

# Program - FY2021 LHD Research Forum

**Monday, July 12, 2021**

JP	EU	US					Presen + Q&A		
JST	CEST	EDT	CDT	PDT					
15:20	8:20	2:20	1:20	23:20	K. Ida	NIFS	5	<b>Welcome address</b>	
15:25	8:25	2:25	1:25	23:25	N. Tamura	NIFS	5	<b>Request from Organizer</b>	
<b>Instability</b>									
15:30	8:30	2:30	1:30	23:30	K. Ida	NIFS	4 + 4	<ul style="list-style-type: none"> <li>· Observation of Landau damping</li> </ul>	
15:40	8:40	2:40	1:40	23:40	K. Nagaoka	NIFS	4 + 4	<ul style="list-style-type: none"> <li>· Low field plasma experiment for energetic particle confinement study</li> </ul>	
15:50	8:50	2:50	1:50	23:50	K. Mukai	NIFS	4 + 4	<ul style="list-style-type: none"> <li>· Investigation of divertor detachment using superimposed impurity seeding</li> </ul>	
					S. Ito (proposed by K. Watanabe(NIFS))	Nagoya Univ.	4 + 4	<ul style="list-style-type: none"> <li>· MHD instability suppression by RMP field</li> </ul>	
16:00	9:00	3:00	2:00	0:00	K. Nagasaki	Kyoto University	4 + 4	<ul style="list-style-type: none"> <li>· Active Control of Energetic-Particle-Driven MHD Instabilities by ECH/ECCD</li> </ul>	
16:10	9:10	3:10	2:10	0:10	K. Watanabe (on behalf of O. Mitarai)	NIFS (Institute for Advanced Fusion and Physics Education)	4 + 4	<ul style="list-style-type: none"> <li>· Comparative experiments of Bootstrap current in the 1/new and plateau regime in LHD</li> </ul>	
16:20	9:20	3:20	2:20	0:20	K. Toi	Professor Emeritus of NIFS	4 + 4	<ul style="list-style-type: none"> <li>· Demonstration of enhanced energy channeling from energetic ions to bulk ions via energetic-ion-driven geodesic acoustic modes in reversed magnetic shear plasmas of LHD</li> </ul>	
16:30	9:30	3:30	2:30	0:30	H. Nuga	NIFS	10 + 8	<ul style="list-style-type: none"> <li>· Experimental analysis of the non-linear Coulomb collision effect</li> <li>· Validation of neutral beam current drive in LHD for numerical estimation</li> <li>· Investigation of the effect of anisotropic plasma pressure on MHD equilibrium in the three-dimensional magnetic configuration</li> </ul>	
17:00	10:00	4:00	3:00	1:00	<b>Break</b>				
17:20	10:20	4:20	3:20	1:20	H. Matsuura	Kyushu University	4 + 4	<ul style="list-style-type: none"> <li>· Observation of knock-on tail formation using DD neutrons and 6LiD <math>\gamma</math>-rays</li> </ul>	
17:30	10:30	4:30	3:30	1:30	S. Kobayashi	IAE, Kyoto Univ.	4 + 4	<ul style="list-style-type: none"> <li>· Development of plasma initiation technique for low magnetic field plasma experiments</li> </ul>	
17:40	10:40	4:40	3:40	1:40	T. Yokoyama	The University of Tokyo	4 + 4	<ul style="list-style-type: none"> <li>· Prediction and avoidance of radiative collapse to achieve high-density plasma</li> </ul>	
17:50	10:50	4:50	3:50	1:50	H. Yamada	The University of Tokyo	4 + 4	<ul style="list-style-type: none"> <li>· Prediction and maintenance of detached plasma by data-driven approach</li> </ul>	
18:00	11:00	5:00	4:00	2:00	J. Jo	Korea Institute of Fusion Energy	4 + 4	<ul style="list-style-type: none"> <li>· Effect of phase-space distribution on Triton confinement</li> </ul>	
18:10	11:10	5:10	4:10	2:10	S. Sharapov	Culham Science Centre	4 + 4	<ul style="list-style-type: none"> <li>· ECRH/ ECCD effects on energetic particle-driven Alfvén eigenmodes</li> </ul>	
18:20	11:20	5:20	4:20	2:20	J. Varela	University Carlos III Madrid	4 + 4	<ul style="list-style-type: none"> <li>· EFFECT OF THE NBCD ON THE STABILITY OF PRESSURE GRADIENT DRIVEN MODES AND ALFVEN MODES IN LHD HIGH BETA OPERATIONS</li> </ul>	
18:30	11:30	5:30	4:30	2:30	A. Knieps	Forschungszentru m Juelich	4 + 4	<ul style="list-style-type: none"> <li>· Experimental analysis of beta-driven stochasticization in the LHD helical divertor</li> </ul>	
18:40	11:40	5:40	4:40	2:40	<b>Adjourn</b>				

