Wednesday, 7th February

08:30 – 8:40 Welcome and Introduction

08:40 – 9:10 Keynote I

New developments in non-conventional (phase contrast) tomographic image reconstruction
Sijbers, Jan; University of Antwerp, Belgium

09:10 – 10:30: Deep Learning and Visualization Techniques

1. ID 165: Unsupervised Segmentation of Industrial X-ray Computed Tomography Data with Segment Anything Model
   Weinberger, Patrick; University of Applied Sciences Upper Austria, Austria
2. ID 175: AI-Driven Synthetization Pipeline of Realistic 3D-CT Data for Industrial Defect Segmentation
   Tenscher-Philipp, Robin; Hochschule Karlsruhe - University of Applied Sciences, Germany
3. ID 150: SmartCT - Development of AI based methods for automation of RoboCT scan procedures
   Sukowski, Frank; Fraunhofer Development Center X-Ray Technology EZRT, Germany
4. ID 142: Immersive Inspection: Enhancing Material Analysis of X-Ray Computed Tomography Datasets in AR
   Gall, Alexander; University of Applied Sciences Upper Austria, Austria

10:30 – 11:00: BREAK

11:00 – 12:40: Instrumentation and New Methods

1. ID 180: Micro CT Test Pattern for Everyday Productive Use
   Kubec, Adam; XRnanotech GmbH, Switzerland
2. ID 133: Hard X-ray nanoscale Imaging of Carbon Fibre Composites using Near-Field Ptychography
   Margini, Marco; Università degli Studi di Trieste, Italy
3. ID 110: High-speed inline CT enabled by MetalJet sources
   Dreier, Till; Excillum AB, Sweden
4. ID 155: Demonstration of a robust laser driven X ray source for CT
   Barbrel, Benjamin; ALPhANOV, France
5. ID 152: Neutron imaging and its applications in materials science
   Kaestner, Anders; Paul Scherrer Institut, Switzerland

12:40 – 01:40: LUNCH

01:40 – 03:20: Material Characterization

1. ID 117: Investigation of the melt and flow behavior in the hot-end of a 3D printer using X-ray computed tomography
   Chung, Phi-Long; Institut für Kunststofftechnik, Universität Stuttgart, Germany
2. ID 115: Characterizing Changes in Salt Hydrates using Micro X-Ray Computed Tomography for Improved Cyclability in Thermochemical Materials
   Arya, Aastha; University of Twente, Netherlands
3. ID 170: A validation approach of segmentation results for quantitative void content analysis in fibre-reinforced polymers
   Plank, Bernhard; University of Applied Sciences Upper Austria, Austria

4. ID 116: Analysis of the Mixing Quality in Polymer Blends by Computed Tomography
   Kornely, Mike; Institut für Kunststofftechnik, Germany
5. ID 146: Synchrotron tomography for ex-situ characterization of carbon-polymer composite bipolar plates for vanadium redox flow batteries
   Sharma, Priyanka; Max-Planck-Institut für Kohlenforschung, Germany

03:20 – 03:50: BREAK

03:50 – 05:10: Multi Modal Imaging

1. ID 168: Dark-field imaging of the in vitro degradation of biodegradable magnesium screws
   Senck, Sascha; University of Applied Sciences Upper Austria, Austria
2. ID 114: X-ray scattering tensor tomography with different wavefront modulators
   Lautizi, Ginevra; University of Trieste, Elettra Sincrotrone Trieste, Italy
3. ID 158: Towards dark-field fiber orientation tomography via optimizing predominant scattering directions
   Mori, Tomoki; The University of Tokyo, Japan
4. ID 171: Multi-modal imaging and non-destructive evaluation of a carbon fibre overwrapped pressure vessel (COPV)
   James Bennett; USA

05:10 – 06:00: Short Talks

1. ID 118: CT measurement of contact surfaces and micro gaps in mono-material assemblies
   Zanini, Filippo; University of Padova, Italy
2. ID 111: Non-destructive larval infestation detection in pear fruits using deep learning and x-ray CT generated radiographs
   He, Jiaqi; KU Leuven, Belgium
3. ID 157: Comparison of Different Quantum Computing Devices for Optimization of Computed Tomography Data Acquisition
   Fuchs, Theobald Otto Johann; Fraunhofer Society, Germany
4. ID 102: CT Artifact Reduction Employing A Convolutional Neural Network Within the Context of Dimensional Metrology
   Tavakoli Kejani, Mohammad; Amirkabir University of Technology, Iran
5. ID 108: CTPOS: A Simulation Toolkit for Industrial CT Parameters Optimization
   Tavakoli Kejani, Mohammad; Amirkabir University of Technology, Iran
6. ID 164: Design and implementation of an autonomous 3D CT inspection system for extruded profiles
   Schön, Tobias; Fraunhofer Institute for Integrated Circuits IIS, Germany
7. ID 149: Task-specific View Selection for 2D X-ray Inspection of Large Objects with Robotic CT Systems
   Müller, Jonas; FAU, Germany
8. ID 172: Using high-resolution nano-CT methods to detect and analyze counterfeit semiconductor structures
   Balles, Andreas; Fraunhofer IIS, Germany
9. ID 176: High-resolution tiled X-ray cone-beam CT using the ASTRA toolbox
   Paramonov, Pavel; University of Antwerp, Belgium
10. ID 112: Examination of ray casting in Unity 3D as a fast pose prediction tool for industrial CT scans of multi-material specimens
    Baraka, Ahmed; WZL | RWTH Aachen, Germany

