

KSTAR Conference 2017

January 18th - 20th , 2017

Muju Deogyusan Resort, Jeonbuk, Korea



- Local Organizing Committee:

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- Conference Secretary:

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Technical Program Overview

-Carnival Culture Palace B1F , Muju Resort

Jan. 18 th , 2017 (Wednesday)			
10:00~10:10	Opening & Welcome Address Ensemble Hall		
10:15~12:00	Plenary Session 1 - Ensemble Hall		
12:00~13:40	Lunch Break (SELF HOSTED)		
13:40~15:40	Poster Session 1 Lobby (Hall-1)	Satellite 1A (Sonata Hall) Satellite 1B (Waltz Hall)	
	Coffee Break		
16:00~18:00	Parallel Oral 1A <3D Pysics & ELM Control> Symphony Hall	Parallel Oral 1B <Fusion Engineering> Ensemble Hall	Parallel Oral 1C <Heat & CD> Concerto Hall
18:30~	Welcome Dinner Ziletal Hall (Hotel Tirol B2F)		
Jan. 19 th , 2017 (Thursday)			
9:00~10:10	Plenary Session 2 - Ensemble Hall		
	Coffee Break		
10:30~12:30	Parallel Oral 2A <MHD & EP> Symphony Hall	Parallel Oral 2B <ITER> Ensemble Hall	Parallel Oral 2C <Diagnostics> Concerto Hall
12:30~13:40	Lunch Break (SELF HOSTED)		
13:40~15:40	Poster Session 2 Lobby (Hall-1)	Satellite 2A (Sonata Hall) Satellite 2B (Waltz Hall)	
	Coffee Break		
16:00~18:00	Parallel Oral 3A <Plasma Control> Symphony Hall	Parallel Oral 3B <Blanket & Diverter> Ensemble Hall	Youth Competition <Step to tomorrow> Concerto Hall
Jan. 20 th , 2017 (Friday)			
9:00~10:10	Plenary Session 3 - Ensemble Hall		
	Coffee Break		
10:30~12:30	Parallel Oral 4A <Scenario> Symphony Hall	Parallel Oral 4B <Transport & Turbulence> Ensemble Hall	Parallel Oral 4C <PWI & Impurity> Concerto Hall
12:30~13:40	Lunch Break (SELF HOSTED)		
13:40~15:50	Plenary Session 4 & Closing Address - Ensemble Hall		

Program of the KSTAR Conference 2017

January 18th, Wednesday

9:00-10:00	Registration & Announcement
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Opening	Ensemble Hall
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10:00	Opening Remark	Keeman Kim (NFRI)
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Plenary Session 1	Ensemble Hall <i>Chair : Hyeon K. Park (UNIST/NFRI)</i>
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10:15	Overview of KSTAR Experimental Results in 2017 Campaign	Si-Woo Yoon (NFRI)
10:50	Experimental validation of predicted ELM suppression windows in KSTAR RMP coil configuration space	Jong-Kyu Park (PPPL)
11:25	Fusion Energy Development Plan in Korea	Yong Seok Hwang (SNU)

12:00-13:40	Lunch Break (SELF HOSTED)
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13:40-15:40	Poster Session I ※ Poster attachment before 13:00 (List of presentations is on page 10)	Lobby (Hall-1)
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15:40-16:00	Coffee Break
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Parallel Oral 1A (3D Physics & ELM Control)	Symphony Hall <i>Chair : Jong-Kyu Park (PPPL)</i>
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16:00	Enhanced understandings of 3-D Physics in KSTAR	Yongkyoon In (NFRI)
16:20	Plasma shape effects on RMP coupling to plasma and its impact on ELM-crash suppression of KSTAR plasmas	YoungMu Jeon (NFRI)
16:40	Extended operation range of edge localized mode crash control using multi-spectral magnetic perturbation in KSTAR	Jayhyun Kim (NFRI)
17:00	Transition between resonant and non-resonant plasma response by q95 variation in KSTAR	Kimin Kim (KAIST)

17:20	Modified edge-localized mode structure and its interaction with edge turbulence under $n=1$ magnetic perturbation	Jaehyun Lee (UNIST)
17:40	Generalized viscous effects for non-axisymmetric tokamak plasmas	Cheonho Bae (NFRI)

Parallel Oral 1B
(Fusion Eng.)

