ICFDT5 - 5th International Conference on Frontier in Diagnostic Technologies

3-5 October, 2018 - INFN-LNF, B. Touschek Auditorium

Tentative Program

Session	hours	Wednesday 3 Oct.	type of talk
	8.00-8.45	Registration	
Welcome	8.45-9.00	Welcome	
Imaging	9.00-9.45	T1: R. Floberghagen: Imaging the invisible parts of the Earth - ESA's Swarm mission probing the core, the magnetosphere, and nearly everything in-between.	tutorial 45min
	9.45-10.30	T2: A. Mencattini: Advance in image Analysis for biomedical application.	tutorial 45min
	10.30-11.00	Coffee	
	11.00-11.30	O1: P. F. Mathieu: Space for sustainable development	invited oral 30 min
	11.30-12.00	O3: L. Antonelli: X-ray phase contrast imaging applied to laser driven shocks	invited oral 30 min
	12.00-12.30	O4: N. Toschi : Novel contrasts and technologies in diagnostic neuroimaging	invited oral 30 min
	12.30-13.00	O5: P. Delogu: X-ray K-edge imaging with photon counting detectors and polychromatic sources.	invited oral 30 min
	13.30-14.30	Lunch	
Special session: Advanced techniques of acceleration	14.30-15.15	T3: J. Rosenzweig: Plasma based devices for acceleration, transport and diagnostics of high brightness electron beams.	tutorial 45min
	15.15-15.35	O6: A. Curcio: Emittance measurement through betatron radiation in laser-plasma accelerator.	oral 20 min
	15.35-15.55	O7: P. Craievich: The PolariX TDS: A novel X-band transverse deflection structure with variable polarization.	oral 20 min
	15.55-16.15	O8: A. Biagioni: Temperature analysis in the shock waves regime for gas-filled plasma capillaries in plasma-based accelerators.	oral 20 min
	16.15-16.45	Coffee	
	16.45-17.05	O9: M. Galimberti: Laser diagnostics for particle acceleration experiments.	oral 20 min
Fast particles	17.05-17.35	O10: M. Salewsky: Diagnostic of fast-ion energy spectra and densities in magnetized plasmas.	invited oral 30 min
	17.35-17.55	O12: F. Murtas: PIX-based detectors.	oral 20 min
	17.55-18.15	O13: G. Croci: New MPGD applications.	oral 20 min
	18.15	Session End	
Session	**hours**	**Thursday 4 Oct.**	type of talk
Satellite Meeting on Metameterials	9.00-9.45	T7: J. Pendry: Metamaterials: a new dimension in electromagntism.	tutorial 45 min
	9.45-10.05	O26: S. Cibella: Metemeterial devices based on nano gap hybrid LC microcavities.	oral 20 min
	10.05-10.25	O30: Z. Ollman: Thz metamaterials meet accelerators.	oral 20 min
	10.25-10.55	Coffee	
	10.55-11.15	O28: A. Gliozzi: Application of phononic crystals and acoustic metamaterials to the detection and imaging of nonlinear defects.	oral 20 min
	11.15-11.35	O29: F. Volpe: Frontier applications of metamaterials to magnetic confinement fusion.	oral 20 min
Fast Particles	11.35-11.55	O11: R. H. Menk: Detector challenges at (low energy) Free Electron Lasers.	oral 20 min
Diagnostics for fusion reactors	11.55-12.40	T8: M. Walsh: Diagnostics design for a nuclear fusion device.	tutorial 45 min
	12.40-13.00	O31: V. Udintsev/M. Walsh: A survey of diagnostic developments for ITER.	oral 20 min
	13.30-14.30	Lunch	
Poster Session	14.30-16.00	Poster Session	
	16.00-16.30	Coffee	
Data Mining	16.30-16.50	O17: J. Vega: Statistical learning theory for scientific applications: an overview.	oral 20 min
	16.50-17.10	O18: A. Murari: A model falsification approach to Learning in non-stationary conditions for experimental design.	oral 20 min
	17.10-17.30	O23: M.Gelfusa: Adaptive learning for prediction.	oral 20 min
	17.30-17.50	O24: T. Craciunescu: Causality detection methods for time series analysis.	oral 20 min
	17.50-18.10	O25: E. Peluso: Determining the causality horizon in synchronization experiments.	oral 20 min
Industrial Plasmas	18.10-18.30	O30: T. Andreussi: Plasma characterization in Hall thrusters by Langmuir probes.	oral 20 min
	20.00-22.00	Social Dinner	

Session	hours	Friday 5 Oct.	type of talk
Spectroscopy	9.00-9.45	T4: G. Dilecce: Laser induced fluorescence in a collisional environment: a molecular probe for rapidly changing media.	tutorial 45 min
Astrophysics	9.45-10.30	T5: Y. Evangelista: X-ray diagnostics and technologies for High Energy Astrophysics.	tutorial 45 min
	10.30-11.00	Coffee	
Spectroscopy	11.00-11.45	T6: A. De Giacomo: Nanoparticle enhanced laser induced breakdown for chemical analysis of trace elements.	tutorial 45 min
Fast events - Inertial Confinement ICF	11.45-12.15	O14: S.Pikuz: Ultra-intense X-rays in PW laser plasma - generation, transport and application to study radiation dominated and warm dense matter.	invited oral 30 min
Fast Events Inertial Confinement	12.15-12.35	O15: F. Consoli: Characterization of intense electromagnetic fields in the radiofrequency-microwave regime generated by powerful laser-matter interaction.	oral 20 min
Fast Events Inertial Confinent	12.35-12.55	O16: M. Cipriani: Spectral characterizaton by CVD diamond detectors of energetic protons from high-repetition rate laser for aneutronic nuclear fusion experiments .	oral 20 min
	13.30-14.30	Lunch	
	14.30-15.00	O31: Talk Prize Best Poster	invited oral 30 min
DTT (Divertor Test Tokamak)	15.00-15.30	O32: M. Valisa: Diagnostics for DTT in view of DEMO	invited oral 30 min
	15.30-16.00	O33: F. Taccogna: Kinetic complexity in divertor region: Insights from particle-in-cell simulations.	invited oral 30 min
	16.00-16.30	coffee	
Imaging	16.30-17.00	O2: A. Oraevsky. The latest advances in optoacoustic diagnostic imaging of cancer and image-guided interventions.	invited oral 30 min
Diagnostics for Fusion Reactors	17.00-17.20	O35: G. GalatolaTeka: Electron density measurement of Protosphera Plasma by second harmonic interferometer.	oral 20 min
	17.20-17.40	O36: F. da Silva: Modelling reflectometry diagnostics: finite-difference time-domain simulation of reflectometry in fusion plasmas.	oral 20 min
	17.40-18.00	O37: P. Varela: Design and development of the ITER plasma position reflectometry system.	oral 20 min
	18.00-18.20	O38: J. Sousa: High availability control and data acquisition for fusion experiments.	oral 20 min
	18.20-18.30	Closing Ceremony	