11. ID 130: Classical materials testing in the light of CT
    Meinel, Dietmar; BAM, Germany

06:00 – 08:00: Poster Session

1. ID 173: Investigating disentangled GAN latent spaces for the removal of fixture-related backgrounds in reconstructed CT images for industrial quality control applications
   Wolfschläger, Dominik; WZL | RWTH Aachen University, Germany
2. ID 107: From 2D Instance Segmentation with Conditional Detection Transformers to 3D in Post-Processing
   Engster, Johann Christopher; Fraunhofer Research Institution for Individualized and Cell-Based Medical Engineering, Germany
3. ID 125: Porosity tracking throughout laser powder bed fusion manufacturing process
   Leonard, Fabien; The University of Manchester, UK
4. ID 143: Deep Learning-based Flaws Detection Techniques for X-ray Inspection of Aluminum Casting
   Sezer, Aysun; CEA LIST, France
5. ID 121: Evaluation of 3D-printed polymeric triple periodic lattice structure by means of 3D micro-computed tomography and in-situ mechanical testing
   Karlsson, Patrik; Örebro University, Sweden
6. ID 159: Dynamic micro-CT analysis of in-situ freeze drying process
   Coppens, Frederik; TESCAN micro-CT, Belgium
7. ID 119: Exciscope Polaris: lab-based phase-contrast CT for low contrast samples
   Celania, Christopher Ranger; Exciscope, Sweden
8. ID 179: XCT parametric study on the influence of acquisition setup and tweaking of surface determination on the dimensional measurement with helpful metric as visualization tool
   Enniafa, Malik; Cetim, France
9. ID 167: Non-destructive characterization of additive manufacturing components with computed tomography and 3D X-ray microscopy
   Villarraga-Gomez, Herminso; ZEISS, USA
10. ID 161: RadalyX – Robotic X-ray scanner: applications in aerospace and material industry
    Bohacova, Jana; Radalytica a.s., Czech Republic
11. ID 147: Uncalibrated CT Reconstruction for One-Shot Scanning of Arbitrary Trajectories
    Rückert, Darius; Voxray, Germany
12. ID 166: rosct: A distributed, scriptable CT control framework for iterative research-oriented method and application development
    Rauch, Daniel; Fraunhofer IIS, Germany
13. ID 137: Implementing dark-field contrast imaging in computer tomography with simple setup Talbot-Lau-Interferometer
    Gutekunst, Josephine; Microworks GmbH, Germany
14. ID 145: Boosting the versatility of X-ray microscopes by using robotic arm sample holders
    Andreyev, Andriy; Carl Zeiss X-ray Microscopy, USA
15. ID 148: An AI-based 450-kV computed tomography solution for hairpin welding inspection
    Tschechne, Stephan; Carl Zeiss Industrielle Messtechnik GmbH, Germany
16. ID 135: Image Denoisers in Tomography: Enhancing Quality of Bimodal Imaging for Corriosion Studies
    Zhan, Qianru; Paul Scherrer Institut, Switzerland
17. ID 109: An algorithm for automatic setting of imaging conditions in X-ray CT system
    Matsunaga, Norihito; Nikon Corporation, Japan

18. ID 162: Quality improvement of CT volumes by updating differentials of projection values
    Shibuya, Hayata; Tokyo Metropolitan University, Japan
19. ID 134: Synthetic generation and assessment of cracks in steel fibre-reinforced concrete
    Nowacka, Anna; Fraunhofer Gesellschaft, Germany
20. ID 127: Combined application of Computed Tomography and Gear measuring technologies
    Gainov, Ramil; Wenzel Group, Germany
21. ID 182: Home-made cbct system using lens-coupled detector
    Hosseini, Seyed Roohollah; Arman Moj Fanavar co, Iran
22. ID 103: Synthetic and Experimental Hybrid Dataset for Training of Deep Learning-based Models for Semantic Segmentation of CT Data
    Lindgren, Erik; University West, Sweden
23. ID 123: Automated drift compensation procedure for high-resolution XCT imaging based on simultaneous measurement of marker sphere
    Gwerder, Damian; Hochschule Luzern, Switzerland

Thursday, 8th February

08:30 – 9:00 Keynote II

Industrial Computed Tomography at Borealis
Salaberger, Dietmar; Borealis Polyolefine GmbH, Austria

