, Edward Ginszbursky – TU Dresden / Fraunhofer IWS Dresden / LG Tech Link Global, USA (AZ), EXPERIMENTAL AND NUMERICAL INVESTIGATION OF A NOVEL METHOD FOR GRADIENT TEMPERATURE MEASUREMENT

Session 3a, Thursday, 15.09.2022, Session Chair – Prof. Sławomir Dykas	
16:30 – 16:50	Krzysztof Rusin - TU Gliwice, Comparison of OpenFoam and Ansys Fluent performances on elementary numerical cases
16:50 – 17:10	Jiri Polansky, Terezie Kreuzova - TU Prague, Axial fan model improvement for OpenFOAM simulation
17:10 – 17:30	Piotr Klonowicz – IMP PAN Gdansk, ZeoStore – a Carnot Battery energy storage system using zeotropic mixtures with high temperature glide
Session 3b, Thursday, 15.09.2022, Session Chair – Prof. Jiri Polansky	
17:30 – 17:50	Sima Shabani, Mirosław Majkut, Sławomir Dykas, Piotr Wiśniewski, Krystian Smołka, Guojie Zhang, Xiaoshu Cai - TU Gliwice / Univ. Shanghai / Univ. Zhengzhou, Analysis of wet steam transonic flows in a Laval nozzle
17:50 – 18:10	Emad Hasani Malekshah, Włodzimierz Wróblewski - TU Gliwice, Merging theory-based cavitation model in prediction of three-phase cavitating flow
18:10 – 18:30	Anna Milewska, Jerzy Głuch – TU Gdansk, A neural method for spatial flow field determination in transonic and supersonic steam turbine blade channels
Session 4a, Friday, 16.09.2022, Session Chair – Prof. Grzegorz Nowak	
09:30 – 09:50	Sebastian Rath, Uwe Gampe, Andreas Jäger – TU Dresden, DESIGN OVERVIEW AND CAPABILITIES OF THE SUCCO-LAB SUPERCRITICAL CARBON DIOXIDE (SCO₂) TEST RIG
09:50 – 10:10	<u>Thiago Gotelip</u> , Andreas Jäger, Uwe Gampe, Stefan Glos - TU DRESDEN / SIEMENS ENERGY AG, MÜLHEIM, OPTIMIZATION STRATEGIES OF DIFFERENT SCO₂ ARCHITECTURES FOR GAS TURBINE BOTTOMING CYCLE APPLICATIONS
10:10 – 10:30	Maria Laura Canteros, Jiri Polansky - TU Prague, Comparison of performance of a heat pump cycle with a work recovery device operating with R1234yf and R744
Session 4b, Friday, 16.09.2022, Session Chair – Prof. Piotr Lampart	
10:30 – 10:50	<u>Tomasz Kowalczyk</u> , Tomasz Ochrymiuk, Janusz Badur – IMP PAN Gdansk, Selected issues of gas-steam section design for experimental wet oxy-combustion chamber
10:50 – 11:10	Ryszard Buchalik and Grzegorz Nowak – TU Gliwice, Application of vibrational analysis to evaluate material properties and damages
11:10 – 11:30	Philipp Doll - Univ. Stuttgart, TITLE TO BE ANNOUNCED LATER

