ICFDT6 PROGRAMME

Type	Author	Title	Day	hour
		Wednesday, 19 October 2022		
Type	Author	Title	Day	hour
		Directors Speeches	19oct	9.00-9.10
		Joint Session on Imaging and Fast Particles / Fusion products		
T1	P F Mathieu	The Rise of Artificial Intelligence for Earth Observation	19oct	9.10-9.40
T2	M Nocente	Fusion products and fast ion diagnostics in JET DTE2 campaign	19oct	9.40-10.10
O33	M Scholtz	Concept of a compact high-resolution neutron spectrometer based on Gas Electron Multiplier detector for fusion plasmas	19oct	10.10-10.30
	Coffee		19oct	10.30-11.00
O34	D Batani	Overview on diagnostics for inertial fusion	19oct	11.00-11.20
O1	F Consoli	Alpha diagnostics of laser-triggered p-^{11}B low-rate nuclear reactions	19oct	11.20-11.40
O2	M Salvadori	Advanced Time-Of-Flight diagnostics for real-time ion spectrometry in high- intensity laser-matter experiments	19oct	11.40-12.00
		Session on Medical Diagnostics		
T3	G Manenti	The Role of Diagnostic Imaging in the III Millennium	19oct	12.00-12.30
O3	S de Sousa	Biological dosimetry of diagnostic X-Ray and MR imaging procedures	19oct	12.30-12.50
O4	F D'Errico	Entrance dosimetry for image-guided diagnostic and therapeutic radiology procedures	19oct	12.50-13.10
	lunch		19oct	13.15-14.30
		Session on Spectroscopy		
O5	A Curcio	Observation of tunable parametric X-ray radiation emitted by laser-plasma electron beams interacting with crystalline structures	19oct	14.30-14.50
O6	D Giulietti	Betatron radiation as a diagnostics for Laser Plasma Acceleration	19oct	14.50-15.10
		Special session on diagnostics for industrial and cold plasmas, and environmental applications		
T4	V Palleschi	Recent developements of Laser-Induced Breakdown Spectroscopy for Industrial and Environmental Diagnostics	19oct	15.10-15.40
O7	M Caponero	Use of FBG sensors in advanced civil engineering application	19oct	15.40-16.00
	Coffee		19oct	16.00-16.15
O8	S Almaviva	Development of a compact in-situ LIBS device for nuclear fusion applications	19oct	16.15-16.30
O9	F Duschek	Remote Detection of Chlorine Gas Detection	19oct	16.30-16.45
O10	L Dreier	Mid-Infrared Standoff Detection of Explosives Using a Tunable EC- QCL	19oct	16.45-17.00
PB8 remote	Yu Kovtun	Overview of TOMAS Plasma Diagnostics	19oct	17.00-17.10
PB11 remote	S Feng	Designing a SiPM-based Cherenkov detector for measurement of 16.7 MeV gamma-rays from the T(d,γ) 5 He reaction using Geant4	19oct	17.10-17.20

		POSTER SESSION A *Wednesday, 19 October 17.30-18.30*		
PA4	S Cancelli	Characterisation of N2-GEM: an innovative beam monitor for thermal neutrons		
PA5	A Puleio	Weighted-LSM method, an approach to improve possibility of classification and measure of concentration of biological sample using LiF techniques		
PA6	A Castaldo	Strain and vibration measurements by FBG sensors for engineering applications		
PA7	N Rutigliano	Real-time detection of warming signal of particulate emission based on fixed threshold using a Lidar system		
PA8	H Willett	TriWaSp: A multi-faceted visible spectroscopy diagnostic on the ST40 tokamak		
PA10	M A Vincenti	Optical characterization of lithium fluoride thin-film imaging detectors for monochromatic hard X-rays		
PA11	J Wood	Characterization of ion temperature and toroidal rotation on the ST40 tokamak		
PA12	F Filippi	Plasma Density Profile Reconstruction Of A Gas Cell For Ionization Induced Laser Wakefield Acceleration		
PA13	A Fassina	Multipass optical cavity for low density plasma polarimetry: numerical analysis and detection schemes		
PA14	E Perelli-Cippo	Towards the use of SDD as an absolute detector for high-energy neutron measurements		
PA15	M H Kushoro	Perspectives for a Silicon Carbide Detector in Fusion Plasma Monitoring		
PA16	O Putignano	Conceptual design of a thick GEM based photon pre-amplifier for gamma-ray measurements with Cherenkov detectors in magnetically confined fusion plasmas		