# Program - FY2021 LHD Research Forum

**Tuesday, July 13, 2021**

JP	EU	US			Present + Q&A
JST	CEST	EDT	CDT	PDT	Instability
8:30	1:30	19:30	18:30	16:30	J. Lestz University of California, Irvine 4 + 4 · Connections between ion cyclotron range instabilities in space, stellarator and tokamak plasmas
8:40	1:40	19:40	18:40	16:40	W. Heidbrink UC Irvine 7 + 6 · Fast-ion transport in MHD-quiescent plasmas · Excellent documentation of fast-ion transport by Alfvén instabilities
8:55	1:55	19:55	18:55	16:55	M. Zarnstorff PPPL 4 + 4 · Confinement improvement and turbulence suppression in high beta plasmas with impurity powder injection.
9:05	2:05	20:05	19:05	17:05	K. Ogawa NIFS 4 + 4 · Energetic ion transport due to toroidal Alfvén eigenmode in deuterium plasma in LHD and HL-2A/2M
9:15	2:15	20:15	19:15	17:15	H. Igami NIFS 7 + 6 · Observation of whistler frequency waves excited by nonlinear wave-wave coupling during abrupt bursting events · OXB heating by 115.5GHz at the strongly Doppler-shifted ECR in the SDC plasma
9:30	2:30	20:30	19:30	17:30	S. Kamio NIFS 10 + 8 · Hydrogen and deuterium beam ion transport due to toroidal Alfvén eigenmode · Investigation of ion heating mechanism during EGAM excitation caused by fast ion · Study of the fast ion confinement physics in helical device
9:50	2:50	20:50	19:50	17:50	<b>Break</b>
10:10	3:10	21:10	20:10	18:10	M. Kobayashi NIFS 7 + 6 · High radiation fraction detachment with RMP application · Feedback control detachment with ECRH and impurity gas puff
10:25	3:25	21:25	20:25	18:25	S. Ohdachi NIFS 7 + 6 · Corrupt mechanism of CDC events · p-11B reaction using boron dropper
10:40	3:40	21:40	20:40	18:40	N. Kenmochi NIFS 4 + 4 · Isotope mass effects on sustainment of e-ITB plasma · Study of plasma termination induced by different Z impurities at different masses and its recovery by adding ECH
10:50	3:50	21:50	20:50	18:50	N. Tamura NIFS 4 + 4 · Investigating EBW heating characteristics via X-B mode conversion from high field side injection · Relationship between plasma flow and transition to
11:00	4:00	22:00	21:00	19:00	R. Yanai NIFS 4 + 4 · MHD instability with collapse in high density LHD plasmas · Effect of MHD instability with different mode structure on magnetic topology
11:10	4:10	22:10	21:10	19:10	Y. Takemura NIFS 10 + 8 · Sawtooth-like oscillation in high aspect ratio configuration of LHD
11:30	4:30	22:30	21:30	19:30	<b>Lunch</b>
13:30	6:30	0:30	23:30	21:30	R. Seki NIFS 4 + 4 · Measurement of neutron emission rate and fast ion in ICRF 2nd deuteron heating.
13:40	6:40	0:40	23:40	21:40	S. Sangaroon NIFS 4 + 4 · Study of velocity distribution of neutral beam and ion cyclotron range of frequency tail ions using the compact neutron emission spectrometer
13:50	6:50	0:50	23:50	21:50	S. Masuzaki NIFS 4 + 4 · Investigation of asymmetry of divertor particle and heat fluxes profiles
14:00	7:00	1:00	0:00	22:00	T. Seki NIFS 4 + 4 · Acceleration of NBI deuterium beam ions by ICRF second harmonic heating
14:10	7:10	1:10	0:10	22:10	T. Tokuzawa NIFS 4 + 4 · Observation of spatial structure change in the plasma edge during L-H mode transition
14:20	7:20	1:20	0:20	22:20	T. Tsujimura NIFS 4 + 4 · Observation of the parametric decay instability excited by mode-converted vortex EC waves
14:30	7:30	1:30	0:30	22:30	Y. Yoshimura NIFS 4 + 4 · Generation of high energy electrons by 3rd harmonic 116GHz wave coupled with 2nd harmonic heating by 77GHz wave