Ensemble Hall
Chair : Yong Seok Hwang (SNU)

16:00 (inv.)	Fusion Research on IR-T1 and Damavand Tokamaks	Mahmood Ghoranneviss(IRAN)
16:30 (inv.)	Overview of VEST Operation	Jeong-Hun Yang (SNU)
17:00	Improvement of Induced Voltage Compensation in the Quench Detection System for the KSTAR PF1 Coils	Hirofumi Yonekawa (NFRI)
17:20	Upgrading SUPERMAGNET code : novel flow-branching components and their hydraulic-coupling scheme to improve the performance	Dong-Keun Oh (NFRI)
17:40	Analysis of Preloading on KSTAR CS Magnet	Hee-Jae Ahn (NFRI)

Parallel Oral 1C
(Heat/CD)

Concerto Hall
Chair : Seung-Ho Jung (KAERI)

16:00	The Performance and Status of KSTAR NBI System	Son-Jong Wang (NFRI)
16:20	Introduction of ICRF system and experiments in EAST	Yanping ZHAO (ASIPP)
16:40	Overview of KSTAR ECH System and Operation Results of Newly Developed 105/140GHz ECH System	Mi Joung (NFRI)
17:00	Recent LH and EC wave experiments in EAST	Bojiang DING (ASIPP)
17:20	Development of prototype PAM and mode converter for 0.5-MW LHCD system	Jeehyun Kim (NFRI)
17:40	Design of high power helicon current drive system for KSTAR plasma	Hyun-Ho Wi (NFRI)

18:30 –

Welcome Dinner (HOSTED BY NFRI)

Ziletal Hall
(Hotel Tirol B2F)

Satellite Meeting 1A

Sonata Hall

TBD

• 13:40-15:40

Satellite Meeting 1B

Waltz Hall

TBD

• 13:40-15:40

January 19th, Thursday

8:30-9:00	Registration & Announcement
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Plenary Session 2		Ensemble Hall Chair : Richard Buttery (GA)
09:00	Status of the Chinese Fusion Program	Luo Delong (CNDA)
09:35	WEST: from Project to Research Programme towards ITER risk mitigation	Andre Grosman (CEA)

10:10-10:30	Coffee Break
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Parallel Oral 2A (MHD & EP)		Symphony Hall Chair : Kouji Shinohara (QST)
10:30 (inv.)	MHD in low and reversed-shear systems	Ahmet Y. Aydemir (NFRI)
11:00 (inv.)	A generalized complex Ginzburg-Landau model for steady-state edge-localized modes	Gunsu Yun (POSTECH)
11:30	Mode Identification by Magnetic Probes on Passive Plate in KSTAR	Hyunsun Han (NFRI)
11:50	Nonlinear BOUT++ ELM simulation in KSTAR H-mode plasma	Minwoo Kim (UNIST)
12:10	Fast-ion loss associated with external magnetic perturbation in KSTAR	Jun-Young Kim (UST/NFRI)

Parallel Oral 2B (ITER)		Ensemble Hall Chair : Luo Delong (CNDA)
10:30 (inv.)	Status of the KODA Procurement Activities	Ki-Jung Jung (NFRI)
11:00 (inv.)	Progress of ITER Procurement in Japan- Challenges in Science and Technology	Takashi Inoue (QST)
11:30	Further R&D Points for Process Development on Fusion Fuel Cycle From the Viewpoint of Chemical Engineer	Sei-hun Yun (NFRI)
11:50	Manufacturing status of the ITER Vacuum Vessel Sector in Korea	Wooho Chung (NFRI)
12:10	Manufacturing and Test of AC/DC Converters for the ITER Coil Power Supply System	Jong-Seok Oh (NFRI)

Parallel Oral 2C (Diagnostics)		Concerto Hall Chair : Soo-Ghee Oh (Ajou Univ.)
10:30	Electron density and temperature inference using Bayesian analysis on KSTAR Thomson scattering system with fast sampling digitizers	Young-chul Ghim (KAIST)

10:50	Observation of the loss of runaway electrons and following radiative cooling induced by magnetic perturbation	Mun-Seong Cheon (NFRI)
11:10	Status and Plan for Profile Diagnostics in KSTAR	Yong Un Nam (NFRI)
11:30	Radiation tolerance test of the VUV detector for ITER VUV spectrometers in KSTAR	YoungHwa An (NFRI)
11:50	Radio frequency diagnostics for exploring the lower hybrid frequency instabilities in the tokamak edge	Shekar Thatipamula (POSTECH)
12:10	Neutron Diagnostics at the KSTAR Tokamak	YoungSeok Lee (NFRI)

12:30-13:40	Lunch Break (SELF HOSTED)	
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13:40-15:40	Poster Session 2 <i>※ Poster attachment before 13:00</i> <i>(List of presentations is on page 12)</i>		Lobby (Hall-1)
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15:40-16:00	Coffee Break	
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Parallel Oral 3A (Plasma Control)		Symphony Hall Chair : Dennis Mueller(PPPL)
16:00 (inv.)	Progress in development of ITER-relevant scenario in KSTAR	Michael Walker (GA)
16:30 (inv.)	mdtmFTP – A High-performance Data Transfer Tool for Fusion Science	Wenji Wu (Fermilab)
17:00	Progress and plan of KSTAR plasma control system upgrade	Sang Hee Hahn (NFRI)
17:20	Progress on Density Feedback Control in 2016	June-Woo Juhn (NFRI)
17:40	New understanding of the ohmic breakdown mechanisms in KSTAR	Min-Gu Yoo (SNU)

