

KSTAR Conference 2016

February 24th - 26th , 2016

DCC(Daejeon Convention Center), Daejeon, Korea



- Local Organizing Committee:

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Dr. Yong Chu (ychu@nfri.re.kr), NFRI
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- Conference Secretary:

Mr. Seok-In Yoon (siyoon@nfri.re.kr), NFRI

Technical Program Overview

February 24 th , 2016(Wednesday)			
9:40~10:00	Registration & Announcement		
10:00~10:20	Opening & Welcome Address Conference room (Rm.301)		
10:30~12:15	Plenary Session 1 Rm.301		
12:15~13:30	Lunch Break (SELF HOSTED)		
13:30~15:30	Parallel Oral 1A [Experimental Research] Rm.301	Parallel Oral 1B [Diagnostics Research] Rm.101	Parallel Oral 1C [Fusion Engineering] Rm.105
	Coffee Break		
15:50~18:00	Poster Session 1 Rm.103		Satellite 1 Fusion & Accelerator Test and Evaluation Facility Build-Up Meeting Rm.105
18:30~	Welcome Dinner ICC Hotel		
February 25 th , 2016(Thursday)			
9:10~10:20	Plenary Session 2 Rm.301		
	Coffee Break		
10:40~12:10	Parallel Oral 2A [Experiments & Theory] Rm.301	Parallel Oral 2B [Diagnostics Research] Rm.101	Parallel Oral 2C [ITER / DEMO] Rm.105
12:10~13:30	Lunch Break (SELF HOSTED)		
13:30~15:30	Parallel Oral 3A [Experiments & Theory] Rm.301	Parallel Oral 3B [PWI & Material] Rm.101	Satellite 2 (13:30) Introduction to ITER Organization Job Opening (14:30) ITER Technology Workshop Rm.105
	Coffee Break		
15:50~18:00	Poster Session 2 Rm.103		
February 26 th , 2016(Friday)			
9:10~10:40	Parallel Oral 4A [Experiments & Theory] Rm.301	Parallel Oral 4B [Heating & CD] Rm.101	Parallel Oral 4C [Fusion Engineering] Rm.105
	Coffee Break		
11:00~12:10	Plenary Session 3 Rm.301		
12:10~	Closing & Adjourn Rm.301		

Program of the KSTAR Conference 2016

February 24th, Wednesday

9:40-10:00	Registration & Announcement
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Opening		Conference room (301)
10:00	Opening Remark	Keeman Kim (NFRI)
10:10	Welcome Address	Hyun-Sook Cho (MSIP)

Plenary Session 1		Conference room (301) <i>Chair : Hyeon K. PARK (NFRI/UNIST)</i>
10:30	Status of the KSTAR 2015 Campaign and Near-term Plan	Yeong-Kook Oh (NFRI)
11:05	Versatile Experiment Spherical Torus in the Korean Fusion Program	Yong Seok Hwang (SNU)
11:40	Progress Status of the ITER Project and the Manufacturing status of Korean Procurement Packages	Ki-Jung JUNG (NFRI)

12:15-13:30	Lunch Break (SELF HOSTED)
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Parallel Oral 1A (Experimental Research)		Conference room (301) <i>Chair : Yong Seok Hwang (SNU)</i>
13:30 (inv.)	Progress in 3-D Physics Research in KSTAR	Yongkyoon IN (NFRI)
14:00 (inv.)	Investigation of fast ion behavior using orbit following Monte-Carlo code in magnetic perturbed field in KSTAR	Kouji SHINOHARA (JAEA)
14:30	Role of explosive instabilities in high-beta disruptions	Ahmet AYDEMIR (NFRI)
14:50	Enhanced plasma performance by improved plasma magnetics control in KSTAR	Youngmu JEON (NFRI)
15:10	Overview of 2015 KSTAR Modelling TF Activities	Jae-Min KWON (NFRI)

Parallel Oral 1B**(Diagnostics Research)****Rm.101, 102****Chair : Gunsu Yun (POSTECH)**