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14:40	7:40	1:40	0:40	22:40	Y. Fujiwara	NIFS	4 + 4	<ul style="list-style-type: none"> <li>· Effect of Electron Temperature on Fast-ion Distribution with Fast-ion D alpha diagnostic</li> </ul>
14:50	7:50	1:50	0:50	22:50	Y. Suzuki	NIFS	7 + 6	<ul style="list-style-type: none"> <li>· Impacts of rational surface on L-H transition in high-beta plasma</li> <li>· Study of topological bifurcation</li> </ul>
15:05	8:05	2:05	1:05	23:05	H. Thomsen	IPP	4 + 4	<ul style="list-style-type: none"> <li>· rotational transfor dependency of CDCs</li> </ul>

15:15	8:15	2:15	1:15	23:15	<b>Break</b>
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## Spectroscopy

15:35	8:35	2:35	1:35	23:35	M. Goto	NIFS	7 + 6	<ul style="list-style-type: none"> <li>· Doppler free spectroscopy for the neutral penetration profile measurement</li> <li>· Polarization spectroscopy for the study of anisotropy in the electron velocity distribution function</li> </ul>
15:50	8:50	2:50	1:50	23:50	B. Li	Lanzhou University	4 + 4	<ul style="list-style-type: none"> <li>· Search on magnetic induced electric dipole transition using LHD</li> </ul>
16:00	9:00	3:00	2:00	0:00	F. Ding	ASIPP	4 + 4	<ul style="list-style-type: none"> <li>· The impact of divertor configuration on inward impurity transport</li> </ul>
16:10	9:10	3:10	2:10	0:10	V. Winters	Max-Planck-Institut für Plasmaphysik	4 + 4	<ul style="list-style-type: none"> <li>· Ionization mean free path (Z) dependence of impurity retention in the ergodic SOL of LHD</li> </ul>
16:20	9:20	3:20	2:20	0:20	H. Yamaguchi	ISAS/JAXA	4 + 4	<ul style="list-style-type: none"> <li>· Establishing atomic database of L-shell transitions of the Fe-peak elements with LHD</li> </ul>
16:30	9:30	3:30	2:30	0:30	R. Sakamoto	NIFS	4 + 4	<ul style="list-style-type: none"> <li>· Dynamic behavior of hydrogen pellet ablation and homogenization</li> </ul>
16:40	9:40	3:40	2:40	0:40	J. Romazanov	FZJ IEK-4	4 + 4	<ul style="list-style-type: none"> <li>· Carbon impurity erosion and transport analysis and modelling with ERO2.0</li> </ul>