Parallel Oral 3B (Blanket & Divertor)		Ensemble Hall Chair : Bong Guen Hong (Chonbuk N.Univ.)
16:00	HCCR-TBS Test Plan in ITER and R&D Activities	Seungyon Cho (NFRI)
16:20	High heat flux tests with KoHLT-EB for PFC development at KAERI	Dong Won Lee (KAERI)
16:40	Enhancement in measuring outer divertor heat load profile via divertor infra-red TV system on KSTAR	Hyung Ho Lee (NFRI)
17:00	Enhanced Fuel Gas Retention of Tungsten Divertor by Re-implanted Impurity Ions from 1st Wall and Divertor	Younggil Jin (SNU)

17:20	Analysis of void growth in BCC crystal with crystal plasticity finite element method	Woojin Jeong (Korea Univ.)
17:40	First Principles Calculations on Defect Clusters in W-Re-Ta System	Youngguk Shin (KyungHee Univ.)

Youth Session (A Step to Tomorrow)		Concerto Hall Chair : Young-chul Ghim (KAIST)
16:00	Core toroidal rotation characteristics of L-mode ohmic plasmas in KSTAR	Jeong -Won Yoo (UST/NFRI)
16:15	Plasma characterization by the THz time-domain spectroscopy	Do Geun Jang (GIST)
16:30	Preliminary results of space-resolved tungsten spectra using a compact imaging extreme ultraviolet (EUV) spectrometer during 2016 KSTAR campaign	Inwoo Song (KAIST)
16:45	Design optimization of cooling channel of water-cooled fusion reactor divertor	Youngjae Park (KyungHee Univ.)
17:00	Distinctive changes of ion cyclotron emissions around the crash onset of edge-localized mode	Minho Kim (POSTECH)
17:15	Effect of Neoclassical Viscosity on ITG Turbulence in Reversed Shear Plasma	YounWoo Cho (SNU)
17:30	3D Field Effect on Zonal Flows in Tokamak Plasmas	Gyung Jin Choi (SNU)
17:45	Investigation of L-H transition in KSTAR utilizing beam emission spectroscopy system	Tae-suk Oh (KAIST)

Special Satellite Meeting	Concerto Hall
KSTAR PAC Preparation Meeting • 13:40-15:40 • Contact : Y.K. Oh (ykoh@nfri.re.kr)	

Satellite Meeting 2A	Sonata Hall
KSTAR CMO Meeting • 10:00-18:00 • Contact : Y. Chu (ychu@nfri.re.kr)	

Satellite Meeting 2B	Waltz Hall
TBD • 13:40-15:40	

January 20th, Friday

Plenary Session 3

Ensemble Hall

Chair : David Campbell (ITER)

9:00	Progress and Plans in Research on DIII-D	Richard Buttery (GA)
9:35	New Developments on the Theory for Neoclassical Toroidal Plasma Viscosity	Ker-Chung Shaing (NCK Univ.)

Parallel Oral 4A

(Scenario)

Symphony Hall

Chair : Andre GROSMAN (CEA)

10:30 (inv.)	Development of Advanced Scenarios in Tokamaks: Retrospect and Prospect	(inv.)Yong-Su Na (SNU)
11:00 (inv.)	Formation of Internal transport barrier (ITB) in KSTAR	(inv.)Jinil Chung (NFRI)
11:30	Direct measurements of safety factor with motional Stark effect for KSTAR	Jinseok Ko (NFRI)
11:50	Application of motional stark effect measurement constrained equilibrium reconstruction to internal transport barrier formation discharges in KSTAR	Hyun-Seok Kim (NFRI)
12:10	The LH transition and rotation studies on effect of non-axisymmetric magnetic fields in KSTAR	Won-Ha Ko (NFRI)

Parallel Oral 4B

(Transport & Turbulence)

Ensemble Hall

Chair : Ker-Chung Shaing (NCK U.)

10:30 (inv.)	Thermal confinement and electron temperature fluctuation change with vertical scan of the electron cyclotron resonance heating	Minjun Choi (NFRI)
11:00 (inv.)	Bounce-averaged gyrokinetic simulations of electrostatic microturbulence for shaped tokamak plasmas	Lei Qi (NFRI)
11:30	Quasi-coherent mode observations in ohmic and ECH plasmas	Woochang Lee (NFRI)
11:50	Residual Stress and Momentum Transport in Electromagnetic ITG Turbulence	H. Kaang (NFRI)
12:10	Full-f XGC1 simulations of pure and impure plasmas with ITG turbulence: Impact of carbon impurities on global features of transport	Kyuho Kim (KAIST)

Parallel Oral 4C

(PWI & Impurity)