13:30 (inv.)	Beam Emission Spectroscopy diagnostics on KSTAR	Sandor ZOLETNIK (WIGNER)
14:00 (inv.)	Bayesian modelling of spectrum data: JET Li-BES system	Young-Chul GHIM (KAIST)
14:30	Diagnostics of Plasma Densities by Laser-produced THz Waves	Hyyong SUK (GIST)
14:50	Spatial and temporal scales of ion-scale turbulence in L-mode discharges	Woochang LEE (UNIST)
15:10	A Novel Multi-Pass Scheme for Subtracting Stray Light Noise in Thomson Scattering Signal by Using a 45o Faraday Rotator	Wha-Keun AHN (Sogang U)

Parallel Oral 1C**(Fusion Engineering)****Rm.105, 106****Chair : Hee-Jae Ahn (NFRI)**

13:30 (inv.)	Improved 1-d thermo-hydraulic solver of cryogenic loop for CICC magnet system	Dong Keun OH (NFRI)
14:00 (inv.)	Implementation of Forced Landing Scheme under Abnormal Event in KSTAR	MinHo WOO (NFRI)
14:30	Upgrade of Quench Detection System for the KSTAR CS Coil	Yong CHU (NFRI)
14:50	Issues and status of ITER neutronics and radiation hardness	YoungHwa AN (NFRI)
15:10	Analysis of Delay Time Distribution for Argon Plasma Discharge Using Sub-THz Waves of Gyrotron	Dongsung KIM (UNIST)

15:30-
15:50**Coffee Break**15:50-
18:00**Poster Session1****※ Poster attachment before 13:30****(List of presentations is on page 13)****Rm.103, 104****Satellite Meeting 1****Rm.105, 106****Fusion & Accelerator Test and Evaluation Facility Build-Up Meeting**

- 15:50-18:00
- Contact : I.H. Gim(inhogim@nfri.re.kr)

18:30 –

Welcome Dinner (HOSTED BY NFRI)**ICC HOTEL**
(Map is on page 18)

February 25th, Thursday

Plenary Session 2

Conference room (301)
Chair : Won-Ho Choe (KAIST)

09:10	Systematic 3D Field Optimization with General Perturbed Equilibrium Code in KSTAR	Jong-Kyu PARK (PPPL)
09:45	Influence of zonal flows on dynamical processes in tokamak plasmas : Perspectives from turbulence simulations	Hogun JHANG (NFRI)

10:20-10:40	Coffee Break	
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Parallel Oral 2A

(Experiments & Theory)

Conference room (301)
Chair : Oh-Jin Kwon (Daegu U)

10:40 (inv.)	Numerical calculations of plasma response to external magnetic perturbations in tokamaks	Juhyung KIM (NFRI)
11:10	Electron temperature gradient turbulence driven current in tokamaks	Sumin YI (NFRI)
11:30	ExB Shear and Precession Shear Induced Decorrelation of TEM Turbulence	Gyung Jin Choi (SNU)
11:50	Toward a new MHD code for fusion plasma	Dongsu Ryu (UNIST)

Parallel Oral 2B

(Diagnostics Research)

Rm.101, 102
Chair : Young-Chul GHIM (KAIST)

10:40 (inv.)	Status of Current Density Profile Measurements for KSTAR	Jinseok KO (NFRI)
11:10	Improvements on Design of the W/F-band Antenna Detector Array for the KSTAR ECEI System	Kang-wook KIM (Kyungpook U)
11:30	Progress and Results of the KSTAR Far Infrared Interferometer in 2015	June-Woo Juhn (NFRI)
11:50	Real time density feedback control system using ITER CODAC technologies	Woongryol LEE (NFRI)

Parallel Oral 2C

(ITER/DEMO)

Rm.105, 106
Chair : Hyeon Gon LEE (NFRI)

10:40 (inv.)	Current Status of Korean Helium Cooled Ceramic Reflector Test Blanket Module Program	SeungYon CHO (NFRI)
11:10	Introduction of ITER hydrogen isotopes recovery technologies	P.K. JUNG (Daesung Ind.)

