

Questions?

Responsible people:

Yixing Huang, Paula Andrea Perez,
Abner Hernandez, Noah Maul,
Mingxuan Gu, Zhaoya Pan,
Kai Packhäuser, Mathias Zinnen,
Mathias Öttl, Leonhard Rist,
Sonja Kunzmann, Paul Stöwer,
Merlin Nau, Timo Klemm,
Madeleine Flaucher, Kai Klede,
Thomas Altstidl, Hamid Moradi

For any question regarding the conference,
please contact us at

- cs5-prs-orga@lists.fau.de
- mad-conf@fau.de

Joint PRL and MaD Lab Conference Summer 2021

July 22nd – 23rd

Presentations

Zoom: <https://fau.zoom.us/j/69575328515>

Pattern Recognition Lab

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Machine Learning and Data Analytics Lab

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Thursday 22th July

- 12:30 *Tatiana Ammer (Guest Talk)* MAD
Estimation of Reference Intervals Using Real-World Data
- 12:45 *Fasil Gadjimuradov* PRL/MRI
Robust partial Fourier reconstruction for diffusion-weighted imaging using a recurrent convolutional neural network
- 13:00 *Michael Nissen* MAD
WebPPG - Browser-Based, Easy-To-Use Photoplethysmography Recording for Medical Studies in At-Home Environments
- 13:15 *Christian Bergler* PRL/SAGI
Let's bring it all together!
- 13:30 *Sonja Kunzmann* PRL/CV
Medical Data Donors e.V.
- 13:45 *Falk Pulsmeier* MAD
Clinical Diagnosis Prediction with an explainable AI
- 14:00 Break
- 14:15 *Sebastian Gündel* PRL/LAMBDA
Recognition of Similarities and Abnormalities in Chest Radiographs
- 14:30 *Kai Packhäuser* PRL/LAMBDA
Is Medical Chest X-ray Data Anonymous?
- 14:45 *Wolfgang Mehringer* MAD
Eye Tracking in Ophtalmology
- 15:00 *Paula Pérez* PRL/SAGI
Spoiler Alert by the Interviewer! An Acoustic and Linguistic Approach in the Context of the ADReSSo Challenge
- 15:15 *Phillipp Klumpp* PRL/SAGI
The Phonetic Footprint of Covid-19?
- 15:30 *Jesús David Cerón Bravo* MAD
Simultaneous human activity recognition, mapping and indoor localization for the Ambient Assisted Living
- 15:45 Break
- 16:00 **Poster Session 2**

Friday 23th July

- 8:00 *Malte Ollenschläger* MAD
Assessment of Foot Drop Severity in Patients with spastic Gait
- 8:15 *Zhaoya Pan* PRL/CV
Data Augmentation with Task-Oriented GANs
- 8:30 *Ronak Kosti* PRL/CV
Art, Heart and Emotions
- 8:45 *Alzhraa A. Ibrahim* MAD
Assessing fatigue in MS patients using short IMU-based gait tests
- 9:00 *Mathias Öttl* PRL/LAMBDA
Towards Quantification of HER2 Heterogeneity in Breast Tumors
- 9:15 Break
- 9:30 *Marlies Nitschke* MAD
Prediction of the effect of midsole stiffness and energy return using trajectory optimization
- 9:45 *Merlin Nau* PRL/IPA
SkinScan: Low-Cost 3D-Scanning for Dermatologic Diagnosis and Documentation
- 10:00 *Paul Stöwer* PRL/CCN
The Hippocampus and the successor representation
- 10:15 *Junaid Rajput* PRL/IPA
Pseudo-Square Tomosynthesis Trajectory for Interventional Lung Procedures
- 10:30 Break
- 10:45 **Poster Session 3**
- 12:00 Lunch break

- 12:45 *Prathmesh Madhu* PRL/CV
ICC+: Digital Imdahl 2.0
- 13:00 *Timo Klemm* PRL/IPA
Simulation of photon counting data using GANs
- 13:15 *Thomas Altstidl* MAD
Are Convolutions a Thing of the Past? Recent Insights in Computer Vision on ImageNet
- 13:30 *Christian Marzahl* PRL/CV
Towards Automatic Inter-Species Cell Detection: How deep learning can support the creation of cytological datasets
- 13:45 *Mayank Patwari* PRL/IPA
Deep Learning based Model Observers for Multi-Modal Imaging
- 14:00 Break
- 14:15 *Aniol Serra Juhé* PRL/CV
Workflow analysis in fused depth-images of a virtual MR Examination using Deep-Learning Methods and Augmented Reality techniques
- 14:30 *Lukas Schmidt* MAD
Can you trust your autonomous Car? Interpretable and Verifiably Safe Reinforcement Learning
- 14:45 *Hendrik Schröter* PRL/SAGI
Surpassing frequency resolution for low latency speech enhancement
- 15:00 *Mingxuan Gu* PRL/LAMBDA
Unsupervised Domain Adaptation using Adversarial Learning for Multi-modal Cardiac Image Segmentation
- 15:15 *Mathis Hoffmann* PRL/CV
Module-Power Prediction from PL Measurements using Deep Learning
- 15:30 Break
- 15:45 **Poster Session 4**
- 17:00 BBQ

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Posters in GatherTown

Link: <https://gather.town/invite?token=HLY7qBmJ>

Password: PRS2021!