Concerto Hall

Chair : Jong-Gu Kwak (NFRI)

10:30 (inv.)	Shielding and amplification of non-axisymmetric divertor heat flux by plasma response to applied 3-D fields in NSTX and KSTAR	Joon-Wook Ahn (ORNL)
11:00 (inv.)	Hydrogen isotope retention on deposited W materials exposed to plasmas in KSTAR	Ashikawa Naoko (NIFS)
11:30	Brief summary of Plasma-Surface Interaction activity in KSTAR	Suk-Ho Hong (NFRI)

11:50	VUV spectroscopy in impurity injection experiments for Z-dependence study of impurity distribution at KSTAR	Changrae Seon (NFRI)
12:10	Investigation of Kr seeding and its transport in KSTAR H-mode plasmas	Joohwan Hong (KAIST)

12:30-13:40	<i>Lunch Break (SELF HOSTED)</i>	
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<i>Plenary Session 4 & Closing</i>		<i>Ensemble Hall</i>
		<i>Chair : Myeun Kwon (NFRI)</i>
13:40	Recent progress on JT-60SA Project	Kouji Shinohara (QST)
14:15	Progress in ITER construction and preparation for Operations	David Campbell (ITER)
14:50	Vision of KSTAR Research toward the Korean Fusion effort	Hyeon K. Park (UNIST/NFRI)
15:25	Closing Address	

※Guidance for Oral/Plenary Speakers.

- Official language: English
- File format: photoshop (.pdf), powerpoint (.ppt, pptx)
- If you want to change your presentation file, Please bring latest version in USB before the session
- Recommended presentation time:
 - Plenary Talk : 35min.= 30min.(presentation) + 5min.(discussion)
 - Invited Oral : 30min.= 25min.(presentation) + 5min.(discussion)
 - Oral : 20min.= 15min.(presentation) + 5min.(discussion)

POSTER PRESENTATION

Poster Session 1
(Jan. 18th 13:40-15:40)

Lobby (Hall-1)

[Notice] Poster Attachment(before 13:00) & Detachment(18:00)

No.	Name	Affiliation	Title
P1-1	Bae Min Keun	Hanyang Univ	ELM simulation experiment by magnetic modulation in DiPS-2
P1-2	Gunyoung Park	NFRI	Extended MHD modeling of plasma response to non-axisymmetric fields in reversed Ip discharges in KSTAR
P1-3	Anuraj Panwar	POSTECH	Radially localized kinetic BAEs in Tokamak Plasma
P1-4	SangKyeun Kim	SNU	Study on Effect of MHD Parameters to Behavior of ELM Divertor Heat Flux with JOEKE
P1-5	Hee-soo Kim	NFRI	Radiation Safety of KSTAR 2016 Campaign
P1-6	Jaesic Hong	NFRI	Upgrade Plan for the KSTAR Fast Interlock System
P1-7	Hyun-Jung Lee	NFRI	Thermo-hydraulic behavior during KSTAR PF magnet charging: Dependence on the way of cryogenic circuit modeling
P1-8	Insik Woo	NFRI	Statistical Analysis of Machine Operation and Plasma Experiment in the KSTAR Campaigns
P1-9	Nam Yong Jung	NFRI	Status of PFC N2 gas Baking and Water Cooling System
P1-10	Kwangpyo Kim	NFRI	Design of the large cryo-condensation pump for the NBI-2
P1-11	Hyunmyung Lee	NFRI	Operation results of recovery procedure for the vacuum environment on KSTAR vacuum vessel
P1-12	Seong-Lok, Hong	NFRI	Study on stabilization of the MG power system
P1-13	Jae-In Song	NFRI	Operational Results of the Upgraded KSTAR Fueling System
P1-14	Young Ok Kim	NFRI	Experimental Evaluation of Operation Stability for the KSTAR Magnet System
P1-15	SeulChan Hong	SNU	Development of Real-Time Controllable Power Supply System for VEST
P1-16	Junseong Kim	Yonsei Univ	A Study on the Current Distribution of Stacked and Parallel HTS Current Lead Considering the Thermal and Magnetic Characteristics
P1-17	In Je Kang	Hanyang Univ	Experiment of a Free Presheath in DiPS-2
P1-18	Doo-Hee Chang	KAERI	Characterization of a High-Power RF Ion Source for High-Energy Beam Applications in KAERI
P1-19	Sung Pyo Hong	Konyang University	Nuclear Radiation effects on electronic in ITER
P1-20	Byungkeun Na	NFRI	Plan for the Full Energy Fraction Improvement of the KSTAR NBI
P1-21	Daejun Choi	NFRI	NBI-1 Result of 2016 KSTAR Campaign and Development plan of NBI-2