11:30	Qualification Status of Ultrasonic Examination of ITER VV	GwangHo KIM (NFRI)
11:50	Comparison study on the main neutronic parameters of the K-DEMO using MCNP and ATTILA	JongSung PARK (NFRI)

12:10-13:30	Lunch Break (SELF HOSTED)	
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Parallel Oral 3A
(Experiments & Theory)

Conference room (301)
Chair : Ahmet AYDEMIR (NFRI)

13:30 (inv.)	Nonlinear interaction of ELM and edge turbulence during ELM-crash-suppression under n=1 RMP	Jaehyun LEE (POSTECH)
14:00 (inv.)	Numerical study of single and two-fluid linear response to non-axisymmetric fields in KSTAR	Gunyoung PARK (NFRI)
14:30	Characteristics of magnetic braking depending on 3D field configuration in KSTAR	Kimin KIM (KAIST)
14:50	Distinct dynamics of edge-localized modes in KSTAR	Gunsu Yun (POSTECH)
15:10	Correlation between macroscopic effects (Non-local heat transport, rotation reversals and impurity transport) and micro fluctuation characters in KSTAR L-mode plasmas	Yuejiang SHI (SNU)

Parallel Oral 3B
(PWI & Material)

Rm.101, 102
Chair : Ho Sun Lee (KyungHee Univ.)

13:30 (inv.)	Heat and Particle Load on PFCs in KSTAR	Suk-ho HONG (NFRI)
14:00 (inv.)	Shielding and amplification of non-axisymmetric divertor heat flux by applied 3-D fields in KSTAR	Joon-Wook Ahn (ORNL)
14:30	Erosion and deuterium retention in tungsten exposed to KSTAR and EAST plasmas	Jing WU (ASIPP)
14:50	Divertor infra-red TV system for the thermographic studies of outer target heat fluxes on KSTAR	Hyungho LEE (NFRI)
15:10	Mitigation of Argon Core Accumulation by ECH and Its Effects on Impurity Transport in KSTAR H-mode Plasmas	Joohwan Hong (KAIST)

Satellite Meeting 2

Rm.105, 106

Introduction to ITER Organization Job Opening • 13:30 -14:30
ITER Technology Workshop • 14:30-18:00 • Contact : H. G. LEE (hglee@nfri.re.kr)

15:30- 15:50	Coffee Break
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15:50- 18:00	Poster Session2 <i>✂ Poster attachment before 13:30</i> <i>(List of presentations is on page 13)</i>	Rm.103, 104
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February 26th, Friday

Parallel Oral 4A (Experiments & Theory)		Conference room (301) Chair : Yeong-Kook Oh (NFRI)
09:10 (inv.)	Heat pulse propagation experiments with a two-dimensional electron cyclotron emission diagnostic in KSTAR	Tatsuya KOBAYASHI (NIFS)
09:40	Operational Boundary of high beta long-pulse discharges at KSTAR	Siwoo YOON (NFRI)
10:00	Helical electric potential modulation via Zonal Flow coupling to Resonant Magnetic Perturbations	Michael Leconte(NFRI)
10:20	Plasma Start-up Experiment using Trapped Particle Configuration in KSTAR	Jeongwon LEE (SNU)

Parallel Oral 4B (Heating & CD)		Rm.101, 102 Chair : Jong Gu Kwak (NFRI)
09:10 (inv.)	Design Study of a 2-Channel Steady-State ECH Launcher	Robert ELLIS (PPPL)
09:40	NBI-2, next NBI system for efficient heating and off-axis current drive in KSTAR high beta plasmas	Sonjong WANG (NFRI)
10:00	Real-Time Neoclassical Tearing Mode Control System using ECRH/ECCD in KSTAR and 2015 Experimental Results	Mi JOUNG (NFRI)
10:20	High power helicon wave current drive system in KSTAR	Haejin KIM (NFRI)

Parallel Oral 4C
(Fusion Engineering)

Rm.105, 106
Chair : SeungYon CHO (NFRI)

09:10 (inv.)	Development of Tungsten Based High Entropy Alloys with Enhanced High Temperature Mechanical Properties	Ho Jin RYU (KAIST)
09:40	Alloy Design of Advanced RAFM steels for DEMO	Chang-Hoon LEE (KIMS)
10:00	Hardening effect by manipulating configurational entropy in W-based single solid solutions	Ilhwan KIM (SNU)
10:20	Fabrication of Tube-Shaped and Large-Sized Planar SiCf/SiC Composites Using Electrophoretic Deposition and Hot-pressing	Kati Raju (Yeungnam U)

