

16th International Reflectometry Workshop (IRW)

Monday 13 May 2024

Talks: Reflectometry - Günter-Grieger-Hörsaal (09:15 - 10:45)

-Conveners: Filipe da Silva; Roland Sabot

time	[id] title	presenter
09:15	[51] Introduction - Density measurements in fusion plasmas: reflectometry and other measurements	SABOT, Roland
09:55	[59] New density profile reconstruction method from the time delay in O and X mode reflectometry	SABOT, Roland
10:15	[23] Status of the EUROfusion Enabling Research Project Advances in real-time reflectometry plasma tracking, for next generation machines	Dr DA SILVA, Filipe

Talks: Real time systems and profile inversion - Günter-Grieger-Hörsaal (11:00 - 12:30)

-Conveners: Maylis Carrard; Jia Huang; Dirk Stieglitz

time	[id] title	presenter
11:00	[32] Real time reflectometry measurement of density profiles in WEST tokamak	Ms CARRARD, Maylis
11:30	[11] Real-time density profile inversion with deep neutral network model for X-mode polarization density profile reflectometer on EAST	Dr HUANG, Jia
12:00	[33] Bayesian O-mode profile inversion with dynamic initialisation	STIEGLITZ, Dirk

Talks: Profile systems - Günter-Grieger-Hörsaal (13:30 - 15:00)

-Conveners: Umesh Kumar; Frederic Clairet; Janmejay Buch

time	[id] title	presenter
13:30	[12] Density profile measurements from the developed FMCW Reflectometry system for Aditya-U tokamak.	Mr BUCH, Janmejay
14:00	[25] Embedded reflectometry into additional heating launchers of WEST	Dr CLAIRET, Frederic
14:30	[26] Recent advancements in Short-Pulse Reflectometry in the TCV tokamak	Dr KUMAR, Umesh

Talks: Reflectometry development on HSX - Günter-Grieger-Hörsaal (15:30 - 17:00)

-Conveners: Henrique Oliveira Miller; Michael Richardson; Xiang Han

time	[id] title	presenter
15:30	[36] Microwave reflectometry diagnostic for density profile and fluctuation measurements on Helically Symmetric eXperiment	HAN, Xiang
16:00	[45] Ongoing design of Doppler Reflectometry for use on the Helically Symmetric eXperiment	RICHARDSON, Michael
16:30	[46] Modelling of the HSX Reflectometer and Planned Doppler Reflectometer with the Ray-Tracing Code TRAVIS	OLIVEIRA MILLER, Henrique

Tuesday 14 May 2024

Talks: Theory and synthetic diagnostic development - Günter-Grieger-Hörsaal (09:00 - 10:45)

-Conveners: Kaixuan Ye; Antoine Jamann; Garrard Conway

time	[id] title	presenter
09:00	[15] 2D full-wave and 3D beam-trace modelling of Doppler reflectometry response in realistic geometry	Dr CONWAY, Garrard
09:45	[38] Development of full-wave simulation codes for synthetic profile reflectometry in EAST tokamak	YE, Kaixuan
10:15	[31] Full-wave simulations for synthetic reflectometry diagnostic development	Mr JAMANN, Antoine

Talks: Multi-channel microwave system development on EAST - Günter-Grieger-Hörsaal (11:00 - 12:30)

-Conveners: Wenxiang Shi; Liutian Gao; Gongshun Li

time	[id] title	presenter
11:00	[54] Upgrades of the five-channel tunable W-band doppler backscattering system on EAST	GAO, Liutian
11:30	[55] A ten-channel E-band Doppler backscattering system on EAST	SHI, Wenxiang
12:00	[10] Observation of Doppler shift f_D modulated by internal kink mode using conventional reflectometry on EAST tokamak	Dr LI, Gongshun

Talks: Microwave system development on HL2A/3 - Günter-Grieger-Hörsaal (13:30 - 15:00)

-Conveners: Weichu Deng; Ruihai Tong; Yu Zhou

time	[id] title	presenter
13:30	[20] A flexible Doppler backscattering system on the HL-3 tokamak	Mr ZHOU, Yu
14:00	[14] Development of 105 GHz Collective Thomson Scattering System on HL-2A	Mr DENG, Weichu
14:30	[13] A novel comb-based multi-channel microwave Doppler backward scattering diagnostic on the HL-3 tokamak	Dr TONG, Ruihai

Talks: Technology development - Günter-Grieger-Hörsaal (15:30 - 17:00)

-Conveners: Valentina Nikolaeva; Antoine Sirinelli; Yilun Zhu

time	[id] title	presenter
15:30	[39] Calibration options for ITER reflectometry systems	SIRINELLI, Antoine
16:00	[40] SPARC Edge Scanning Reflectometry Overview	Dr NIKOLAEVA, Valentina
16:30	[56] System-on-Chip Technology Application on Millimeter Wave Reflectometers	Dr ZHU, Yilun