P1-22	Haejin Kim	NFRI	ICRF heating experiments in KSTAR Plasmas
P1-23	Jongwon Han	NFRI	Upgrade plan for KSTAR ECH launcher system for 2017 KSTAR campaign
P1-24	Jinhyun Jeong	NFRI	Development of High Voltage Power Supply based on Pulse Step Modulation technique for new NBI system in KSTAR
P1-25	Jongsu Kim	NFRI	Operation Results of NBI-1 System in 2016 KSTAR Campaign and Status of NBI-2 Control System
P1-26	Sunggug Kim	NFRI	Design of a ECH launcher for the efficient plasma heating on KSTAR
P1-27	hyun taek Park	NFRI	Full energy dump accident in the KSTAR NBI-1 beam line system during 2016 Campaign and upgrade plan
P1-28	In-hyuk Rhee	NFRI	Configuration and function of 105/140 GHz ECH water cooling system
P1-29	Sangwook Jung	NFRI	Depressed ion dump for stable operations and the efficiency enhancement of KSTAR neutral beam injection system
P1-30	Wook Cho	NFRI	Issues and Improvement of Arc Power supply for Long Pulse KSTAR NBI
P1-31	Young-soon Bae	NFRI	Ray Tracing Simulation on Possibility of Enhanced ECCD using Top Launch in KSTAR
P1-32	Young-soon Bae	NFRI	Ray Tracing and Full-wave Simulation of KSTAR LH Wave
P1-33	Jihyun Hwang	POSTECH	Design of an Electron gun for C-band klystron
P1-34	B.H. Park	NFRI	Introduction to the current status of a project of TOKAMAK simulator development
P1-35	Jeongwon Lee	SNU	Study on ECH-assisted plasma start-up using trapped particle configuration in KSTAR and application to ITER
P1-36	Seongcheol Kim	SNU	Scenario Development for the Long Pulse Discharge in Versatile Experiment Spherical Torus
P1-37	Jae-Min Kwon	NFRI	Status and Development Plan of gKPSP code
P1-38	KwanChul Lee	NFRI	Application of E-field formation mechanism at tokamak edge to the earth ionosphere and aurora
P1-39	DongHyeon Na	SNU	Rotation Reversal in KSTAR and Its Turbulence and Transport Characteristics
P1-40	Kyeong Pyo Lee	SNU	Gyro-kinetic Study of Rosenbluth-Hinton Zonal Flow for Slowing Down Distribution
P1-41	SeongMoo, Yang	SNU	Perturbative studies of toroidal momentum transport in KSTAR H-mode plasmas
P1-42	Yuejiang Shi	SNU	Intrinsic rotation reversal, non-local transport, and turbulence transition in KSTAR L-mode plasmas
P1-43	Byunghoon Min	Soongsil University	Variation of Cross Phase and Thermal Transport by Zonal Vorticity Gradient
P1-44	Chan-Yong AN	Soongsil University	Evolution of Cross Phase by ExB flux
P1-45	Taemin Jeon	KAIST	Observation of a, island-like structure at mid-radius region in ELM event using a tangential pinhole camera with gas electron multiplier (GEM) detector
P1-46	Hyunwoo Lee	Kwangwoon University	Study on $n $ Variable Antenna using Fast Wave in Lower Hybrid Resonance Frequency Ranges
P1-47	Hosun Lee	Kyung Hee University	Spatial Configuration of Erosion and Deposition of a-C:H Thin Films in an ECR Chamber

P1-48	Cao Bin	NFRI	The wall retention in KSTAR 2016 experiment campaign
P1-49	Eunnam Bang	NFRI	Comparing the Contribution of Ion and Neutral inside the Gap of Castellated Tungsten Blocks.
P1-50	Soo-Hyun Son	NFRI	Analysis Hydrogenated Carbon Layer Obtained in KSTAR
P1-51	T. Rhee	NFRI	Current status of development of neutral beam deposition code

Poster Session 2

(Jan. 19th 13:40-15:40)

Lobby (Hall-1)

[Notice] Poster Attachment(before 13:00) & Detachment(18:00)

