Machine Learning Conference for X-Ray and Neutron-Based Experiments, Munich 2024

Tuesday, 9 April 2024

Posters: Poster Session (16:50 - 18:50)

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[103] UNet-based Segmentation of 3D Volumetric microtomography geological samples	HARO FERNANDEZ, Diego bladimir	
[25] Investigating gold deposition of HiPIMS and dcMS on Polystyrene, Poly-4-vinylpyridine and Polystyrenesulfonicacid	BULUT, Yusuf	
[17] CrysFieldExplorer: Rapid Optimization of the Crystal Field Hamiltonian	MA, Qianli	
[41] Analysis and Segmentation of Nucleus with U-Net	EROZAN, Ayse	
[56] A Study on Minimizing Measurement Time Based on Active Experimentation for Energydispersive X-Ray Diffraction	LIEHR, Alexander	
[30] Exploring the limits of the random forest algorithm for the classification of X-ray absorption spectra	RETEGAN, Marius	
[57] Machine Learning Approaches on X-ray Scattering Beamline: First results and perspectives	Dr MICHA, Jean-Sébastien	
[100] KI4D4E: Machine Learning Approach for Digital Volume Correlation in 4D Computed Tomography Data at Synchrotron Radiation Beamlines	WONG, Tak Ming	
[82] Analyzing collective excitations using implicit neural representations	Mr CHITTURI, Sathya	
[101] A method to correct angular distortions in Bragg Coherent X-ray Diffraction Imaging	CHEN, Huaiyu	
[107] In Situ GIWAXS of Slot-Die Coated Perovskite Quantum Dot Thin-Films	BAIER, Thomas	
[83] Supervised Machine Learning Approach for Phase Identification in Neutron and X-ray Powder Diffraction Experiments	KADRI, Loubna	
[108] Phase behavior of thermo- and photoresponsive diblock copolymers for non-invasive schizophrenic switching	ZHANG, Peiran	
[95] Energy-Dispersive Detection of X-rays with CMOS Cameras: A Machine Learning Approach	Dr BAUMANN, Jonas	
[85] The use of artificial neural networks for the unfolding procedures in neutron activation measurements	JOVANCEVIC, Nikola	
[91] Providing datasets to characterize process- or deformation-induced structure formation of polymer materials via in situ synchrotron X-ray experiments	SAMBALE, Anna Katharina	
[66] Using machine learning to optimize the crystal volume of protein crystals	SCHRADER, Tobias	
[51] Neural Network based reflectometry analysis of liquid-gas interfaces	HÖVELMANN, Svenja	
[10] Automatized data analysis for surface XRD	BATRAEV, Radik	
[7] A Deep Learning approach for Gamma spot removal in CCD-based neutron imaging	SCHULZ, Michael	
[11] The small angle neutron scattering instrument KWS1	FRIELINGHAUS, Henrich	
[81] Gaussian processes regression for preliminary data evaluation at DNS	KOSHCHII, Oleksandr	

[26] Biopolymer-Templated Deposition of Hierarchical 3D-Structured Graphene Oxide/Gold Nanoparticle Hybrids for Surface-Enhanced Raman Scattering	GUO, Yingjian	
[84] Deciphering SASE X-ray Pulse Characteristics with β-Variational Autoencoder Networks	GOETZKE, Gesa	
[40] Hierarchical Bayesian approach for adaptive integration of Bragg peaks in time-of-flight neutron scattering data	ZHANG, Guannan RESHNIAK, Viktor WANG, Xiaoping	
[96] In situ GISAXS investigation of sputtering IZO thin film for optoelectronic applications	ZHONG, Huaying	
[53] Tackling Laue pattern solving using neural networks	ČERVEŇ, Tomáš	
[89] EFFECT OF PEROVSKITE NANOCRYSTAL NUCLEATION SEEDS ON MICROSTRUCTURE AND CRYSTALLIZATION PATHWAYS IN ORGANIC-INORGANIC HALIDE PEROVSKITE THIN FILMS	Mr BUYAN-ARIVJIKH, Altantulga	
[58] Machine learning short-range spin correlations in pyrochlore antiferromagnet Gd2Hf2O7	XU, Jianhui	
[115] Machine learning for the generation of virtual histology images from X-ray phase contrast tomography of biodegradable metal bone implants	IRVINE, Sarah	
[6] Information theory elements for data analysis	PARDO SOTO, Luis Carlos	
[94] A solid-state electrolyte interface layer-amphiphilic polymer/metal composite nanoarray for lithium metal battery	XU, Zhuijun	
[55] Deep Live Phase Retrieval for Ptychography	WELKER, Simon	
[109] Tuning the bandgap of double perovskite by anion exchange	JIN, Zhaonan	
[20] Machine Learning-Based Crystal Structure Direct Prediction from Neutron Powder Diffraction	WANG, Hao	
[39] Establishing Multi-resolution, Multi-modal Data Fusion of Synchrotron Imaging Modalities at Diamond Light Source	GREEN, Calum	
[71] Revealing the effect of solvent additive selectivity on the formation kinetics in printed active layers for organic solar cells	ZHANG, Jinsheng	
[92] In situ study of morphology evolution of block copolymer templated metal oxide films	PAN, Guangjiu	
[42] Assisting users on model selection in small angle neutron scattering experiments	ROBLEDO, Jose	
[105] Operando study on structure-activity relationship between electrolyte components and electrochemical performance for all-solid-state lithium-ion batteries	YAN, Yingying	
[79] Using PyDevice to connect Beamline simulations to a controls framework (Bluesky/EPICS)	WYMAN, Max	
[34] Phase retrieval by a conditional Wavelet Flow: applications to near-field X-ray holography	AGUILAR, Ritz	
[104] In situ GISAXS investigation of ternary hybrid diblock copolymer thin films containing two types of magnetic nanoparticles	EVERETTT, Christopher	
[35] Machine Learning-based Auto-indexing of Neutron Diffraction Pattern from China Spallation Neutron Source	DU, Rong	
[16] Leveraging Automatic Differentiation in Complex Model Fitting	THIESSENHUSEN, Erik	
[93] KDSource, an Open-Source Code for the generation of Monte Carlo particle sources using Kernel Density Estimation	Mr SCHMIDT, Norberto	