16:50	9:50	3:50	2:50	0:50	<b>Break</b>
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17:10	10:10	4:10	3:10	1:10	M. Kubkowska	IPPLM	4 + 4	<ul style="list-style-type: none"> <li>· Impurity transport study in LHD D/H plasmas using VUV spectroscopy in experiment with TESPEL injection</li> </ul>
17:20	10:20	4:20	3:20	1:20	N. Panadero	Ciemat	4 + 4	<ul style="list-style-type: none"> <li>· Analysis of pellet injection in different plasma scenarios for code validation</li> </ul>
17:30	10:30	4:30	3:30	1:30	R. Bussiahn	Max-Planck-Institut für Plasmaphysik	4 + 4	<ul style="list-style-type: none"> <li>· Multi-tracer Impurity transport studies by TESPEL injections into multi-ion plasmas</li> </ul>
17:40	10:40	4:40	3:40	1:40	S. Brezinsek	FZJ	7 + 6	<ul style="list-style-type: none"> <li>· Study of W erosion, transport, deposition and screeing in LHD by emission spectroscopy on neutral and low ionising W transitions</li> <li>· Study of deuterium molecular band emission in LHD: excited and ground state population as function of divertor conditions</li> </ul>
17:55	10:55	4:55	3:55	1:55	T. Fornal	IPPLM	4 + 4	<ul style="list-style-type: none"> <li>· Light impurity transport studies in D/H plasmas at LHD using VUV spectroscopy.</li> </ul>

18:05	11:05	5:05	4:05	2:05	<b>Adjourn</b>
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# Program - FY2021 LHD Research Forum

**Wednesday, July 14, 2021**

JP	EU	US					Presen + Q&A
JST	CEST	EDT	CDT	PDT	Spectroscopy		
9:00	2:00	20:00	19:00	17:00	C. M. Muscatello	General Atomics	4 + 4
9:10	2:10	20:10	19:10	17:10	C. Suzuki	NIFS	4 + 4
9:20	2:20	20:20	19:20	17:20	F. Koike	Sophia University	4 + 4
9:30	2:30	20:30	19:30	17:30	H. Hara	NAOJ	4 + 4
9:40	2:40	20:40	19:40	17:40	A. Matsuyama	QST	4 + 4
9:50	2:50	20:50	19:50	17:50		<b>Break</b>	
10:10	3:10	21:10	20:10	18:10	T. Oishi	NIFS	4 + 4
10:20	3:20	21:20	20:20	18:20	I. Murakami	NIFS	4 + 4
10:30	3:30	21:30	20:30	18:30	D. Kato	NIFS	7 + 6
10:45	3:45	21:45	20:45	18:45	T. Kawate	NIFS	7 + 6
11:00	4:00	22:00	21:00	19:00	H. Igami	NIFS	4 + 4
11:10	4:10	22:10	21:10	19:10	H. Funaba	NIFS	4 + 4
11:20	4:20	22:20	21:20	19:20	Y. Fujiwara	NIFS	4 + 4
11:30	4:30	22:30	21:30	19:30		<b>Lunch</b>	
					Spectroscopy		
13:30	6:30	0:30	23:30	21:30	S. Masuzaki	NIFS	4 + 4
13:40	6:40	0:40	23:40	21:40	M. Zhao	NIFS	4 + 4
13:50	6:50	0:50	23:50	21:50	Y. Kawamoto	NIFS	4 + 4
14:00	7:00	1:00	0:00	22:00	S. Morita	NIFS	4 + 4
					<b>Turbulence</b>		
14:10	7:10	1:10	0:10	22:10	R. Yanai	NIFS	4 + 4
14:20	7:20	1:20	0:20	22:20	C. Moon	Kyushu Univ.	4 + 4
14:30	7:30	1:30	0:30	22:30	S. Inagaki	Kyushu Univ.	4 + 4
14:40	7:40	1:40	0:40	22:40	N. Kenmochi	NIFS	7 + 6
14:55	7:55	1:55	0:55	22:55		<b>Break</b>	
15:15	8:15	2:15	1:15	23:15	T. Kobayashi	NIFS	10 + 8

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**Wednesday, July 14, 2021**

