ETN Global invites you to its quarterly webinar series

R&D Activities on sCO₂ in Europe: *Components challenge – Expanders*

Registrations





Agenda:

- Which boundary conditions for CO₂ turbines? (Alberto Traverso)
- Expander stage of an sCO₂
 Compander for 2 MW output power (*Markus Sauerborn*)
- Benefits and design challenges of axial sCO₂ turbines (*Stefan Glos*)
- Baker Hughes Design Experience with unfired Expanders (Andrea Paggini)



Speakers:

Alberto Traverso (University of Genoa)

> Markus Sauerborn (Atlas Copco)

Stefan Glos (Siemens Energy)

> Andrea Paggini (Baker Hughes)

• Q&A





Alberto Traverso

University of Genoa

Alberto Traverso is Full Professor of Energy and Environmental Systems for Mechanical Engineering at the University of Genoa, Italy.

He is also adjunct Professor at West Virginia University (USA) since 2010, Research scholar at National Energy Technology Laboratory – USA since 2009.

He started the academic career as Assistant Professor in 2005 at the Genoa Rolls-Royce University Technology Centre.

He published more than 200 scientific papers, most of them at International conferences and Journals, 11 invited lecturers, 17 patents.

He is founder of two startup companies, Blue Energy Revolution in 2015 and SIT Technologies in 2018. Markus Sauerborn currently works for Atlas Copco Energas GmbH in Cologne (part of Atlas Copco Gas and Process) as Senior Engineer Aerodynamics and Process Development.

He started his career in Atlas Copco in 1997, working as an Aerodynamics Engineer, before holding a position as Project Manager between 2003 and 2007.

Markus has a degree in Mechanical Engineering from Technical University Darmstadt (Germany), where he focused specifically on Turbomachinery and Aerodynamics.

He has also served as session chairman for the International Rotating Equipment Conferences during 2008 to 2019, an event for which he has also contributed process-related papers in the past. This year, he presented a paper on design and testing of an sCO_2 Compander at the 5th sCO_2 Conference for Energy Systems in Prague.



Markus Sauerborn Atlas Copco





Stefan Glos

Siemens Energy

Stefan Glos studied Mechanical Engineering at Ruhr-University Bochum and obtained his doctorate (Dr. Ing.) in the field of experimental thermodynamics in 2004.

He held various positions in customer order engineering and R&D of Siemens Energy in Mülheim and is experienced in thermal design of turbines for different working media (e.g. steam, CO₂).

Since 2015 he is responsible for the development of innovative product and system concepts within the Steam Turbines business area of Siemens Energy.

Andrea Paggini works currently as the Principal Engineer for Steam Turbines and Axial Expanders.

He has more than 23 years of experience at Baker Hughes Nuovo Pignone, with different roles, either technical or managerial, within the Steam Turbines Engineering Team.

In the last years, he acts as a technical coordinator for various research and development programs dedicated to Steam Turbines and to Axial Expanders for new emerging application, sCO_2 and Energy Storage (LAES/CAES) primarily.



Andrea Paggini Baker Hughes