[98] AI/ML-supported evaluation of PGAA data	Dr STIEGHORST, Christian	
[28] Integrating Machine Learning into X-ray Data Analysis: Insights from GRADES at SOLEIL	FARHI, Emmanuel BELLACHEHAB, Anass	
[68] Exploring the Efficacy of Machine Learning in Interatomic Potentials and Neutron Scattering Spectra Predictions	YILDIRIM, Taner	
[2] Mapping the ICSD	RATCLIFF, William	
[44] McStas Union simulations of a 15 T magnet and background prediction with Machine Learning	KARAKOSTA, Petroula	
[49] Hamiltonian-driven modeling using image-recognition-based neural networks in rare-earth spin systems	Dr CAO, Huibo	
[54] Online Classification of Diverse Metal Materials Using PGNAA and Machine Learning	SHAYAN, Helmand	
[19] Developments in Event Mode Data Analysis	BENTLEY, Phillip	
[114] Metainference simulations to interpret small-angle scattering experiments of non-conventional surfactants	MUSSELI CEZAR, Henrique	
[14] Grazing-Incidence X-ray Scattering Data for Machine Learning of Neural Networks	HEGER, Julian	
[88] Providing datasets to characterize process- or deformation-induced structure formation of polymer materials via in situ synchrotron X-ray experiments	EUCHLER, Eric	
[8] Making photon and neutron open data machine-learning ready: a workshop and a roadmap	STEINBACH, Peter	
[76] Artificial intelligence methods for synchrotron radiation image and diffraction data analysis	□, □□	
[87] ROADMAP: Reflectometry-driven Optimization And Discovery of Membrane Active Peptides	HEINRICH, Frank	
[47] AI-supported preclassification of GISAXS images: mathematical identity detection by autoencoders	SCHAEFER, Eric SKWAREK, Volker	
[38] Artificial neural networks, operando X-ray powder diffraction CT and functional devices	VAMVAKEROS, Antonis	
[77] Machine learning methods research on predicting protein profile parameters by synchrotron radiation small-angle X-ray scattering	LI, Qingmeng	
[37] Deep learning based approach for speeding up the extraction of morphological parameters in GISAXS data	DAN, Shachar	
[73] The effect of a sputter-deposited TiOx interface modification layer on perovskite solar cells	JIANG, Xiongzhuo	
[70] Operando GIWAXS Observation of the Stabled degradation process of Green-solvent Based PBDB-TF-T1: BTP-4F-12 Organic Solar Cells with EH-P as Solid Additive	LI, ZERUI	
[43] Machine Learning-Based Analysis of X-ray Scattering for Characterizing Guadua Bamboo	NORIEGA BENITEZ, Enriqueta	
[80] Validating the use of Gaussian Process Regression for Adaptive Mapping of Residual Stress Fields	FANCHER, Chris	
[110] Machine Learning-driven Quantification of XRF Data: Integrating Sample Generation and Simulation for Enhanced Analysis	FÖRSTE, Frank	
[116] Injectable hydrogels from thermoresponsive tri- and tetrablock terpolymers investigated using scattering methods	ZHENG, Feifei	

[86] Versatile Inverse Problem Framework	Dr HÄUSLER, Stefan VEZHLEV, Egor Dr GANEVA, Marina
[67] Characterization of Mesoporous Zinc Titanate Hybrid Films Using Grazing Incidence Small-angle X-ray Scattering	LI, Yanan
[59] Machine Learning (ML)-Assisted Fabrication and Scattering data for Solar Cells	XIONG, Shuxian
[111] Enhanced air stability of Tin Based Perovskite Solar Cells with Quercetin	CI, Xiaojing
[1] Investigation of detector backlighting and other effects in neutron darkfield images	Dr AL-FALAHAT, Ala'a
[69] Generative models for Inverse Problems: The phase retrieval problem from a single distance intensity measurement	HAILU, Dawit
[21] Physics Informed Neural Networks for Neutron Transport in Large Sample Prompt-Gamma Activation Analysis	JESSER, Alexander
[52] ALSA: Automatic Laue Sample Aligner	VENCLÍK, Štěpán
[78] Strategy to Simulate and Fit 2D GISAXS Patterns of Nanostructured Thin Films	PAPADAKIS, Christine M.
[112] Conformation of star-like molecular brushes with amphiphilic diblock copolymer side arms	XU, Wenqi