



Minutes TJ-II access committee
Madrid, October 20th 2021

Members present by video-conference:

Dolores Calzada (Córdoba University)

Carlos Silva (IPFN, Lisbon)

Monica Spolaore (Consorzio RFX, Padova)

Teresa Estrada, Kieran McCarthy, Carlos Hidalgo (CIEMAT)

Carlos Hidalgo welcomed all participants and explained that:

- ✓ The OLMAT facility, aimed at testing LM prototypes under DEMO-relevant heat loads, has been installed with a successful commissioning during the spring 2021 experimental campaign. Its final design guarantees its compatibility with TJ-II plasma operation.
- ✓ The TJ-II fall 2021 experimental campaign has received proposals covering a wide range of relevant research goals that are fully in line with the priorities of the Eurofusion (stellarator) work programme. External proposals are led by collaborators from Europe, Russia, Ukraine, Japan and US [see http://fusionwiki.ciemat.es/wiki/TJ-II:Experimental_proposals].
- ✓ The foreseen number of TJ-II experimental sessions for the fall 2021 campaign [October - November] is estimated at 12. The total number of requested sessions [October 2021 call] is about 8 sessions. Proposals not fully developed in the 2021 campaign will be postponed to 2022.
- ✓ Some proposals, which would require the installation and operation of specific diagnostics in the TJ-II facility [e.g. Retarding Field Analyzer proposed by IST / Lisbon], are not feasible for the 2021 campaign. Therefore these proposals have been shifted to the 2022 campaign.

Comments by committee members:

Monica Spolaore asked about the planning for 2022 considering the operation of both TJ-II and OLMAT facilities. Carlos Hidalgo explained that this issue is still under discussion. Teresa Estrada pointed out that an option would be to have a long winter/spring campaign for TJ-II followed by an autumn campaign for OLMAT. Carlos Silva acknowledged the importance of getting international collaborators back to on-site for participation in the TJ-II research programme. Dolores Calzada and Carlos Hidalgo highlighted the importance of promoting further collaboration between LNF / Ciemat and university scale research groups. Kieran McCarthy explained that IAEA joint experiments have been postponed until April 2022. This schedule has already been approved by IAEA. Kieran McCarthy asked about priorities in case of lost experimental days. Carlos Hidalgo explained that proposals made by visiting researchers would be given priority when reallocating days.



Proposals were discussed and the research planning approved by the committee. It was agreed to allocate 7 sessions [table 1] to external users and to postpone the further development of the research programme towards the next 2022 experimental campaign.

External proposal for the TJ-II 2021 campaigns	Principal Investigator	Funding source	Sessions awarded Fall 2021 campaign
<p>TJ-II: Turbulent ExB transport studies using HIBP and edge probes</p> <p>Collaboration Kurchatov Institute (Russia) Kharkov Institute (Ukraine) UWV (US)</p>	<p>A Melnikov (Kurchatov Institute, Moscow, Russia)</p> <p>O. Kozachek (Kharkov Institute of Technology, Ukraine)</p> <p>Mark Koepke, (UWV, USA)</p> <p>M.A. Ochando, Igor Voldiner (Ciemat)</p>	<p>Eurofusion WPS1</p> <p>LNF</p>	2
<p>TJ-II: Two dimensional distribution of plasma potential and density</p> <p>Collaboration Kurchatov Institute (Russia) Kharkov Institute (Ukraine)</p>	<p>A Melnikov (Kurchatov Institute, Moscow, Russia)</p> <p>O. Kozachek (Kharkov Institute of Technology, Ukraine)</p> <p>J.L. de Pablos (Ciemat)</p>	<p>Eurofusion WPS1</p> <p>LNF</p>	2
<p>TJ-II: Pellet induced Enhanced Confinement: the role of Er and turbulence /</p> <p>TJ-II: Impurity injection with TESPEL in TJ-II stellarator /</p> <p>Collaboration Kurchatov Institute (Russia) Kharkov Institute (Ukraine) NIFS</p>	<p>A Melnikov (Kurchatov Institute, Moscow, Russia)</p> <p>O. Kozachek (Kharkov Institute of Technology, Ukraine)</p> <p>N. Tamura (NIFS, Japan)</p> <p>I. García-Cortés (Ciemat) Kieran McCarthy (Ciemat)</p>		2
<p>TJ-II:</p>	<p>P.Diamond (UCSD, USA)</p>	<p>Eurofusion</p>	1



<p>On_the_physics_of_the_density_limit</p> <p>Collaboration UCSD (US), NIFS (Japan), Kyoto Univ. (Japan)</p>	<p>S.Takahashi (NIFS, Japan)</p> <p>S.Ohshima (Kyoto Univ., Japan)</p> <p>Marian Ochoando, Ciemat</p>	<p>WPS1</p> <p>LNF</p>	
<p>TJ-II: Influence of magnetic configuration on filament dynamics</p> <p>Collaboration IPP (Germany)</p>	<p>Daniel Carralero (CIEMAT)</p> <p>Gustavo Grenfell (IPP)</p>	<p>Eurofusion WPS1</p> <p>LNF</p>	<p>Further exp. postponed to 2022</p>
<p>TJ-II: Fast particles induced transport: ExB transport and asymmetries</p> <p>Collaboration Aix Marseille University (France)</p>	<p>David Zarzoso (Aix Marseille University)</p>	<p>Eurofusion WPS1</p> <p>LNF</p>	<p>Further exp. postponed to 2022</p>
<p>TJ-II: Infuence of AEs on ExB transport: role of phase shift effects</p> <p>Collaboration Aix Marseille University (France) IPP- Prague (CZ)</p>	<p>Samuel Mazzi (Aix Marseille Univ)</p> <p>Filip Papausek (IPP Prague)</p> <p>Carlos Hidalgo (Ciemat)</p>	<p>Eurofusion WPS1</p> <p>LNF</p>	<p>Further exp. postponed to 2022</p>
<p>TJ-II: Physics of transport decoupling, an approach to measure the phase relation between density and temperature fluctuations</p> <p>Collaboration [2020] IST (Portugal) UWV (USA)</p>	<p>Igor Nedzelskiy (IST, Portugal)</p> <p>Mark Koepke (UWV, USA)</p>		<p>Further exp. [RFA] postponed to 2022</p>
		TOTAL	7 / 12

Table 1.