

ML-IAP/CCA-2023**Monday, November 27, 2023****Contributed talks: Block 1 (3:15 PM - 4:15 PM)**

time	[id] title (track)	presenter
3:15 PM	[48] Field-Level Inference with Microcanonical Langevin Monte Carlo (New York)	BAYER, Adrian
3:30 PM	[38] Current progress and challenges from the Cosmology and Astrophysics with Machine Learning Simulations (CAMELS) project (New York)	ANGLES-ALCAZAR, Daniel
3:45 PM	[40] Data Compression and Inference in Cosmology with Self-Supervised Machine Learning (New York)	AKHMETZHANOVA, Aizhan
4:00 PM	[59] DeepSZSim: Fast Simulations of the Thermal Sunyaev–Zel'dovich Effect in Galaxy Clusters for Simulation-based Inference (New York)	VAVAGIAKIS, Eve
4:06 PM	[53] Probing primordial non-Gaussianity by reconstructing the initial conditions with convolutional neural networks (New York)	CHEN, Xinyi
4:09 PM	[86] Simulation-based inference with non Gaussian statistics in the Dark Energy Survey (New York)	GATTI, Marco

Contributed talks: Block 2 (4:45 PM - 6:30 PM)

time	[id] title (track)	presenter
4:45 PM	[4] SNAD: enabling discovery in the era of big data (Paris)	PRUZHINSKAYA, Maria
5:00 PM	[23] DE-VAE: a representation learning architecture for a dynamic dark energy model (Paris)	PIRAS, Davide
5:15 PM	[46] A Bayesian Neural Network based ILC method to estimate accurate CMB polarization power spectrum over large angular scales (Online)	YADAV, Sarvesh Kumar
5:18 PM	[54] Multiview Symbolic Regression in astronomy (Online)	RUSSEIL, Etienne
5:21 PM	[12] Machine learning for new physics (Paris)	FERTÉ, Agnès
5:36 PM	[2] Toward automated discovery of analytical physical laws from data using deep reinforcement learning (Paris)	TENACHI, Wassim
5:51 PM	[71] Latent space out-of-distribution detection of galaxies for deblending in weak lensing surveys (Paris)	MES, Jelle
5:54 PM	[118] Fishnets: Mapping Information Geometry with Robust, Scalable Neural Compression (Paris)	WANDEL, Benjamin MAKINEN, Lucas
5:57 PM	[100] Extracting physical rules from ensemble machine learning for the selection of radio AGN. (Paris)	CARVAJAL, Rodrigo
6:00 PM	[50] Opportunities and challenges of machine learning for astrophysics (Paris)	MCEWEN, Jason
6:03 PM	[96] The terms Eisenstein and Hu missed (Paris)	BARTLETT, Deaglan

Tuesday, November 28, 2023

Contributed talks: Block 3 (3:00 PM - 3:54 PM)

time	[id] title (track)	presenter
3:00 PM	[103] Field-level inference of primordial non-Gaussianity, using next-generation galaxy surveys (Paris)	ANDREWS, Adam
3:15 PM	[26] SBI meets reality: simulation-based inference in practical cosmology applications (Paris)	JOACHIMI, Benjamin
3:18 PM	[128] Sampling with Hamiltonian Neural Networks (Paris)	SOUVETON, Vincent
3:21 PM	[119] The Cosmic Graph: Optimal Information Extraction from Large-Scale Structure using Catalogues (Paris)	MAKINEN, Lucas
3:24 PM	[83] Reconstruction of cosmological initial conditions with sequential simulation-based inference (Paris)	SAVCHENKO, Oleg
3:27 PM	[93] EFTofLSS meets simulation-based inference: σ_8 from biased tracers (Paris)	TUCCI, Beatriz
3:30 PM	[67] Field-level Emulator within Bayesian Origin Reconstruction from Galaxies (BORG) (Paris)	DOESER, Ludvig
3:36 PM	[45] Dealing with systematic effects: the issue of robustness to model misspecification (Paris)	Mr LECLERCQ, Florent
3:39 PM	[85] Domain Adaptive Graph Neural Networks for Constraining Cosmological Parameters Across Multiple Data Sets (Paris)	RONCOLI, Andrea

