

8th VDE ITG Graduate Summer School on Video Compression and Processing

- Program -

Sunday 02.07.2023

19:30 - 22:00	Welcome Dinner	Restaurant Fürstenfelder
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Monday 03.07.2023

08:30 – 08:50	Registration	Veranstaltungsforum Fürstenfeldbruck
08:50 – 09:00		Welcome

Session 1: Video Coding

09:00 – 09:20	Sophie Pientka	Block-based motion estimation for deep learned video coding
09:20 – 09:40	Anastasia Henkel	Logistic Regression for VVC Mode Decision in VTM and the VVenC Open-Source Encoder
09:40 – 10:00	Fabian Brand	Conditional Inter Frame Coding
10:00 – 10:20	A. Burakhan Koyuncu	Transformer-based Context Modeling in Learned Image Compression
10:20 – 10:40	Nicola Giuliani	Frame synthesis for video coding
10:40 - 11:10	Coffee Break	
11:10 – 11:30	Marc Windsheimer	Multiscale Augmented Normalizing Flows for Image Compression

Session 2: Point Cloud Compression

11:30 – 11:50	Kamal Nambiar	Deep Probabilistic Model for Lossless Scalable Point Cloud Attribute Compression
11:50 – 12:10	Thibaut Meyer	Attribute-aware Partitioning for Graph-based Point Cloud Attribute Coding
12:10 – 12:30	Dominik Mehlem	Combined Coding of Geometry and associated Attributed of Point Clouds using Neural Networks
12:30 - 14:00	Lunch Break	

Keynote Presentation

14:00 – 14:45	Johannes Sauer	Overview over the Development Status of the JPEG AI Standard
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Poster 1

14:45 – 16:00 Coffee served	Nicolas Horst	Investigations on Template Matching-based Reference Subpicture Padding
	Frank Sippel	A Synthetic Hyperspectral Array Video Database
	Adam Misik	Towards Photorealistic 3D Reconstruction through Scan-to-CAD Alignment

	Michael Gentner	Possibilities and Challenges for Multi-View Anomaly Detection in Industrial Quality Inspection
	Reyhan Kevser Keser	Boosting pixel domain performance via cross distillation
	Srivatsa Prativadibhayankaram	Learned Image Compression using Structure and Color

Session 3: Image/Video Processing and QoE

16:00 – 16:20	Andy Regensky	Improving Spherical Image Resampling Through Viewport-Adaptivity
16:20 – 16:40	Katja Kossira	Multispectral Plastic Recognition in the Recycling Process
16:40 – 17:00	Mirko Dulfer	Quantization for MOS recovery in ACR experiments

19:30 – 22:00	Social Event	Hofbräuhaus München
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Tuesday 04.07.2023

Session 4: HDR, Scalability, and Energy Efficiency

09:00 – 09:20	Dominik Keller	Viewing Distances and 8K HDR videos
09:20 – 09:40	Hongjie You	High Dynamic Range Video Tone Mapping Research and Standardisation Efforts
09:40 – 10:00	Martin Benjak	Scalable Videocoding
10:00 – 10:20	Christian Herglotz	Sweet Streams are Made of This: The System Engineer's View on Energy Efficiency in Video Communications
10:20 – 10:40	Onur Can Koyun	SieveNet: An Efficient Model Utilizing H.265 Codec Structure for Video Object Detection

Poster 2

10:40 – 12:30 Coffee served	Hannah Och	Lossy Screen Content Coding Using Soft Context Formation
	Maximiliane Gruber	Exploring Novel Ideas for Unpaired Learning of Image Distortions
	Andreas Kah	Quality-optimized bitrate-ladder generation for video-streaming services
	Mehmet Berk Gülen	Improvements on Deep Image Animation Based Ultra-low Bitrate Video Conferencing
	Anna Mayer	A Novel Cross-Component Context Model for End-to-End Wavelet Image Coding
	Shabhrish Reddy Uddehal	Image Segmentation for Improved Lossless Screen Content Compression

12:30 - 14:00	Lunch	
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14:00 - 17:00	ITG Sitzung	
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