

Status:  
3rd March 2025

## Technical Program - 11th EVI-GTI Conference

4 days now ! 25 to 28 March

### Tuesday, 25 March 2025

07:30 - 08:15	Registration
	<b>ETC Invite Lecture #2</b>
	<b>Titel</b>
8:30 - 9:30	Presenter <i>Company</i>
9:30 - 10:00	Coffee break and Registration Elevator Pitches
	<b>Conference Chair Welcome</b>
	<b>Ralf Obertacke, President EVI-GTI</b>
10:00 - 10:15	<b>Welcome to Hannover</b>
	<b>Elevator Pitches: 3 x 5 Minutes Company and Product Presentations</b>
10:15 - 10:30	<b>Chair: Ralf Obertacke</b>
	<b>Session D - 04 Chair: Hanspeter Zinn</b>
10:30 - 12:30	<b>Aerodynamic and Vibration Measurements</b>
	<b>4.1</b>
30 min. 10:30-11:00	<b>E25-01 Turbocharged Innovation: Exploring Advanced Aerodynamic Measurement in Turbomachinery</b> Katharina Kreitz <i>Vectoflow GmbH, Germany</i>
	<b>4.2</b>
30 min 11:00-11:30	<b>E25-39 We make a Turbine speak and this physics based with hybrid modelling</b> Jagannath Marathi, <i>Bosch Digital Twin Industries, Germany</i>
	<b>4.3</b>
30 min. 11:30-12:00	<b>E25-28 Source localisation measurements with microphone arrays on turbofan and open rotor engines</b> Henri Siller <i>German Aerospace Center (DLR), Institute of Propulsion Technology, Germany</i>
	<b>4.4</b>
30 min. 12:00-12:30	<b>E25-20 Visualization system for the contact behavior in turbine shrouds during operation</b> Alexander Friedl <i>MTU Aero Engines AG, Germany</i>
12:30 -14:00	<b>Lunch</b>
	<b>Session D - 05 Chair: Björn Karlsson</b>
14:00 - 16:00	<b>Temperature and combustion measurement</b>
	<b>5.1</b>
30 min. 14:00-14:30	<b>E25-34 Total Temperature Measurement with High Density FBG Sensor Array</b> Andrea Stadler, Andreas Zeisberger, Johannes Roths <i>Photonics Laboratory, Munich University of Applied Sciences, Germany</i> <i>MTU Aero Engines AG, Germany</i>
	<b>5.2</b>
30 min. 14:30-15:00	<b>E25-16 IR Camera Measurements During Engine Delivery Tests of an SGT-750 Gas Turbine Engine</b> Andreas Lantz <i>Siemens Energy AB, Sweden</i>
	<b>5.3</b>
30 min. 15:00-15:30	<b>E25-19 UCTS: Technical Update 2025</b> Anastasia Thomas <i>LGTechLink, US</i>
	<b>5.4</b>
30 min. 15:30-16:00	<b>E25-10 Data Acquisition and Process Control in Optically Accessible Combustion Test Rig for Next-Generation Fuels</b> Otto Gansner <i>PI Electronics AG, Switzerland</i>
16:00 – 16:30	Coffee break
	<b>Session D - 06 Ralf Obertacke</b>
16:30 - 18:00	<b>Novel Rigs and Methods I</b>
	<b>6.1</b>
30 min. 16:30-17:00	<b>E25-32 Virtual Sensing for Rocket Engine Turbines</b> Sarah Kramer, Louis Souverein, Stefan Schlechtriem <i>ArianeGroup GmbH, Munich, Germany</i> <i>Institute of Space Systems, University of Stuttgart, Germany</i> <i>Institute of Space Propulsion, German Aerospace Center (DLR), Lampoldshausen, Germany</i>
	<b>6.2</b>
30 min 17:00-17:30	<b>E25-29 Aerothermodynamic turbine tests at DLR</b> Frank Kocian <i>German Aerospace Center (DLR), Institute of Propulsion Technology, Germany</i>
	<b>6.3</b>
30 min. 17:30-18:00	<b>E25-30 Experimental Validation of Hydrogen Burners at realistic Aero Engine Conditions</b> Bertram Janus <i>DLR, Germany</i>

### Wednesday, 26 March 2025

	<b>ETC Invite Lecture #3</b>
	<b>Titel</b>
8:30 - 9:30	Presenter <i>Company</i>
9:30 - 10:00	Coffee break
	<b>Session D - 07 Chair: Björn Karlsson</b>
10:00 - 12:30	<b>Fast Dynamic Pressure Measurement</b>
	<b>7.1</b>
30 min. 10:00-10:30	<b>E25-11 Applications and development update - optical pressure and temperature instrumentation</b> Ian Macafee <i>WIKA Optical Sensing Ltd, United Kingdom</i>