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Thursday 22th July

Poster Session 2:

16:00	<i>Mathias Zinnen</i>	PRL/CV
	How to See Smells	
16:00	<i>Lukas Folle</i>	PRL/MRI
	Differential diagnosis of arthritis on bone shapes	
16:00	<i>Abner Hernandez</i>	PRL/SAGI
	Linguistic rhythm for detecting dysarthric speech	
16:00	<i>Maximilian Reymann</i>	PRL/IPA
	Comparison of Manifold Learning Methods for Respiratory Gating in SPEC	
16:00	<i>Aline Sindel</i>	PRL/CV
	CraquelureNet: Matching the Crack Structure in Historical Paintings for Multi-Modal Image Registration	
16:00	<i>Dalia Rodriguez</i>	PRL/LAMBDA
	Weak vs Strong Annotations for Automatic Ultrasound Breast Lesion Detection	
16:00	<i>Frauke Wilm</i>	PRL/CV
	Who let the dogs out? CATCH 'em!	
16:00	<i>Madeleine Flaucher</i>	MAD
	The Smartphone as a Diagnostic Device - Colorimetric Analysis of urine dipsticks for at-home Prenatal Care	
16:00	<i>Katharina Jäger</i>	MAD
	Determination of the fetal presentation - Is trans-abdominal ECG an alternative to ultrasound?	
16:00	<i>Nils Roth</i>	MAD
	A mobile gait analysis system for measuring real-world stair ambulation parameters from continuous gait data	
16:00	<i>Matthias Zürl</i>	MAD
	Polar Bear ReID	
16:00	<i>Maike Stöve</i>	MAD
	Eye tracking-based stress assessment of athletes in VR	
16:00	<i>Martin Ullrich</i>	MAD
	Detection of unsupervised standardized gait tests from real-world inertial sensor data in Parkinsons disease	

16:00	<i>Markus Wirth</i>	MAD
	Assessing Visual Exploratory Activity of Athletes in Virtual Reality Using Head Motion Characteristics	

Friday 23th July

Poster Session 3:

10:45	<i>Chang Liu</i>	PRL/LAMBDA
	Anatomy-guided multi-organ segmentation	
10:45	<i>Michael Lechner</i>	PRL/CV
	Multi-Task Learning For Elongation Predictions on Polymere Optical Fibers	
10:45	<i>Felix Meister</i>	PRL/LAMBDA
	Graph convolutional regression of cardiac depolarization from sparse endocardial maps	
10:45	<i>Srikrishna Jaganathan</i>	PRL/IMA
	Deep Iterative 2D/3D Registration	
10:45	<i>Faezeh Nejati Hatamian</i>	PRL/CV
	Deep Learning-based Sheet Metal Formation Analysis	
10:45	<i>PRL-LAVA group</i>	PRL/LAMBDA
	Challenge accepted! Winning a challenge in a day!	
10:45	<i>Philipp Dumbach</i>	MAD
	AI Trend Detection in Healthcare by Analyzing Podcast Data	
10:45	<i>Stefan Förstel</i>	MAD
	Predicting the number of required nursing staff to fulfill the PpUGV	
10:45	<i>René Raab</i>	MAD
	Can we use super-resolution to improve IMU-based gait analysis?	
10:45	<i>An Nguyen</i>	MAD
	Modeling Irregularly Sampled Time Series	
10:45	<i>Carolina Rico-Olarte</i>	MAD
	Electrophysiological activity (EEG) during exergaming: associations with the EEG device, analysis methods, and participant characteristics	

10:45	<i>Mohamad Wehbi</i>	MAD
	Trajectory reconstruction of IMU pen	
10:45	<i>Johannes Roider</i>	MAD
	Improving customer experience with predictive business process monitoring: An overview	

Poster Session 4:

15:45	<i>Julia Schottenhamml</i>	PRL/OPH
	Something with OCTA	
15:45	<i>Arpitha Ravi</i>	PRL/LAMBDA
	Classification of Surgery Phases in Anonymized-Video Data for Interventional Workflow Analysis-using LRCN	
15:45	<i>Celia Martin Vicario</i>	PRL/LAMBDA
	Prediction of stroke outcome at 90d	
15:45	<i>Zijin Yang</i>	PRL/MRI
	Forknet for multi-organ Segmentation	
15:45	<i>Mareike Thies</i>	PRL/IPA
	Calibration by Differentiation - Differentiable Reconstruction for X-ray Microscopy	
15:45	<i>Karthik Shetty</i>	PRL/IMA
	3D reconstruction and rendering from SSM	
15:45	<i>Stefan Ploner</i>	PRL/OPH
	OCT motion correction	
15:45	<i>Robert Richer</i>	MAD
	Assessing the Influence of Acute Psychosocial Stress on Body Posture and Movement	
15:45	<i>Christoph Scholl</i>	MAD
	Information Fusion for Data Quality Indication in IoT Systems	
15:45	<i>Arne Küderle</i>	MAD
	High Frequency Signal Components during Gait	
15:45	<i>Chistoffer Löffler</i>	MAD
	Personalized Similarity Search for Unstructured Ensembles of Trajectory Data	
15:45	<i>Franz Köferl</i>	MAD
	Towards an Optical Visitor Tracking and ReID Solution in the Dt.Museum	
15:45	<i>Annette Hagengruber</i>	MAD
	A new labeling strategy for simultaneous and proportional electromyographic control	