09:00 – 10:20: Multi Spectral Imaging

1. ID 126: Energy-selective X-ray CT imaging with an EIGER2 hybrid photon counting detector in a Diondo d2 XCT system
   Martinez Garcia, Jorge; Lucerne University of Applied Science and Arts, Switzerland
2. ID 136: Measure Quickly and Precisely: The Frequency Split Dual-Energy Computed Tomography (FSDECT)
   Esposito, Fabio; TEC Eurolab, Germany
3. ID 132: Application of dual-target submicron computed tomography for material decomposition of low-Z materials
   Mikuláček, Pavel; Central European Institute of Technology, Czech Republic
4. ID 105: End-to-end deep learning material discrimination using dual-energy linac-CT
   Weiss, Moritz; Diondo, Germany

10:20 – 10:50: BREAK

10:50 – 12:30: Reconstruction, Algorithms and Optimization I

1. ID 106: Big Data Analytics for the Inspection of Battery Materials
   Lang, Thomas; Fraunhofer Institute of Integrated Circuits IIS, Division Development Center X-ray Technology, Germany
2. ID 153: Resolution enhancement by variable zoom trajectory in X-ray computed tomography
   Blažek, Pavel; Baker Hughes Digital Solutions GmbH, Germany
3. ID 124: 4D Computed Tomography for the Analysis of Dynamic Properties of Metallic Additive Manufactured Components
   Kramer, Lina; VisiConsult, Germany
4. ID 177: RoboCT - Large-Field-of-View Laminography by Twin Robotic Computed Tomography
   Holub, Wolfgang; Fraunhofer EZRT - Development Center for X-ray Technology, Germany
5. ID 122: The constrained split Bregman algorithm for enhancing the quality of image reconstruction and analysis in few-view Computed Tomography
   Bahrkazemi, Maryam; Volume Graphics GmbH and KU Leuven, Germany

12:30 – 01:30: LUNCH

01:30 – 03:10: Reconstruction, Algorithms and Optimization II

1. ID 138: Efficient data-processing of dynamic CT scans: sinogram-based event identification
   Goethals, Wannes; Ghent University, Belgium
2. ID 181: Artifact-robust Object Segmentation Using Thresholding Based on Binarized Image Object Analysis (TB2IOA) in X-ray Computed Tomography
   Kieß, Steffen; University of Stuttgart, Germany
3. ID 129: Analyzing image data to detect a CT system's error state and identify the corresponding root cause
   Fleßner, Matthias; Sioux Technologies GmbH, Germany
4. ID 128: Multispectral denoising of CT projections exploiting spectral and angular information
   Peter, Gänz; University Stuttgart, Germany

5. ID 144: Unveiling the Full Picture: Advanced Scanning Procedure for Complete Large Component Scans via Twin Robotic Computed Tomography
   Wittl, Simon; Technische Hochschule Deggendorf, Germany

03:10 – 03:40: BREAK

03:40 – 05:00: Simulation I

1. ID 131: A demonstration of a new energy dispersive X-ray CT simulation tool
   Sloth, Steffen; Technical University of Denmark, Denmark
2. ID 156: Shape Variations and XCT Simulations for Bad Part Detection in Agricultural Products via Physics-informed AI
   Yosifov, Miroslav; University of Applied Sciences Upper Austria, Austria
3. ID 154: A practical tool for 3D mesh registration in X-ray based inspection
   Iuso, Domenico; University of Antwerpen, Belgium

05:30: Conference Dinner

Friday, 9th February

08:30 – 9:00 Keynote III

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09:00 – 10:00: Simulation II

1. ID 169: Adaptable quality control inspection using simulated reference data
   Costin, Marius; CEA LIST, France
2. ID 151: Transferring measured X-ray focal spots to virtual CT systems for more realistic simulations of dimensional measurements
   Reuter, Tamara; Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany
3. ID 139: Development of a computer simulation tool for evaluating the variability of CT-based dimensional measurement results
   Baldo, Crhistian Raffaelo; UFABC, Brazil

10:00 – 10:30: BREAK

10:30 – 12:10: Deep Learning

1. ID 174: Pork shoulder processing using X-ray technology for predicting a segmentation map of the bone structure with an inline inspection system
   Pieters, Michiel; Ku Leuven, Belgium
2. ID 160: LoDoInd: A Benchmark Low-dose Industrial CT Dataset
   Shi, Jiayang; Leiden University, Netherlands
3. ID 104: High energy Computed Tomography of high density alloys using a 6 MeV Linear Accelerator: detectability and use of Artificial Intelligence
   Esposito, Fabio; TEC Eurolab, Italy
4. ID 113: Volumetric Instance Detection for Overlapping Shoes in Computed Tomography
   Leipert, Martin; Deggendorf Institute of Technology, Germany
5. ID 163: Adaptive angle selection for defect detection on CT data
   Wang, Tianyuan; Centrum Wiskunde & Informatica (CWI), Netherlands

12:10 – 12:20: Closing & iCT 2025 Preview