15:35	8:35	2:35	1:35	23:35	S. Nishimoto	Nagoya University	4 + 4	<ul style="list-style-type: none"> <li>· Verification of the effect of magnetic field geometry on zonal flow in 3D confined configuration</li> </ul>
15:45	8:45	2:45	1:45	23:45	H. Wenqing	SOKENDAI	4 + 4	<ul style="list-style-type: none"> <li>· Measurement of high-frequency harmonic plasma density fluctuations with mode L-H mode transition using beam emission spectroscopy</li> </ul>
15:55	8:55	2:55	1:55	23:55	M. Yoshinuma	NIFS	4 + 4	<ul style="list-style-type: none"> <li>· Plasma behaviors at the boundary of the transition to the High Ion Temperature discharge</li> </ul>
16:05	9:05	3:05	2:05	0:05	H. Takahashi	NIFS	4 + 4	<ul style="list-style-type: none"> <li>· Investigation of Ti increase with high Z impurity in high Te/Ti condition</li> </ul>
16:15	9:15	3:15	2:15	0:15	N. Tamura	NIFS	13 + 10	<ul style="list-style-type: none"> <li>· Robustness assessment of methods to prevent an impurity accumulation</li> <li>· Study of the interaction between neoclassical and turbulent transport in terms of impurity transport</li> <li>· Investigation of the detailed spatial structure of impurity transport</li> <li>· Effect of additional perturbations on the nonlocal transport phenomenon</li> </ul>
<b>16:40</b>	9:40	3:40	2:40	0:40		<b>Break</b>		
17:00	10:00	4:00	3:00	1:00	C. Hidalgo	Ciemat	7 + 6	<ul style="list-style-type: none"> <li>· On the influence of Alfvén Eigenmodes in radial electric fields and transport in LHD</li> <li>· On the physics of the density limit: turbulence spreading and SOL width</li> </ul>
17:15	10:15	4:15	3:15	1:15	A. Alonso	CIEMAT	4 + 4	<ul style="list-style-type: none"> <li>· Degradation of confinement in LHD and its relation to electromagnetic turbulence when approaching reactor-relevant thermal and fast-particle betas.</li> </ul>
17:25	10:25	4:25	3:25	1:25	D. Carralero	CIEMAT	4 + 4	<ul style="list-style-type: none"> <li>· Interstellarator characterization of core turbulence during enhanced performance regimes</li> </ul>
17:35	10:35	4:35	3:35	1:35	F. Nespoli	PPPL	4 + 4	<ul style="list-style-type: none"> <li>· Turbulence suppression and confinement improvement with boron powder injection</li> </ul>
17:45	10:45	4:45	3:45	1:45	M. Beurskens	Max-Planck-Institut für Plasmaphysik	4 + 4	<ul style="list-style-type: none"> <li>· Ion turbulent transport and Ti clamping study in electron-heated plasmas with varying degree of neoclassical optimization in LHD compared to W7-X</li> </ul>
<b>17:55</b>	10:55	4:55	3:55	1:55		<b>Adjourn</b>		