Contributed talks: Block 4 (4:23 PM - 5:30 PM)

time	[id] title (track)	presenter
4:23 PM	[105] Galaxy modeling with physical forward models and generative neural networks (New York)	MELCHIOR, Peter
4:38 PM	[30] Neutrino mass constraint from an Implicit Likelihood Analysis of BOSS voids (New York)	THIELE, Leander
4:45 PM	[9] Machine learning cosmology from void properties (New York)	WANG, Bonny Y.
4:52 PM	[110] Harnessing Differentiable and Probabilistic Programming for Scalable and Robust Statistical Analysis of Astronomical Surveys (New York)	Dr SPURIO MANCINI, Alessio
4:55 PM	[87] A Reanalysis of BOSS Galaxy Clustering Data with a Simulation-Based Emulator of the Wavelet Scattering Transform (New York)	VALOGIANNIS, Georgios
4:58 PM	[11] A neural-network emulator for the Lyman- α flux power spectrum (New York)	CABAYOL-GARCIA, Laura
5:01 PM	[55] Towards an Astronomical Foundation Model for Stars with a Transformer-based Model (New York)	LEUNG, Henry
5:16 PM	[91] Before real data: pressing graph neural networks to do field-level simulation-based inference with galaxies (Online)	SOLER MATUBARO DE SANTI, Natalí
5:23 PM	[75] Modeling galaxy orientations on the SO(3) manifold with score-based generative models (New York)	JAGVARAL, Yesukhei

Wednesday, November 29, 2023

Contributed talks: Block 5 (3:00 PM - 4:01 PM)

time	[id] title (track)	presenter
3:00 PM	[37] Prioritising Follow-up for Transient Surveys in the New Era of Time-Domain Astronomy (New York)	MUTHUKRISHNA, Daniel
3:15 PM	[107] Convolutional Neural Networks for Exoplanet Detection in Photometric Light Curves From Massive Data Surveys (New York)	ISHITANI SILVA, Stela
3:22 PM	[104] Vision Transformers for Cosmological Inference from Weak Lensing (New York)	AGRAWAL, Shubh
3:25 PM	[99] TheLastMetric: ML for statistically rigorous observing strategy optimization (New York)	MALZ, Alex
3:28 PM	[8] Deconstructing the galaxy merger sequence with machine vision (New York)	BICKLEY, Robert
3:31 PM	[112] Doing More With Less; Label-Efficient Learning for Euclid and Rubin (New York)	WALMSLEY, Mike
3:46 PM	[58] Subhalo effective density slope measurements from HST strong lensing data with neural likelihood-ratio estimation (New York)	ZHANG, Gemma

Contributed talks: Block 6 (4:30 PM - 5:30 PM)

time	[id] title (track)	presenter
4:30 PM	[69] Deep Learning Generative Models to Infer Mass Density Maps from SZ, X-ray and Galaxy Members Observations in Galaxy Clusters (Paris)	DE ANDRÉS, Daniel
4:45 PM	[106] Explaining dark matter halo abundance with interpretable deep learning (Paris)	GUO, Ningyuan (Lillian)
5:00 PM	[66] Perturbation theory emulator for cosmological analysis (Paris)	TRUSOV, Svyatoslav
5:03 PM	[121] Debating the Benefits of Differentiable Cosmological Simulators for Weak Lensing Full-Field Inference (LSST Y10 case study) (Paris)	ZEGHAL, Justine
5:06 PM	[68] Fast realistic, differentiable, mock halo generation for wide-field galaxy surveys (Paris)	DING, Simon
5:09 PM	[16] Emulating the Universe: overcoming computational roadblocks with Gaussian processes (Paris)	GIBLIN, Benjamin
5:12 PM	[35] Who threw that rock? Tracing the path of martian meteorites back to the crater of origin using ML (Online)	SERVIS-NUSSBAUM, Konstantinos
5:27 PM	[24] Investigations for LSST with Machine Learning: Photometric redshift predictions, strong lens detection and mass modeling (Paris)	SCHULDIT, Stefan

