

Al Applications in Neurology,
Oncological & Musculoskeletal Imaging.

UCSF's Center for Intelligent Imaging (*ci*<sup>2</sup>) is joining forces with Friedrich-Alexander-Universität of Erlangen-Nürnberg (FAU) to host a series of fifteen scientific sessions that delve into artificial intelligence for a variety of applications including neuroimaging, oncology, and musculoskeletal imaging. The goal is to promote joint research collaborations, student exchanges and visiting researchers.

## SCIENTIFIC TALKS SESSIONS (9:30 AM - 3:30 PM)

- 1. Machine Learning for MR Image Acquisition and Reconstruction
- 2. Inline AI for Automated and Quantitative CMR Imaging
- 3. Task-Based Reduced k-Space Image Reconstruction with Al
- 4. Multi-scale Al Driven Imaging of Aging: from Cells to Man
- 5. Mapping Brain Structure at Cellular Resolution
- 6. Domain Generalization and Label-Efficient Learning in Digital Pathology and Beyond
- 7. Prostate Cancer Assessment with mpMRI, PSMA PET, and Federated Learning
- 8. Automated Generation of Radiology Report Impressions from Free-Text Findings Using Sentence Transformers
- 9. Information Commons
- 10. Long-Tail Problems in Medical Image Analysis
- 11. Image Processing for Neuroradiologic Diagnosis
- 12. Robust and Ultralow-Parameter Denoising in Computed Tomography
- 13. Geometry Gradients for CT Motion Compensation
- 14. Assessment of Musculoskeletal Health at the Micro-scale by Photon Counting Computed Tomography
- 15. Cracking the Black Box of Deep Sequenced-Based Protein-Protein Interaction Prediction



## **KEYNOTE (4 PM)**

Dorin Comaniciu, Senior Vice President of Artificial Intelligence and Digital Innovation at Siemens Healthcare, who will talk about **Artificial Intelligence for Healthcare: The Road Ahead** 



## **FAU-UCSF ITINERARY, WEDNESDAY, MARCH 29**

Start	End	Description	Facilitator(s)		Venue
8:30 AM	9:15 AM	Meet & Greet / Light Breakfast			l 102
9:15 AM	9:30 AM	Welcome and Introduction	Christopher Hess, MD, PhD Sharmila Majumdar, PhD Andreas Rauschecker, MD, PhD Joachim Hornegger, PhD		
9:30 AM	3:45 PM	SCIENTIFIC TALKS			
9:30 AM	9:50 AM	Machine Learning for MR Image Acquisition and Reconstruction		Florian Knoll, PhD Marc Vornehm Erik Goesche	
9:50 AM	10:10 AM	Inline AI for Automated and Quantitative CMR Imaging		Yang Yang, PhD	
10:10 AM	10:30 AM	Task-Based Reduced k-Space Image Reconstruction with Al		Aniket Tolpadi, PhD	
10:30 AM	10:50 AM	Multi-scale Al Driven Imaging of Aging: from Cells to Man		Valentina Pedoia, PhD	
10:50 AM	11:10 AM	Mapping Brain Structure at Cellular Resolution		Christoph Kirst, PhD	
11:10 AM	11:15 AM	BREAK			
11:15 AM	11:35 AM	Domain Generalization and Label-Efficient Learning in Digital Pathology and Beyond		Katharina Breininger, PhD	
11:35 AM	11:55 AM	Prostate Cancer Assessment with mpMRI, PSMA PET, and Federated Learning		Peder Larson, PhD	
11:55 AM	12:15 PM	Automated Generation of Radiology Report Impressions from Free- Text Findings Using Sentence Transformers		Jae Ho Sohn, MD, MS	
12:15 PM	12:35 PM	Information Commons		Jason Crane, PhD	
12:35 PM	1:40 PM	Lunch Break – Boxed lunches			
1:40 PM	2:00 PM	Long-Tail Problems in Medical Image Analysis		Bernhard Kainz, PhD Johanna Mueller	
2:00 PM	2:20 PM	Image Processing for Neuroradiologic Diagnosis		Andreas Rauschecker, MD, PhD	
2:20 PM	2:40 PM	Robust and Ultralow-Parameter Denoising in Computed Tomography		Andreas Maier, PhD Fabian Wagner	
2:40 PM	3:00 PM	Geometry Gradients for CT Motion Compensation		Mareike Thiess	
3:00 PM	3:20 PM	Assessment of Musculoskeletal Health at the Micro-scale by Photon Counting Computed Tomography		Andrew Burghardt	
3:20 PM	3:40 PM	Cracking the Black Box of Deep Sequenced-Based Protein-Protein Interaction Prediction		David Blumenthal, PhD Jana Kiederle Nicolai Meyerhoefer	
3:40 PM	4:00 PM	BREAK			
4:00 PM	5:00 PM	Keynote Address - Artificial Intelligence for Healthcare: The Road Ahead		Dorin Comaniciu, PhD	Rock Hall 102
5:00 PM	6:00 PM	Wine & Cheese Reception		Rock Hall	