# Program - FY2021 LHD Research Forum

**Thursday, July 15, 2021**

JP	EU	US				Presen + Q&A		
JST	CEST	EDT	CDT	PDT	Turbulence			
9:00	2:00	20:00	19:00	17:00	K. Tanaka	NIFS	13 + 10	<ul style="list-style-type: none"> <li>Overcome of Ti clumping by reducing turbulence</li> <li>Configuration dependence of anomalous transport from W7X and LHD comparison experiments</li> <li>Interaction between turbulence and fast ion</li> <li>Turbulence response in ITB formation</li> </ul>
9:25	2:25	20:25	19:25	17:25	M. Nishiura	NIFS	10 + 8	<ul style="list-style-type: none"> <li>Perpendicular injection of EC beam from 1.5UO</li> <li>Core and edge turbulence in modulated ECH</li> <li>77, 154, and 300 GHz Collective Thomson scattering (CTS) diagnostics for bulk and fast ion.</li> <li>Velocity and spatial profiles</li> </ul>
9:45	2:45	20:45	19:45	17:45	M. Kobayashi	NIFS	4 + 4	<ul style="list-style-type: none"> <li>Effects of hydrogen isotope, edge magnetic field structure and impurity on turbulence spreading</li> </ul>
<b>9:55 2:55 20:55 19:55 17:55</b>						<b>Break</b>		
10:15	3:15	21:15	20:15	18:15	T. Kinoshita	Kyushu university	4 + 4	<ul style="list-style-type: none"> <li>Non linearity of transport and turbulence in mixture plasma</li> </ul>
10:25	3:25	21:25	20:25	18:25	I. Yamada	NIFS	4 + 4	<ul style="list-style-type: none"> <li>Study of the electron temperature anisotropy by using the LHD Thomson scattering system</li> </ul>
10:35	3:35	21:35	20:35	18:35	H. Igami	NIFS	4 + 4	<ul style="list-style-type: none"> <li>Heat transport hysteresis with/without e-ITB during the peripheral 1st X-mode MECH</li> </ul>
10:45	3:45	21:45	20:45	18:45	T. Tsujimura	NIFS	4 + 4	<ul style="list-style-type: none"> <li>Non-diffusive counter-gradient electron thermal transport and its turbulence properties</li> </ul>
10:55	3:55	21:55	20:55	18:55	J. Cheng	Southwest Jiaotong University	4 + 4	<ul style="list-style-type: none"> <li>Isotope effects on plasma confinement properties and nonlinear interaction of multi-scale turbulence in LHD</li> </ul>
11:05	4:05	22:05	21:05	19:05	A. Shimizu	NIFS	7 + 6	<ul style="list-style-type: none"> <li>Potential and density fluctuation measurement in e-ITB to study isotope effect</li> <li>2D profile of EGAM and its influence on the turbulence and radial transport of bulk plasmas</li> </ul>
11:20	4:20	22:20	21:20	19:20	T. Tokuzawa	NIFS	7 + 6	<ul style="list-style-type: none"> <li>Study of High-k and low-k turbulences characteristics</li> <li>Turbulence Response in SOL</li> </ul>
<b>11:35 4:35 22:35 21:35 19:35</b>						<b>Lunch</b>		
<b>Multi-ion</b>								
13:30	6:30	0:30	23:30	21:30	H. Funaba	NIFS	4 + 4	<ul style="list-style-type: none"> <li>Partial pressure measurement of neutral gases by the Penning gauge spectroscopy</li> </ul>
13:40	6:40	0:40	23:40	21:40	R. Yanai	NIFS	4 + 4	<ul style="list-style-type: none"> <li>ECH alignment</li> </ul>
13:50	6:50	0:50	23:50	21:50	T. Ido	Kyushu University	4 + 4	<ul style="list-style-type: none"> <li>Influence of energetic particles on the formation of the electric potential profiles and impurity transport</li> </ul>
14:00	7:00	1:00	0:00	22:00	W. Ko	Korea Institute of Fusion Energy	4 + 4	<ul style="list-style-type: none"> <li>Poloidal in-out Asymmetric Distributions of Core Toroidal Rotation by ECH</li> </ul>
14:10	7:10	1:10	0:10	22:10	H. Nakano	NIFS	4 + 4	<ul style="list-style-type: none"> <li>Transport study in ECRH superposed ion ITB plasma</li> </ul>
14:20	7:20	1:20	0:20	22:20	T. Tsujimura	NIFS	4 + 4	<ul style="list-style-type: none"> <li>Isotope effects in high-density ECH plasma after hydrogen isotope ice pellet injections</li> </ul>
14:30	7:30	1:30	0:30	22:30	H. Kasahara	NIFS	10 + 8	<ul style="list-style-type: none"> <li>High density plasma heating using ICH, ECH and NBI.</li> <li>Harmonics cyclotron wave excitation through particle-wave interaction process during high ICRF heating</li> <li>Time evolution of particle confinement time on long-pulse plasma discharge.</li> </ul>
<b>14:50 7:50 1:50 0:50 22:50</b>						<b>Break</b>		
15:10	8:10	2:10	1:10	23:10	R. Seki	NIFS	4 + 4	<ul style="list-style-type: none"> <li>Analyses of plasma transport and fast ion confinement with ICRF power modulation</li> </ul>