Thursday, November 30, 2023

Contributed talks: Block 7 (3:00 PM - 4:05 PM)

time	[id] title (track)	presenter
3:00 PM	[111] Causal graphical models for galaxy surveys (Paris)	DI GIOIA, Serafina
3:15 PM	[25] Efficient and fast deep learning approaches to denoise large radioastronomy line cubes and to emulate sophisticated astrophysical models (Paris)	EINIG, Lucas
3:30 PM	[61] CNNs reveal crucial degeneracies in strong lensing subhalo detection (Online)	Dr O'RIORDAN, Conor
3:37 PM	[62] Selection functions of strong lens finding neural networks (Paris)	HERLE, Aniruddh
3:44 PM	[36] Extending the Reach of Gaia DR3 with Self-Supervision (Paris)	MCKAY, Aydan
3:59 PM	[145] ChatGaia (New York)	Mr KOBLSCHKE, Nolan

Contributed talks: Block 8 (4:30 PM - 5:33 PM)

time	[id] title (track)	presenter
4:30 PM	[126] HySBI - Hybrid Simulation-Based Inference (New York)	Dr MODI, Chirag
4:45 PM	[17] Machine Learning Powered Inference in Cosmology (New York)	LEMOS, Pablo
5:00 PM	[19] Cosmology with Galaxy Photometry Alone (New York)	HAHN, ChangHoon
5:15 PM	[79] Cosmological constraints from HSC survey first-year data using deep learning (New York)	HAIMAN, Zoltan
5:30 PM	[108] Assessing and Benchmarking the Fidelity of Posterior Inference Methods for Astrophysics Data Analysis (Online)	NEVIN, Becky

Friday, December 1, 2023

Contributed talks: Block 9 (3:00 PM - 4:01 PM)

time	[id] title (track)	presenter
3:00 PM	[97] Data-driven galaxy morphology at $z > 3$ with contrastive learning and cosmological simulations (Online)	VEGA FERRERO, Jesús
3:15 PM	[72] Likelihood-free Forward Modeling for Cluster Weak Lensing and Cosmology (Online)	TAM, Sut Ieng
3:30 PM	[114] Optimizing Galaxy Sample Selections for Weak Lensing Cluster Cosmology (New York)	RAU, Markus
3:33 PM	[113] Embedding Neural Networks in ODEs to Learn Linear Cosmological Physics (New York)	SULLIVAN, James
3:36 PM	[28] Finding Observable Environmental Measures of Halo Properties using Neural Networks (New York)	BOWDEN, Haley
3:39 PM	[63] Machine learning as a key component in the science processing pipelines of space- and ground-based surveys? (New York)	AUDENAERT, Jeroen
3:46 PM	[39] Machine-directed gravitational-wave counterpart discovery (Online)	SRAVAN, Niharika

Contributed talks: Block 10 (4:30 PM - 6:00 PM)

time	[id] title (track)	presenter
4:30 PM	[31] Spatially Variant Point Spread Functions for Bayesian Imaging (Paris)	Mr EBERLE, Vincent
4:45 PM	[90] Generative Topographic Mapping for tomographic redshift estimates (Paris)	AUFORT, Grégoire
5:00 PM	[89] Reionisation time fields reconstruction from 21 cm signal maps (Paris)	HIEGEL, Julien
5:15 PM	[74] Significance Mode Analysis (SigMA) for hierarchical structures (Paris)	RATZENBÖCK, Sebastian
5:30 PM	[115] Anomaly detection using local measures of uncertainty in latent representations (Paris)	Dr PORTER, Fiona
5:45 PM	[123] Scientific Discovery from Ordered Information Decomposition (Paris)	HO, Matthew