



Minutes of the TJ-II Access Committee virtual meeting on January 23, 2023, 9:30 CET.

In attendance:

Andreas Dinklage (Max-Planck IPP), Carlos Silva (IPFN-IST), Monica Spolaore (Consorzio RFX/CNR-ISTP), Hiromi Takahashi (NIFS) and Eleonora Viezzer (Univ. Seville) as members of the TJ-II Access Committee.

and

Arturo Alonso, Teresa Estrada, Kieran McCarthy as TJ-II representatives (CIEMAT).

Agenda:

- 1) Presentation of the outcome of the Call for Proposals and the experimental Session Plan for the TJ-II Spring 2024 campaign.
- 2) Discussion of the session plan for approval by the Access Committee.

Minutes:

1) Presentation of the outcome of the Call for Proposals and the experimental Session Plan for the TJ-II Spring 2024 campaign.

AA welcomes the Access Committee members and TJ-II representatives and presents the agenda. AA summarizes the process and results of the Call for Proposals (CfP).

- CfP sent out Nov. 10th and distributed through the Stellarator Heliotron Coordinated Working Group distribution list.
- Closed on Dec. 1st. Accepting post-deadline proposals thereafter.
- The CfP was advertised at the W7-X Physics Meeting.
- First preparatory plasmas run in Dec.
- Campaign starts on Feb 12 and runs for 15 weeks (39 + 3 session).
- The results of the CfP were 41 proposal received, of which 9 from external proponents, requesting a total of 109 sessions.

2) Discussion of the session plan for approval by the Access Committee.

AA presents the distribution of proposals in the Session Plan. All proposals have been allocated, either as primary or secondary proposals, in at least one experimental session. External proposals are distributed in 17 sessions out of the 39 sessions available before the three days reserved for contingency.

The Access Committee (AC) has series of technical questions that are answered by the TJ-II representatives. Relevant to these minutes are:

- The recommendation by one of the AC members (AD) to continue to use the international collaboration network provided by the Stellarator/Heliotron Coordinated Working Group (under the auspices of the IEA Technology Collaboration Programme) to articulate inter-machine studies of critical physics and technology aspects of Stellarator/Heliotrons.

The Access Committee approves the distribution of experimental sessions as in Table 1.



Table 1. List of proposals and number of sessions assigned in the Session Plan

Title	Main proponent	Main proponent's affiliation	Sessions as primary proposal	Sessions as secondary proposal
AEs model validation: measuring iota profile in NBI plasmas	Cappa, Álvaro	CIEMAT	1	1
Checking the alignment of ECRH beams using power modulation	Cappa, Álvaro	CIEMAT	2	0
Characterization of energy transport in TJ-II: Dependence on thermodynamic gradients and link to turbulence measurements.	Carralero, Daniel	CIEMAT	2	1
Isotope effect on pellet-induced enhanced confinement in TJ-II	I. García-Cortés	CIEMAT	1	1
Impact of rationals on Pellet Enhanced Confinement at TJ-II	García-Cortés, Isabel	CIEMAT	2	0
Turbulence characterization of pellet-induced enhanced confinement phase at TJII	Isabel García-Cortés	CIEMAT	0	3
Light-impurity powder injection in TJ-II plasma edge	Alfonso de Castro Calles	CIEMAT	1	1
Spectroscopic Gas Puff Imaging edge plasma characterisation	de la Cal, Eduardo	CIEMAT	2	1
Characterization and modelling of the parallel dynamics of impurity ions with parallel and anti-parallel collinear NBI injection	Jaime de la Riva	CIEMAT	1	1
Commissioning Analyzer B, HIBP2	José Luis de Pablos	CIEMAT	0	2
External control of Zonal Flows	Jose Luis de Pablos	CIEMAT	1	1
NBI1 vs. NBI2 heated plasma comparison: impact of radial electric field and turbulence on impurity concentration and plasma performance	Estrada, Teresa	CIEMAT	2	2
Study of pre- and post-pellet injection phases with a Langmuir probe on the TJ II stellarator	Ivanova, Pavlina	Institute of Electronics, Bulgarian Academy of Sciences	0	2
Investigation of pellet cloud dynamics in TJ-II in the presence of magnetic island using fast-framing video observation	Kocsis, Gabor	Centre for Energy Research	2	1
Commissioning of the spectral scanning system	López-Miranda, Belén	CIEMAT	0	2
Investigation of the impact of the fast-ion losses induced by pellet injection on the density limit in TJ-II plasmas	López-Miranda, Belén	CIEMAT	1	1
Study of the influence of fast-ion losses induced by AEs in pure NBI-heated & combined ECR and NBI plasmas.	López-miranda, Belén	CIEMAT	0	2
Study of the isotope effect into fast-ion losses in NBI-heated plasmas in the TJ-II stellarator.	López-Miranda, Belén	CIEMAT	0	1
Investigation of the impact of LBO impurity injection immediately after cryogenic	López-Miranda, Belén	CIEMAT	0	2