	<b>7.2</b> <b>E25-09 Packaging and Integration Concept for Surface Pressure Measurement on Airfoils</b> Jürgen Gründmayer <i>MTU Aero Engines AG, Germany</i>
30 min. 10:30-11:00	
	<b>7.3</b> <b>E25-21 AI-based Condition Monitoring of Gas Turbine Combustors Using Fast Dynamic Pressure Sensor Data</b> Daniel Hümmer, Jakob Hermann <i>IFTA Ingenieurbüro für Thermoakustik GmbH, Germany</i>
30 min. 11:00-11:30	
	<b>7.4</b> <b>E25-15 Verification of dynamic pressure sensors in hot environment</b> Jonas Deurell <i>Siemens Energy AB, Sweden</i>
30 min. 11:30-12:00	
	<b>7.5</b> <b>E25-17 Fast Response Aerodynamic Probe: Design, Sensor Integration &amp; First Time Application (FTA)</b> Jan Mihalyovics <i>Siemens Energy Global GmH &amp; Co, Germany</i>
30 min. 12:00-12:30	
12:30 - 14:00	<b>Lunch</b>
	<b>Session D - 08 Chair: Andreas Zeisberger</b>
14:00 – 16:00	<b>Experimental and measuring techniques</b>
	<b>8.1</b> <b>ETC2025-270 Non-Reactive Experimental Analysis of an Exhaust Section downstream of a CVC</b> Panagiotis Gallis, Daniela Anna Misul, Bastien Boust, Marc Bellenoue, Simone Salvadori <i>Department of Energy, Politecnico di Torino, Italy; PPRIME Institute, CNRS-ENSMA-University of Poitiers, France</i>
30 min. 14:00-14:30	
	<b>8.2</b> <b>ETC2025-245 Development and Commissioning of the M250-C40B Engine Test Rig</b> Sergio Grasa, Andrew Eifert, Guillermo Paniagua, Tim Unton, Michael Butzen <i>Purdue University; Rolls-Royce North America</i>
30 min. 14:30-15:00	
	<b>8.3</b> <b>ETC2025-189 Application of atomic layer thermopile (ALTP) sensors in organic vapor flows</b> Leander Hake, Stefan aus der Wiesche, Simon Kaneider, Tim Rödiger <i>Muenster University of Applied Sciences, Germany; Landshut University of Applied Sciences, Germany</i>
30 min. 15:00-15:30	
	<b>8.4</b> <b>ETC2025-160 Test rig design for the aeroacoustic investigation of a 1½-stage low-pressure turbine</b> Johanna Schuler, Niklas Maroldt, Joerg R. Seume <i>Leibniz University Hannover, Institute of Turbomachinery and Fluid Dynamics, Germany</i>
30 min. 15:30-16:00	
16:00 – 16:30	Coffee break
	<b>Session D - 09 Chair: Ralf Obertacke</b>
16:30 – 18:00	<b>Novel Rigs and Methods II</b>
	<b>9.1</b> <b>E25-07 Gas leak detection in oil &amp; gas: improving site reliability and safety using ultrasonic imaging</b> Walter Umbricht <i>Distran-Zürich, Switzerland</i>
30 min. 16:30-17:00	
	<b>9.2</b> <b>E25-25 The INFRa Rig: Enabling extensive investigations of fan intake interactions</b> Jonas Grubert, Jan Göing <i>Institute of Jet propulsion and Turbomachinery, TU Braunschweig, Germany</i>
30 min 17:00-17:30	
	<b>9.3</b> <b>E25-26 IRON LIQORNE: Issues and Challenges in Monitoring Cryogenic Hydrogen Aviation Fuel Systems</b> Fynn Thilker <i>FH   JOANNEUM Gesellschaft mbH, Austria</i>
30 min. 17:30-18:00	
	Gala Dinner

### Thursday, 27 March 2025

	<b>ETC Invite Lecture #4</b>
	<b>Titel</b>
8:30 - 9:30	Presenter <i>Company</i>
9:30 - 10:00	Coffee break
	<b>Session D - 10 Chair: Hanspeter Zinn</b>
10:00 - 12:30	<b>Telemetry and dynamic pressure measurement</b>
	<b>10.1</b> <b>E25-36 A new design approach for a fan telemetry system in flight testing</b> Stefan Gier <i>Rolls-Royce Deutschland, Germany</i>
30 min. 10:00-10:30	
	<b>10.2</b> <b>E25-14 Operational experiences with touchless torsional vibration measurements including real SSR-events</b> Ingo Balkowski <i>Siemens Energy Global GmH &amp; Co, Germany</i>
30 min. 10:30-11:00	
	<b>10.3</b> <b>E25-04 Compressor Blade Vibration Measurement Strategy Employing Strain Gauge (Telemetry) and Tip Timing for Advanced Small Frame Size Turbochargers with Vaned Diffuser</b> Takashi Ando <i>Accelleron Switzerland Ltd. Switzerland</i>
30 min. 11:00-11:30	
	<b>10.4</b> <b>E25-22 High Bandwidth Telemetry System for Rotor Temperature Measurement Reducing Parasitic Noise</b> Jan Hausknecht <i>Datatel</i>
30 min. 11:30-12:00	
	<b>10.5</b> <b>E25-12 Intelligent monitoring of a Recursive Sequential Combustor applied to hydrogen</b> Fabrice Giuliani <i>Combustion Bay One e.U.</i> , Alexander Schricker, <i>Piezocryst GmbH</i> , Vojislav Petrovic, Wolfgang Waldhauser, <i>JOANNEUM RESEARCH GmbH, Austria</i>
30 min. 12:00-12:30	
12:30	<b>Lunch</b>
	<b>Session D - 11 Chair: Ralf Obertacke</b>
14:00 - 16:00	<b>Operational experience of turbomachinery and integrated system</b>