No.	Name	Affiliation	Title
P2-1	Dae Ho Kwon	KAIST	Bayesian inference on KSTAR FRLPA data to obtain radial profile of edge electron density and temperature
P2-2	Dong Keun Oh	NFRI	Implementing 5th order flux-splitted WENO scheme for ideal magnetohydrodynamics in the BOUT++ framework
P2-3	Kwang-Il You	NFRI	On the developing a resistive MHD simulator for tokamaks
P2-4	Min Ho Woo	NFRI	Nonlinear Stability Analysis of Magnetic Island in Cylindrical Tokamak
P2-5	Gunsu Yun	POSTECH	Solitary perturbation triggering the collapse of edge confinement
P2-6	Yoonbum Nam	POSTECH	Linear stability analysis for q-profile validation in sawtooth KSTAR plasmas
P2-7	Gnan Kim	POSTECH	Disruptions in KSTAR
P2-8	Volodymyr V. Mykhaylenko	Pusan N.Univ.	The short wavelength drift-Alfven modes in parallel sheared flows
P2-9	Kouji Shinohara	QST	Evaluation of observable phase space with fast ion loss detector by calculating guiding center orbits in consideration of plasma facing components and three-dimensional magnetic field
P2-10	Hokyu Moon	NFRI	Manufacturing status of the ITER Vacuum Vessel Port in Korea
P2-11	Hyun Kook Shin	NFRI	Study of SIL Evaluation Process for the F-LIC in Coil Power Supply System According to IEC 61508
P2-12	Soun Pil Kwon	NFRI	Everyday Lessons Relearned: an insider's account of what went well and what did not during procurement for ITER
P2-13	B.C. Kim	NFRI	Prototyping Plan of ITER IVCs (In-Vessel Coils) Busbar
P2-14	Kwan-yong Kim	Hanyang Univ	Measurement of the plasma parameters after edge localized mode crash using multichannel probe
P2-15	Alvin Amry Sugianto	KAIST	Feasibility study of using Bayesian theorem for electron density reconstruction with line-integrated density measurements

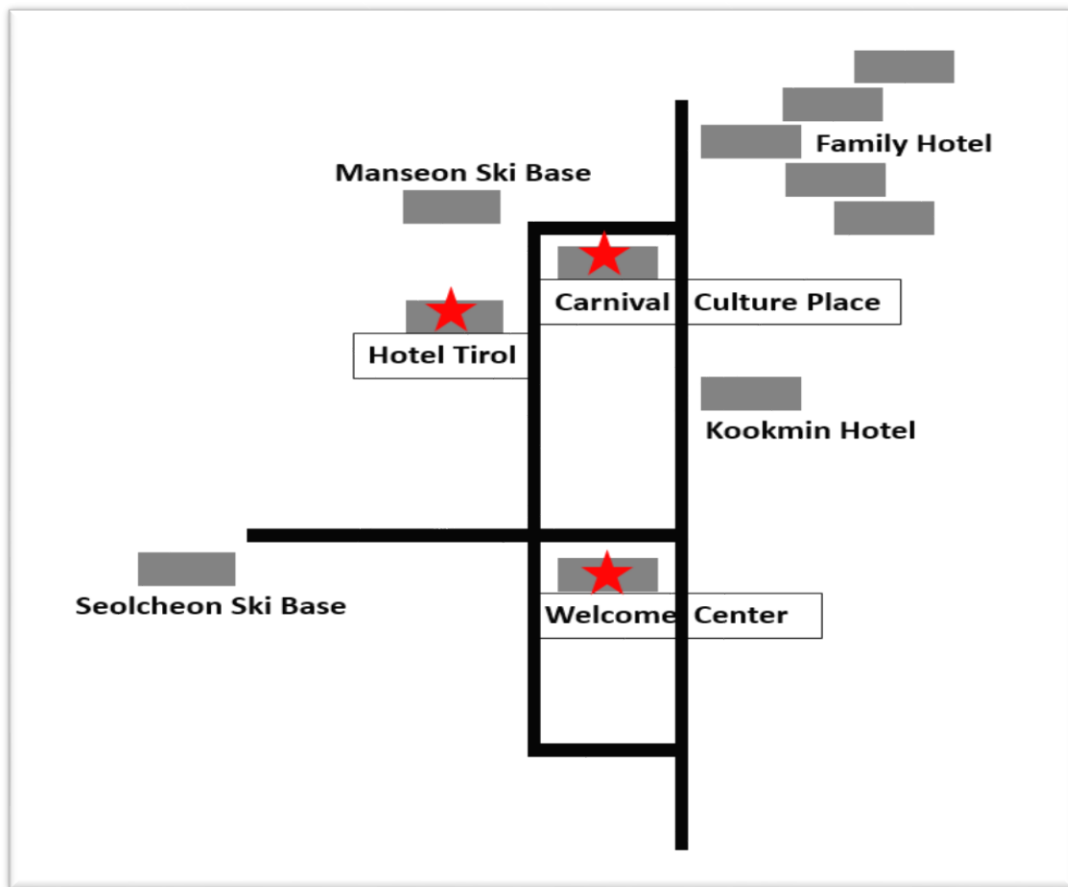
P2-16	Jaewook Kim	KAIST	Reliability of two points correlation length measurement and parallel correlation length measurement at H-1NF Helic
P2-17	Juhyeok Jang	KAIST	Two-dimensional radiation measurement in gaseous impurity transport experiment with KSTAR infrared imaging video bolometer (IRVB)
P2-18	Keon Hee Kim	KAIST	Reliable range of electron temperature measurements with a set of given optical band-pass filters for Thomson scattering diagnostic system
P2-19	Gwan Hee Lee	Kyungpook N. Univ.	A Design of MS-to-CPS Transition of High Impedance CPS for MIR detector array Balun
P2-20	Dongcheol Seo	NFRI	Status of Survey IRTV diagnostic for KSTAR
P2-21	Jong-ha Lee	NFRI	Upgraded Thomson scattering diagnostic on KSTAR
P2-22	Jun Gyo Bak	NFRI	Experimental Investigation of Rotating Halo Current in the KSTAR tokamak
P2-23	Junghee Kim	NFRI	Conceptual Design of Fast-Ion D-alpha (FIDA) Diagnostic on KSTAR
P2-24	Kyu-Dong Lee	NFRI	Electron temperature profile measurement using a W-band ECE heterodyne radiometer at KSTAR
P2-25	Myungkyu Kim	NFRI	The ASDEX Gauge in KSTAR: 2016 Results and 2017 Plan
P2-26	Seong-Heon Seo	NFRI	Plasma density profile measurements by using reflectometer during ELM suppression due to RMP injection
P2-27	Youngseok Lee	NFRI	A Status of Fast-Neutron Imaging Technology at the KSTAR Tokamak
P2-28	Jungmin Jo	SNU	Characteristics of PMT as ex-vessel radiation detector in fusion device and its use for the fusion neutron and runaway electron fluctuation monitor
P2-29	YooSung Kim	SNU	Combined system of helium charge exchange spectroscopy and hydrogen beam emission spectroscopy in VEST
P2-30	Jaehyun Lee	UNIST	KSTAR ECE Imaging System for Visualization of MHD and Turbulence Physics
P2-31	Leekyo Jung	UNIST	Optics design of new ECEI system on KSTAR H-port
P2-32	Giil Kwon	NFRI	A real-time parallel data communication and processing software framework
P2-33	Heung-Su Kim	NFRI	Improvements of magnetic measurements for plasma control
P2-34	Insik Choi	NFRI	Poloidal Field Design in Tokamak Research
P2-35	YeonJung Kim	NFRI	The upgrade of HDS/CLS IOC into a 64bit EPICS IOC server
P2-36	Woongryol Lee	NFRI	Two points continuous data transmission system based on the KSTAR I&C standards
P2-37	Taegu Lee	NFRI	Plasma density calculation using FPGA
P2-38	Taehyun Tak	NFRI	Plan for development of KSTAR event and data processing architecture
P2-39	Dennis Mueller	PPPL	Improvements to the fast vertical control on KSTAR
P2-40	Mark Boyer	PPPL	Vertical stability and control improvements on NSTX-U and potential for application to KSTAR