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Thursday, July 15, 2021

15:20	8:20	2:20	1:20	23:20	V. Moiseenko	Institute of Plasma Physics of the National Science Center "Kharkiv Institute of Physics and Technology"	4 + 4	<ul style="list-style-type: none"> <li>Improved regimes of radio-frequency plasma start-up in LHD</li> </ul>
15:30	8:30	2:30	1:30	23:30	M. van Berkel	DIFFER	4 + 4	<ul style="list-style-type: none"> <li>Investigation of particle transport by optimized multi-sinusoidal modulation</li> </ul>
15:40	8:40	2:40	1:40	23:40	U. Wenzel	Max-Planck-Institut für Plasmaphysik	4 + 4	<ul style="list-style-type: none"> <li>Neutral pressure measurements with robust pressure gauges of the ITER type</li> </ul>
15:50	8:50	2:50	1:50	23:50	C. P. Dhard	Max-Planck-Institut für Plasmaphysik	10 + 8	<ul style="list-style-type: none"> <li>Exposure of material samples into the edge plasma by means of the LHD manipulator</li> <li>Studying the dependence of neutral particle pressures in the divertor region on cryo-vacuum / NEG pumps operation</li> <li>ICRF plasma production in view of IC wall conditioning in W7-X</li> </ul>
16:10	9:10	3:10	2:10	0:10	D. Moseev	Max-Planck-Institut für Plasmaphysik	7 + 6	<ul style="list-style-type: none"> <li>Effect of the 3-ion ICRF heating on impurity exhaust in stellarators</li> <li>Reconstruction of the 5D phase-space distribution function</li> </ul>
16:25	9:25	3:25	2:25	0:25	S. Satake	NIFS	4 + 4	<ul style="list-style-type: none"> <li>Particle species dependence of impurity hole phenomenon</li> </ul>
16:35	9:35	3:35	2:35	0:35	J. L. Velasco	CIEMAT	4 + 4	<ul style="list-style-type: none"> <li>Configuration dependence of the core impurity transport and impurity hole</li> </ul>
16:45	9:45	3:45	2:45	0:45		Break		
17:05	10:05	4:05	3:05	1:05	M. Goto	NIFS	7 + 6	<ul style="list-style-type: none"> <li>Z-dependence of transport characteristics for the high-Ti plasmas</li> <li>Impurity transport study for the electron-root and ion-root regimes</li> </ul>
17:20	10:20	4:20	3:20	1:20	B. Peterson	NIFS	4 + 4	<ul style="list-style-type: none"> <li>Study of poloidal and toroidal asymmetries during impurity seeding in LHD.</li> </ul>
17:30	10:30	4:30	3:30	1:30	J. M. Garcia-Regana	CIEMAT	4 + 4	<ul style="list-style-type: none"> <li>Impact of impurities at non-trace concentration on the background plasma</li> </ul>
17:40	10:40	4:40	3:40	1:40	A. Dinklage	Max-Planck-Institut für Plasmaphysik	4 + 4	<ul style="list-style-type: none"> <li>Mixture-induced phase transitions in multi-ion transport</li> </ul>
17:50	10:50	4:50	3:50	1:50	S. Sereda	University of Wisconsin - Madison	4 + 4	<ul style="list-style-type: none"> <li>He exhaust property in helical divertor</li> </ul>
18:00	11:00	5:00	4:00	2:00		Adjourn		