30 min. 14:00-14:30	<p><b>11.1</b>  <b>ETC2025-234 Semi-supervised deep learning framework for predictive maintenance in offshore wind turbines</b>  Valerio Francesco Barnabei, Tullio Carlo Maria Ancora, Giovanni Delibra, Alessandro Corsini, Franco Rispoli  <i>Sapienza University of Rome, Italy</i></p>
30 min. 14:30-15:00	<p><b>11.2</b>  <b>ETC2025-141 Detection of faulty machine behavior using acoustic measurements: A predictive maintenance approach demonstrated by means of IGV misalignment</b>  Nick Linnemann, Dieter Brillert <i>University of Duisburg-Essen, Germany</i></p>
30 min. 15:00-15:30	<p><b>11.3</b>  <b>ETC2025-237 Performance and Emission Analysis of Aircraft Engines under Realistic Conditions</b>  Daniel Lieder, Maximilian Bien, Erik Seume <i>Technische Universität Braunschweig, Germany</i></p>
30 min. 15:30-16:00	<p><b>11.4</b>  <b>ETC2025-138 Analysis of Operation and Measurement Uncertainty of a Rebuilt 1.5 – Stage Test Turbine on the Investigation of Hot Gas Ingestion</b>  Lukas Pehle, Sophia Jörg, Stephan Stotz, <i>Institute of Power Plant Technology, Steam and Gas Turbines, RWTH Aachen University, Germany;</i>  <i>MTU Aero Engines AG</i></p>
16:00 – 16:30	Coffee break
16:30 - 18:00	<p><b>Session D - 12 Chair: Björn Karlsson</b>  <b>Novel Rigs and Methods III</b></p>
30 min. 16:30-17:00	<p><b>12.1</b>  <b>E25-08 Test rig for flow validation of Industrial Gas Turbine combustors and discharge nozzles</b>  Sam Mason, Matthew Biggs, Marios Christodoulou <i>SCITEK Consultants Ltd. United Kingdom</i></p>
30 min 17:00-17:30	<p><b>12.2</b>  <b>E25-05 Oil debris and condition sensors</b>  Joe Kirkup, Kam Chana <i>University of Oxford United Kingdom</i></p>
30 min. 17:30-18:00	<p><b>12.3</b>  <b>E25-31 Compressortesting at DLR - an overview about testbeds and capabilities, DHL</b>  Christian Tiedemann <i>DLR, Germany</i></p>
18:00 - 19:00	<b>EVI-GTI General Assembly</b>

**Friday, 28 March 2025**

8:30 - 9:30	<p><b>ETC Invite Lecture #5</b>  <b>Titel</b>  Presenter <i>Company</i></p>
9:30 - 10:00	Coffee break
10:00 - 12:30	<p><b>Session D - 13 Chair: Björn Karlsson</b>  <b>Novel Rigs and Methods IV</b></p>
30 min. 10:00-10:30	<p><b>13.1</b>  <b>E25-24 Linear High Temperature Cascade for Turbine Heat Transfer Research Above 1000 K - Insights and Outlook</b>  Jan Lemmer, Peter Jeschke <i>Institute of Jet Propulsion and Turbomachinery, RWTH Aachen University</i>  Michael Rabs <i>MAN Energy Solutions SE, Oberhausen, Germany</i></p>
30 min. 10:30-11:00	<p><b>13.2</b>  <b>E25-35 Design and Development of Continuum Robots for Aero-Engine Inspection</b>  Tim-David Job, Martin Bensch, Thomas Seel and Moritz Schappler <i>Leibniz University Hannover, Germany</i></p>
30 min. 11:00-11:30	<p><b>13.3</b>  <b>E25-37 Rotating vane-row clocking device for the application of extensive instrumentation in gas and steam turbines</b>  Eike Helmsen, Josué-Inocente Camarero Pueyo, Michael Henke <i>Leibniz University Hannover, Germany</i></p>
30 min. 11:30-12:00	<p><b>13.4</b>  <b>E25-33 Extention of the Operational Range of a Compressor Testbed Driveline</b>  Rayk Schoenbeck <i>AneCom AeroTest, Germany</i></p>
30 min. 12:00-12:30	<p><b>13.5</b>  <b>E25-02 Design, Performance Analysis and Validation of a New High Speed Calibration Wind Tunnel for Aerodynamic Probes</b>  Niklas Dohme, Michael Henke, Henning Rätz, Arne Vorreiter, Joerg R. Seume <i>Aerzener Maschinenfabrik GmbH, Institute of Turbomachinery and Fluid Dynamics, Leibniz University Hannover, Volkswagen AG, Germany</i></p>