P2-41	Han Kyu Kim	Changwon N.Univ.	Titanium and Tantalum effects during long-term heat exposure of Reduced Activation Ferritic-Martensitic Steel
P2-42	Woo Jun Byeon	Dankook University	Study of the activation energy for deuterium desorption in ARAA by using a TDS methods
P2-43	Kwang Jin Jung	KAERI-UST	Heat Transfer in a Depleted Uranium Bed
P2-44	J.S. Park	KAIST	SOLPS simulations of gas puffing effects on divertor conditions
P2-45	Hun-Chea Jung	NFRI	Investigation of MoS2 Coating Conditions for Central Bolt Insert of Blanket System
P2-46	Soon Chang Park	NFRI	Performance Testing of Cryogenic Hydrogen Absorption in PGLoop
P2-47	Jae Gon Lee	SNU	Upgrade of Mesh Generator for Analysis of Double Null and Snowflake Divertor configurations
P2-48	Ki-Baek Roh	SNU	Observation of crack formation on the tungsten at strike point thermal condition of divertor
P2-49	Hyung Gyu Lee	Yonsei University	Irradiation damage of bulk BCC W under the multiple-irradiations: molecular dynamics study
P2-50	Sung Pil Woo	Yonsei University	Development of Li-rich Lithium-Titanate by Solid-State Process for Tritium Production in Nuclear Fusion Reactor
P2-51	Semin Joung	KAIST	Neural network for real-time plasma equilibrium reconstruction and imputation of missing magnetic signals based on Bayesian analysis in KSTAR
P2-52	Jinseop Park	NFRI	IMPROVEMENT KSTAR NETWORK for LAN and WAN Collaboration
P2-53	June-Woo Juhn	NFRI	Progress on the KSTAR Laser Interferometers in 2016

※Guidance for Poster Speakers.

