

4th IAEA Technical Meeting on Fusion Data Processing, Validation and Analysis

Tuesday, 30 November 2021

Tuesday 30 Nov: Data Analysis for Fusion Reactor; (Chaired by D. Mazon) (12:00 - 12:55)

time	[id] title	presenter
12:00	[2] FAST CHARACTERIZATION OF PLASMA STATES IN W7-X WITH PERMUTATION ENTROPY	GUERRERO ARNAIZ, Juan
12:15	[69] Offline automated model predictive control of SOLPS-ITER plasma edge simulations	Dr DE PASCUALE, Sebastian
12:30	[74] Single Gaussian process method for profile fitting in arbitrary tokamak regimes	LEDDY, Jarrod
12:45	[70] Informed Sampling of the Plasma Hyperspace for Digital Twinning	GOPAKUMAR, Vignesh

Tuesday 30 Nov: Uncertainty Propagation of Experimental Data in Modelling Codes; (Chaired by D. McDonald) (12:55 - 14:05)

time	[id] title	presenter
12:55	[53] FAST INTEGRATED MODELLING USING A NEURAL NETWORK SURROGATE MODEL FOR TURBULENT TRANSPORT	VAN DE PLASSCHE, Karel
13:20	[24] IMPROVEMENTS IN EFFICIENCY OF GYROKINETIC SIMULATION RUNS WITH CONVOLUTIONAL NEURAL NETWORK MODELS ANALYZING NONLINEAR SATURATION PROCESSES	NARITA, Emi
13:35	[30] Utilising cloud resources to perform Monte-Carlo based UQ of fusion simulations	BUCHANAN, James
13:50	[47] NON-PARAMETRIC INFERENCE OF IMPURITY TRANSPORT COEFFICIENTS IN THE ASDEX UPGRADE TOKAMAK.	Dr NISHIZAWA, Takashi

Tuesday 30 Nov: Applications of probabilistic inference and statistics; (Chaired by G. Verdoolaege) (14:05 - 15:55)

time	[id] title	presenter
14:05	[78] Bayesian Inference of Experimental Particle Transport in Tokamak Plasmas	SCIORTINO, Francesco
14:30	[23] BAYESIAN PROBABILISTIC DATA ANALYSIS PLATFORM R&D ON HL-2A	WANG, Tianbo
14:45	[46] Development of Data Assimilation System for Control of Toroidal Plasmas	Mr MORISHITA, Yuya
15:00	[56] A Bayesian model of filamentary dynamics in MAST	APPEL, Lynton
15:15	[73] Normalizing flows for likelihood-free inference with fusion simulations	CHURCHILL, Randy
15:30	[76] Energy confinement scaling with machine size in the updated ITPA global H-mode confinement database	HALL, Joseph Mr ZHANG, Peizheng
15:45	[44] AN EXAMPLE FOR COMPLEMENTARITY BETWEEN PLASMA PHYSICS AND DATA-DRIVEN RESEARCH	YOKOYAMA, Masayuki