

11:30 *Aleks Thamm* CV  
Analysis of Forming Limits in Sheet Metal Forming Based on Tensile Tests with Unsupervised Deep Learning Methods

11:45 *Timo Klemm* IPA  
Detector analysis on photon counting detectors

12:00 **Lunch Break**

## Friday 14th July

## Questions?

### Responsible people:

Paula Andrea Perez  
Badhan Das  
Eduardo Castaneda  
Florian Goldmann  
Jonas Mueller  
Nastassia Vysotskaya  
Sheethal Bhat

For any question regarding the conference, please contact us at

- [cs5-prs-orga@lists.fau.de](mailto:cs5-prs-orga@lists.fau.de)

# PRL Conference Summer 2023

July 10th – 14th, Jaromice nad  
Rokytnou (Czech Republic)

### Presentations

<https://fau.zoom.us/j/4843409422>

### Pattern Recognition Lab

Prof. Dr.-Ing. Andreas Maier  
Telefon: +49 9131 85 27775  
E-Mail: [andreas.maier@fau.de](mailto:andreas.maier@fau.de)  
Internet: [lme.tf.fau.de](http://lme.tf.fau.de)



## Monday 10th July

16:00 Poster Session 1

16:00 *Martin Leipert* CV  
CT Mask: instance segmentation in industrial CT

16:00 *Luis Carlos Rivera Monroy* LAMBDA  
Advancements in Graph-based Cell Subtype Classification for Multiple Cancer Types

16:00 *Aline Sindel* CV  
A Vessel-Segmentation-Based CycleGAN for Unpaired Multi-modal Retinal Image Synthesis

16:00 *Fuxin Fan* IPA  
Simulation-Driven Training of Vision Transformers Enables Metal Artifact Reduction of Highly Truncated CBCT Scans

16:00 *Mikhail Kulyabin* LAMBDA  
Precise Classification of Electroretinogram Signals using AI

16:00 *Kai Packhäuser* LAMBDA  
Deep Learning-based Anonymization of Chest Radiographs: A Utility-preserving Measure for Patient Privacy

16:00 *Jimmy Retzlaff* LAMBDA  
Integration of transcriptomics data into a multi-scale model of melanoma to identify mechanisms of immunotherapy resistance

16:00 *Sally Zeitler* CV  
Determination of Forming Limits for Sheet Metal based on Plane Strain Tests

16:00 *Linda Vorberg* LAMBDA  
Detection of Pulmonary Embolisms in NCCT Data using nnDetection

16:00 *Hiuching Hung* SAGI  
Speaking Clearly, Understanding better: Predicting the L2 Narrative comprehension of Chinese Bilingual Kindergarten Children Based on Speech Intelligibility Using a Machine Learning Approach

## Tuesday 11th July

9:00 Talk Session 1

9:00 *Stefan Ploner* OPH  
A Spatiotemporal Illumination Model for 3D Image Fusion in Optical Coherence Tomography (ISBI '23)

9:15 *Junaïd rasool Rajput* MRI  
Physics-Informed Conditional Autoencoder Approach for Robust Metabolic CEST MRI at 7T

9:30 *Paula Perez* SAGI  
So you think you can Rhythm?

10:00 Public Viewing

10:00 *David Li* Karlsruher Institut für Technologie  
Optimizing Energy Efficiency of Large-Scale Deep Learning Models using FourCastNet: A Global Weather Forecast Model

12:00 **Lunch Break**

14:45 Talk Session 3

14:45 *Jochen Zöllner* Planet AI  
Multimodal Document Classification with LayoutLM from Scratch

15:00 *Mathias Zinnen* CV  
Smell Gesture Recognition using Pose Estimation and Contextual Image Features

15:15 *Yipeng Sun* IPA  
Genetic Neural Architecture Search for Edge TPU

15:30 *Mareike Thies* IPA  
Optimizing CT Scan Geometries With and Without Gradients

16:00 Guest Talk 1

16:00 *Dr. André Aichert* Siemens Healthineers  
Artificial Intelligence for Healthcare

## Wednesday 12th July

9:00 Poster Session 3

9:00 *Jingna Qiu* AIMI  
Diverse Region Selection for Active Learning in Whole Slide Image Semantic Segmentation

9:00 *Frauke Wilm* CV  
MIDOG 2.0: Lessons learned from our 2nd challenge edition

9:00 *Bin Long* IPA  
Deep Learning Models of Ultrasonography Significantly Improved the Differential Diagnosis Performance for Superficial Soft-Tissue Masses: A Retrospective Multicenter Study

9:00 *Chang Liu* LAMBDA  
Anatomy-based data augmentation for segmentation dataset

9:00 *Jonas Müller* IPA  
Object-specific trajectory planning for robot-guided computed tomography

9:00 *Mathias Öttl* LAMBDA  
HER2 tissue segmentation for scoring and more

9:00 *Zijin Yang* MRI  
Liver lesion segmentations and detection

9:00 *Paul Stöwer* CCN  
Building Multi Modal Cognitive Maps with the Successor Representation

9:00 *Haijun Yu* IPA  
Source translation scanning mode for interior tomography

9:00 *Sebastian Wind* PRL  
Generating academic reviews using large language models

11:00 Guest Talk 2

11:00 *Dr. Michal Hradiš* Brno University of Technology  
Between academia and industry: historical documents and medical AI

12:00 **Lunch Break**

## Thursday 13th July

11:30 Talk Session 5