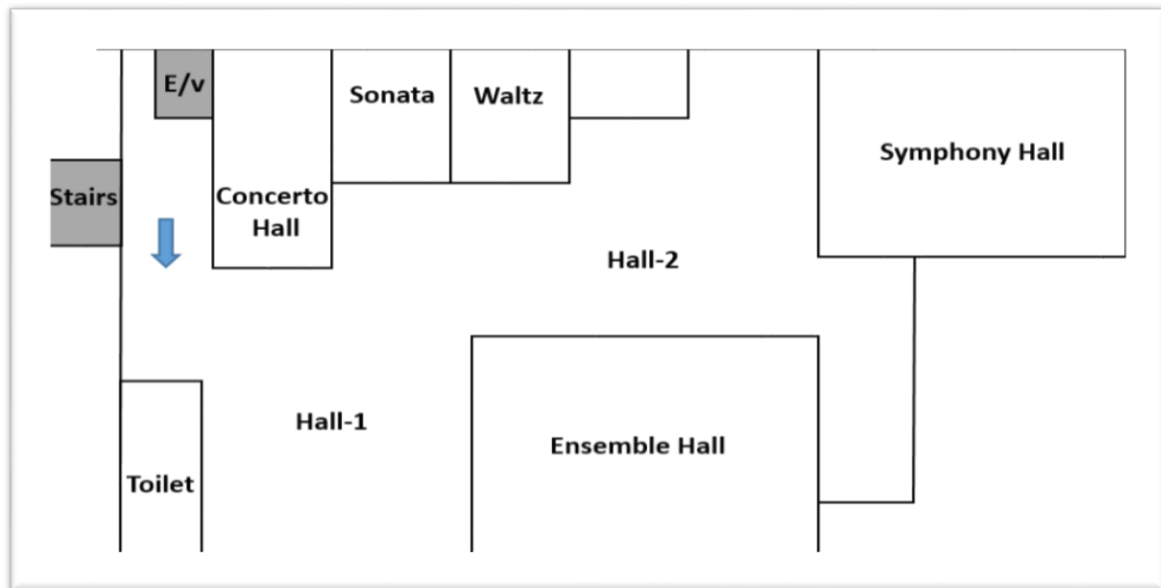
- Official Language: English
- Poster Size : A0 (841X1,189mm) or equivalent
- Poster Attachment and Detachment
 - Attachment : before 13:00
 - Detachment : 18:00
- Each poster has been assigned a number, and must be mounted on the appropriately numbered board. Please check number.

Map of Muju Resort



*The shuttle bus operates regularly within the resort.

Map of Carnival Culture Palace B1F (Conference House)



◎ Transportation

○ Incheon Air port → **Daejeon Government Complex (Chungsa Terminal)** → Hotel

* You can buy ticket from any ticketing kiosk at the 1st floor outside the Incheon airport building. The bus stop to Daejeon is "No. 9D" after crossing the street.

- Airport Limousine Bus (almost 23,100won/1person, 2h 50min)
- (Terminal) → Interciti Hotel) : Taxi (almost 10,000won , 10min)
- (Hotel to NFRI) : Taxi (almost 10,000won , 10min)

○ **Daejeon → Muju Resort**

* **We provide a shuttle bus to conference attendees.**

* **Be sure to check the conference website (Registration - Participation Form - Transportation).**

- Jan. 18th : NFRI (8 :00am) → Muju Resort(9:40am)

Toyoko Inn (7:40am) → Interciti Hotel (08:00am) → Muju Resort(9:40am)

- Jan. 20th : Muju Resort (4:00pm) → NFRI , Hotel

○ **If you do not use the NFRI shuttle bus (Daejeon → Muju Resort),**

- From Incheon International Airport or Seoul, you can take a bus to Daejeon-Dongbu-Bus-Terminal (Daejeon Complex Terminal).

- You have to use bus from Daejeon-Dongbu-Bus-Terminal (Daejeon Complex Terminal) to Muju and take a resort shuttle bus from Muju to the resort.

■ Daejeon Terminal <--> Muju Terminal.

Departure	Arrival	Departure	Arrival
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Daejon Terminal Complex	Muju Bus Terminal	Muju Bus Terminal	Daejon Terminal Complex
7:20	8:10	7:00	7:50
8:00	8:50	7:40	8:30
9:00	9:50	8:30	9:20
9:40	10:30	9:00	9:50
10:30	11:20	9:50	10:40
11:10	12:00	10:30	11:20
12:00	12:50	11:30	12:20
12:50	13:40	12:35	13:25
13:20	14:10	13:20	14:10
14:00	14:50	14:00	14:50
14:50	15:40	14:35	15:25
15:20	16:10	15:10	16:00
16:10	17:00	16:10	17:00
16:50	17:40	16:40	17:30
17:30	18:20	17:35	18:25
18:10	19:00	18:25	19:15
19:00	19:50	19:30	20:20
20:00	20:50	20:00	20:50
21:00	21:50	20:40	21:30

- Travelling Time(50~60Min.)

■ Muju Terminal <--> Muju Resort.

Departure	Arrival	Departure	Arrival
Muju Bus Terminal	Muju Resort	Muju Resort	Muju Bus Terminal
07:30	08:20	09:30	10:20
10:30	11:20	13:00	13:50
14:15	15:05	15:30	16:20
16:40	17:10	18:00	18:50
19:10	19:40		