Wednesday 15 May 2024

Talks: Intensity refractometry, Plasma density fluctuations and Turbulence - Günter-Grieger-Hörsaal (09:00 - 10:30)

-Conveners: Maria Usoltseva; Oleg Krutkin; Jason Smoniewski

time	[id] title	presenter
09:00	[35] Intensity refractometry: choosing optimal diagnostic parameters and understanding distortion in experimental data	USOLTSEVA, Maria
09:30	[18] Density fluctuation measurements with Short Pulse Reflectometry	Dr KRUTKIN, Oleg
10:00	[44] TEM turbulence in simulation and experiment with degraded quasisymmetry in the HSX stellarator	SMONIEWSKI, Jason

Talks: nT-crossphase estimation: Reflectometry and CECE - Günter-Grieger-Hörsaal (11:00 - 12:30)

-Conveners: Carsten Lechte; Gavin Weir; Branka Vanovac

time	[id] title	presenter
11:00	[30] Fullwave Simulations of Radial Correlation Doppler Reflectometry and Cross Correlation with Te Fluctuations in ASDEX Upgrade	Dr LECHTE, Carsten
11:30	[47] CECE and nT-phase measurements in ASDEX Upgrade tokamak	Dr VANOVA, Branka
12:00	[53] Correlation reflectometry on Wendelstien 7-X: correlation properties, sensitivity, and prospects for nT-crossphase measurements	Dr WEIR, Gavin

Talks: Reflectometry on W7-X - Günter-Grieger-Hörsaal (13:30 - 15:00)

-Conveners: Emmanouil Maragkoudakis; Andreas Krämer-Flecken; Thomas Windisch

time	[id] title	presenter
13:30	[19] The Rotation of Quasi coherent Modes in W7-X	Dr KRÄMER-FLECKEN, Andreas
14:00	[37] Doppler-reflectometry at W7-X: Initial results from the campaign OP2.1	WINDISCH, Thomas
14:30	[42] Characterization of DR profiles for various Wendelstein 7-X scenarios	MARAGKOUDAKIS, Emmanouil

Talks: Wendelstein 7-X: ECRH and radiometry - Günter-Grieger-Hörsaal (15:30 - 16:30)

-Conveners: Torsten Stange; Neha Chaudhary

time	[id] title	presenter
15:30	[57] The quasi-optical ECRH system of Wendelstein 7-X	Dr STANGE, Torsten
16:00	[48] ECE diagnostics at W7-X stellarator	Dr CHAUDHARY, Neha

Thursday 16 May 2024

Talks: Phased array antennas and wavenumber measurements - Günter-Grieger-Hörsaal (09:00 - 10:30)

-Conveners: Tokihiko Tokuzawa; Laure Vermare; Seong-Heon Seo

time	[id] title	presenter
09:00	[52] Design of a Doppler reflectometer based on frequency steering phased array antenna	Dr SEO, Seong-Heon
09:30	[41] Wavenumber spectrum $S(k, t, r)$ measurements using a frequency comb Doppler reflectometer in combination with a phased array antenna	Dr TOKUZAWA, T
10:00	[17] Flow and phase velocity of turbulence in magnetized fusion plasmas	Dr VERMARE, Laure

Talks: Edge flows and L-H Transitions - Günter-Grieger-Hörsaal (11:00 - 12:30)

-Conveners: José Vicente; Sascha Rienäcker; Ondrej Grover

time	[id] title	presenter
11:00	[34] Edge Flows Studies via Doppler Backscattering on the TCV Tokamak	RIENÄCKER, Sascha
11:30	[29] Probing ELM Triggers in ASDEX Upgrade with Conventional Reflectometry	Dr VICENTE, José
12:00	[43] Innovative Doppler backscattering spectra analysis methods applied to comb reflectometer measurements in ASDEX Upgrade	GROVER, Ondrej

Talks: Plasma position reflectometry (PPR) - Günter-Grieger-Hörsaal (13:30 - 15:30)

-Conveners: Stéphane Heuraux; Jorge Santos; Filipe da Silva

time	[id] title	presenter
13:30	[22] Integrated Microwave Diagnostic Design Workflow - a PPR antenna design use case	Dr SANTOS, Jorge
14:00	[27] Synthetic \square wave tomograph based on DEMO Plasma Positioning Reflectometer	Prof. HEURAUX, Stéphane
14:30	[24] Confronting simulations of the performance of an equatorial HFS PPR for DTT obtained using 2D and 3D synthetic diagnostics	Dr DA SILVA, Filipe
15:00	[60] A novel comb-based multi-channel microwave Doppler backward scattering diagnostic on the HL-3 tokamak	Dr TONG, Ruihai

Talks: Closing session, Coffee and Cakes - Günter-Grieger-Hörsaal (16:00 - 17:30)

time	[id] title	presenter
16:00	[61] Conference review and Announcements from the scientific committee	