Type	Author	Title	day	hours
		Thursday, 20 October 2022		
		Session on Diagnostics for New Machines		
O11	T Nakano	Overview of the JT60SA Diagnostics	20oct	9.00-9.20
O12	M Walsh	Diagnostics Evolutions necessary for ITER and Beyond	20oct	9.20-9.40
O14	L Gabellieri	Overview of DTT Diagnostics conceptual design	20oct	9.40-10.00
O14.1	B Gonçalves	Advances, challenges, and future perspectives of reflectometry for plasma position and shape control on future fusion experiments	20oct	10.00-10.20
	Coffee		20oct	10.30-11.00
O13	M Tardocchi	Private enterprises in fusion: an opportunity for innovative nuclear diagnostics	20oct	11.00-11.15
		Satellite meeting on Diagnostics for High Energy Physics and Plasma Acceleration		
O15	L Foggetta	The use of Timepix silicon detectors for detecting beam characteristics in different particle beam types and their daily use.	20oct	11.15-11.40
O16	P Grutta	Sapphire (Al2O3) micro-strip detectors for high intensity gamma beam profile monitoring for the LUXE experiment at DESY	20oct	11.40-12.00
O24.1	F Sarti	ESA EO training activities, for EO data processing and applications, also taking advantage of new developments in AI	20oct	12.00-12.15
O18	A Cianchi	Diagnostics of ultra short beams for plasma acceleration	20oct	12.15-12.35
O19	A Biagioni	Effects of the plasma source aging on the plasma formation process	20oct	12.35-12.55
O17	G Mitsuka	Beam size monitoring with X-ray imaging in the SuperKEKB e+e- collider	20oct	12.55-13.15
	lunch		20oct	13.15-14.30
		Session on Artificial Intelligence and Data Science		
O20	D Mazon	SXR measurement and associated inversion: a crucial tool for controlling fusion performances	20oct	14.30-14.50
O21	G Verdoolaege	Bayesian probability for integrated data analysis and pattern recognition in fusion plasmas	20oct	14.50-15.10
O22	R Schneider	How can satellite products and a Digital Twin engine add value to environmental health applications?	20oct	15.10-15.30
O23	M Gelfusa	Extracting physically meaningful models directly from data with machine intelligence tools	20oct	15.30-15.50
	Coffee		20oct	15.50-16.15
O24	A Murari	Identification of complex systems: diagnostics for Tokamak control as a case study	20oct	16.15-16.40
O28	J Vega	Predicting and Understanding Catastrophic Events: Tokamak Disruptions, an Issue for Thermonuclear Fusion an Opportunity for Society	20oct	16.40-17.00

		POSTER SESSION B **Thursday, 20 October 2022 17.00-18.00**		
PB1	R Rossi	Plasma Reconstruction using Physics Informed Neural Networks		
PB2	E Peluso	Maximum Likelihood Tomography: from Data Analysis to Diagnostic Design		
PB3	A Drago	Fast Transient Infrared Detection for Time Domain Astronomy		
PB4	S Arjmand	Plasma production and characterization in high gradient particle acceleration		
PB5	O S Khwairakpam	Laser Photo-ionization of natural Ag in the SPES offline laser lab, INFN-LNL		
PB6	I Wyss	Investigating the Dependencies of JET Radiation Patterns on the Main Global Plasma Parameters		
PB7	L Martellucci	Signal Processing and Machine Learning approach for Alarm detection and Classification with uncalibrated gas sensors		
PB8	Yu Kovtun	Overview of TOMAS Plasma Diagnostics		Remote poster
PB9	B Jagielski	The diagnostic-magnet laboratory: studying plasma physics and diagnostics in strong and variable magnetic fields		
PB10	I Kudashev	Development of a set of synthetic diagnostics for the WEST tokamak to confront 2D transport simulations and experimental data		
PB11	S Feng	Designing a SiPM-based Cherenkov detector for measurement of 16.7 MeV gamma-rays from the $T(d,\gamma)5He$ reaction using Geant4		Remote poster
PB12	D Testa	Conceptual design and prototyping of inductive magnetics sensors for DTT using photo- lithography processes		
PB13	G De Masi	Present status of the design of the reflectometric system for DTT		
PB14	D Iannarelli	Indirect measurement of electron temperature in the Protosphera's pinch plasma		
PB15	D Fiorucci	Feasibility study of an enhanced heterodyne dispersion interferometer		
PB16	G Marcer	Analytical and MonteCarlo calculations for inferring the total gamma ray emission from the JET tokamak		
PB17	L Spolladore	A Data Driven Method to Identify Dimensionless Variables for Scaling Studies in Tokamaks		

		Friday, 21 October 2022		
		Session on Measurement of density and temperature Summary and CAEN PhD prizes		
O25	C Mazzotta	Review of SIRIO interferometer experimental results	21oct	9.00-9.20
O26	F P Orsitto	Physical basis of differences of ECE (Electron Cyclotron Emission) and Thomson scattering plasma temperature measurements in JET and impact on design of electron temperature diagnostics for Fusion Reactors	21oct	9.20-9.40
O29	G Giruzzi	A model of non-Maxwellian electron distribution for the analysis of ECE in JET discharges	21oct	9.40-10.00
O30	M Cappelli	Real-time control of JET KK3 electron temperature profiles. A preliminary study using ICRH	21oct	10.00-10.20
	Coffee		21oct	10.30-11.00
O31	G De Masi	Plasma position reflectometer in RFX-mod2: system overview, technical issues and bench tests	21oct	11.00-11.20
O27	V Vittorini	Phenomena of magnetic reconnection in high energy astrophysics	21oct	11.20-11.40
O32	D Pacella	Feasibility study for out-vessel GEM gas detectors for 1-D energy resolved X-ray imaging at ITER	21oct	11.40-12.00
O35	F P Orsitto	Summary ICFDT6	21oct	12.00-12.20
		CAEN Prizes	21oct	12.20-13.00
		End ICFDT6	21oct	13.00