# Program - FY2021 LHD Research Forum

**Friday, July 16, 2021**

JP	EU	US				Presen + Q&A		
JST	CEST	EDT	CDT	PDT	Mult-ion			
9:00	2:00	20:00	19:00	17:00	E. Gilson	PPPL Princeton Plasma Physics Laboratory	4 + 4 4 + 4	<ul style="list-style-type: none"> <li>Initial experimental tests of lithium powder injection for plasma modification in stellarator geometries</li> <li>Plasma conditioning and performance improvement in stellarator geometries through continuous boron carbide granule injection</li> <li>Effect of Lithium and Boron powder injection on long-term wall retention in LHD with Helium and Deuterium fueling</li> <li>Wall recycling control using low Z powder dropping and the change of their spatial distributions</li> <li>Steady state particle balance of plasmas with active control of H/D gas-puffing and cryopumping</li> </ul>
9:20	2:20	20:20	19:20	17:20	Z. Sun	PPPL	4 + 4	
9:30	2:30	20:30	19:30	17:30	N. Ashikawa	NIFS	4 + 4	
9:40	2:40	20:40	19:40	17:40	Y. Yoshimura	NIFS	4 + 4	
9:50	2:50	20:50	19:50	17:50		<b>Break</b>		
10:10	3:10	21:10	20:10	18:10	M. Shoji	NIFS	10 + 8	<ul style="list-style-type: none"> <li>The evaluation of the toroidal uniformity of the boron deposition on the divertor plates for the real-time boronization using the impurity powder dropper</li> <li>The radiation enhancement and triggering the island divertor detachment by direct supply of BN powders into the magnetic island in the LHD peripheral plasma using the IPD</li> <li>The observation of the three-dimensional trajectories of TESPEL ablation clouds in the LHD peripheral plasma for evaluation an impurity dust transport simulation code DUSTT</li> </ul>
10:30	3:30	21:30	20:30	18:30	S. Masuzaki	NIFS	10 + 8	<ul style="list-style-type: none"> <li>Investigation of deuterium particle balance with and without divertor pumping during long pulse discharges</li> <li>Helium pumping with boron powder dropping</li> <li>Investigation of impurity seeding from inner port</li> </ul>
10:50	3:50	21:50	20:50	18:50	G. Motojima	NIFS	13 + 10	<ul style="list-style-type: none"> <li>Wall exchange mechanism in multi-ions plasma</li> <li>The relation between plasma confinement and neutral particle on divertor condition</li> <li>Helium removal in helium beam experiments</li> <li>Transient wall exchange phenomena using long pulse discharge</li> </ul>
11:15	4:15	22:15	21:15	19:15	K. Nagaoka	NIFS	4 + 4	<ul style="list-style-type: none"> <li>Ion Heating Experiment with He beam injection</li> </ul>
11:25	4:25	22:25	21:25	19:25	H. Yamada	The University of Tokyo	4 + 4	<ul style="list-style-type: none"> <li>Accumulation of confinement data in the case of significant ion heating</li> </ul>
11:35	4:35	22:35	21:35	19:35		<b>Lunch</b>		
13:30	6:30	0:30	23:30	21:30	Y. Fujiwara	NIFS	7 + 6	<ul style="list-style-type: none"> <li>A verification of helium beam depositions</li> <li>Observation of phase space distribution of fast helium ions by Fast-ion charge exchange spectroscopy diagnostic</li> </ul>
13:45	6:45	0:45	23:45	21:45	S. kamio	NIFS	4 + 4	<ul style="list-style-type: none"> <li>Helium ion transport and exhaust in deuterium plasma during the steady-state operation</li> </ul>
13:55	6:55	0:55	23:55	21:55	K. Hanada	Kyushu University	7 + 6	<ul style="list-style-type: none"> <li>He transport on LHD - Inside Plasma -</li> <li>He transport on LHD - Plasma Wall Interaction-</li> </ul>
14:10	7:10	1:10	0:10	22:10	N. Tamura	NIFS	7 + 6	<ul style="list-style-type: none"> <li>Effect of a mixed-ion plasma on impurity transport</li> <li>Commissioning of impurity beam injections with NBI#5 into LHD plasmas</li> </ul>
14:25	7:25	1:25	0:25	22:25	K. Ida	NIFS	7 + 6	<ul style="list-style-type: none"> <li>Mixing and non-mixing states of helium ion</li> <li>Transport in the isotope mixture plasma</li> </ul>
14:40	7:40	1:40	0:40	22:40	K. Ida	NIFS	4 + 4	<b>Closing ANNOUNCEMENT:</b> The following schedule for the upcoming LHD experiment campaign
14:50	7:50	1:50	0:50	22:50		<b>End of Forum</b>		