hydrogen pellet injection (PI) on confinement time in the TJ-II plasmas				
Investigation of the impact of LBO impurity injection immediately after cryogenic deuterium pellet injection (PI) on confinement time in the TJ-II plasmas	López-Miranda, Belén	CIEMAT	1	0
Commissioning of Pellet Injector for Deuterium Pellets	Kieran McCarthy	Ciemat	1	1
The influence of pellet start-time and separation times on improved performance in TJ-II NBI heated plasmas	Kieran McCarthy	Ciemat	2	0
Impurity-hole plasmas in TJ-II	Daniel Medina Roque	CIEMAT	1	1
Assessment of the impact of background hydrogen isotope on impurity behaviour in TJ-II	Daniel Medina Roque	CIEMAT	0	1
Impurity confinement dependence on TJ-II plasma temperature gradient by injecting different Z tracers for comparison with LHD	N. Tamura	NIFS (Japan)	1	1
TESPEL injections into the pellet-induced enhanced confinement phase of NBI plasmas to evaluate core impurity confinement during this phase	Daniel Medina-Roque	CIEMAT	0	2
Impact of plasma current on L-H transitions at TJ-II	van Milligen, Boudewijn	CIEMAT	2	0
Internal density measurements of plasmoid in hydrogen pellet	Motojima., Gen	NIFS	0	4
Combining retarding-field energy analyzer and electrostatic probes measurements, an approach to measure the phase relation between density and temperature fluctuations using RFA	Nedzel'skiy, Igor	IPFN	2	0
Injection of low-Z elements for turbulence reduction and confinement improvement for comparison with W7-X and LHD.	Federico Nespoli	PPPL	1	1
Commissioning of fast camera for LBO diagnostic	Panadero, Nerea	CIEMAT	1	0
Commissioning of the new fast camera for spectroscopic gas puff imaging (SGPI) and pellet injection (PI)	Panadero, Nerea	CIEMAT	0	1
Investigation of the impact of impurity and cryogenic deuterium pellet injection on the density limit in TJ-II plasmas	Panadero, Nerea	CIEMAT	0	2
Investigation of the impact of impurity and cryogenic hydrogen pellet injection on the density limit in TJ-II plasmas	Panadero, Nerea	CIEMAT	1	1
Studies of deuterium pellet plasmoid drift in different magnetic configurations	Panadero, Nerea	CIEMAT	2	1
Continuation of studies of hydrogen pellet plasmoid drift in different magnetic configurations	Panadero, Nerea	CIEMAT	2	2
Assessment of the influence of pellet fuelling efficiency on the magnetic well in the TJ-II stellarator	Panadero, Nerea	CIEMAT	2	0



Study on impurity content, radiative collapses and turbulence characterization in the vicinity of density limit in TJ-II	Salcuni Claudia	CIEMAT	0	3
Origin of SOL turbulence	Wu	Southwestern Institute of Physics	1	0
Particle and energy propagation with edge plasma polarization	Xiao, Chijin	University of Saskatchewan, Canada	1	1
Self-organization and AEs marginal stability: a research proposal for TJ-II	Hidalgo, Carlos	CIEMAT	0	1