10:40- 11:00	Coffee Break
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Plenary Session 3 & Closing

Conference room (301)
Chair : Taik Soo Hahm (NFRI/SNU)

11:00	Rotation and momentum transport in tokamaks and helical systems	Katsumi IDA (NIFS)
11:35	Vision of the KSTAR Research for beyond the ITER	Hyeon K. PARK (NFRI/UNIST)
12:10	Closing Address	

Satellite Meeting 3

NFRI HQ Rm. 326

New Thomson Polychromator System Mini Workshop

- 14:00 -
- Contact : J. H. LEE (jhlee@nfri.re.kr)

※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)

SATELLITE MEETINGS

- **Fusion & Accelerator Test and Evaluation Facility Build-Up Meeting**

- ✓ Time : Feb.24th(Wednesday) 16:00~18:00
- ✓ Place : Room 105, 106
- ✓ Contact : I.H. Gim (inhogim@nfri.re.kr)

- **ITER Technology Workshop**

- ✓ Time : Feb.25th(Thursday) 13:30~18:00
- ✓ Place : Room 105, 106
- ✓ Contact : H. G. LEE (hglee@nfri.re.kr)

- **New Thomson Polychromator System Mini Workshop**

- ✓ Time : Feb.26th(Friday) 14:00~
- ✓ Place : NFRI HQ Room 326
- ✓ Contact : J. H. LEE (jhlee@nfri.re.kr)

POSTER PRESENTATION

Poster Session 1 (Feb. 24th 15:50-18:00)			Rm. 103, 104
<i>[Notice] Poster Attachment(at lunch break) & Detachment(at after poster Session)</i>			
No.	Name	Affiliation	Title
P1-1	Yoo-soon Chang	Ajou Univ.	Measurement of temperature and velocity of main ion in KSTAR plasma
P1-2	Bongki Jung	KAERI	Design and preliminary results of the pulse power supply for the VEST NBI system
P1-3	Min Park	KAERI	Preliminary characterization of a Cs-free RF negative hydrogen ion source in KAERI
P1-4	Sun-Ho Kim	KAERI	Development Status of a RF System Components for Lower Hybrid Fast Wave Current Drive Experiment on VEST
P1-5	Wonwook Lee	KAERI	Optical diagnostics for low density helium plasma
P1-6	Kim yeonjin	KAERI,UST	Characteristics of pressure and temperature variation in a DU bed system
P1-7	Inwoo Song	KAIST	Tangentially-reconstructed 2-D KSTAR plasma images by gas electron multiplier detector (GEM) tangential X-ray pinhole camera
P1-8	Jaewook Kim	KAIST	How to generate proper synthetic data to investigate characteristics of fluctuating quantities
P1-9	Juhyeok Jang	KAIST	Tangentially-reconstructed 2-D total radiation image from KSTAR imaging bolometer
P1-10	Taesuk Oh	KAIST	Analysis of Rayleigh calibration signal for 2015 KSTAR Thomson Scattering system
P1-11	Changrae Seon	NFRI	VUV Spectroscopy in Impurity Injection Experiments at KSTAR using ITER Prototype VUV Spectrometer
P1-12	Chansoo Kang	NFRI	Development of a multi-dimensional heat conduction solver for the KSTAR infrared thermography
P1-13	Jinil Chung	NFRI	Initial operation of a new multichord motional Stark effect diagnostic in KSTAR
P1-14	Jong-ha Lee	NFRI	Development of hybrid type polychromator system to measuring Thomson and bremsstrahlung signals
P1-15	Jun-Gyo BAK	NFRI	New Magnetic Probes for Non-axisymmetric Magnetic Perturbation Measurements in the KSTAR tokamak
P1-16	Kiyong Lee	NFRI	High resolution Thomson scattering system
P1-17	Kwan Chul Lee	NFRI	Design of Two Color Interferometer (TCI) system on KSTAR
P1-18	Kyu-Dong Lee	NFRI	Development of W-band ECE radiometer for electron temperature profile measurement at KSTAR
P1-19	Seong-Heon Seo	NFRI	The investigation of pressure profile evolution during RMP injection by using reflectometer and ECE radiometer
P1-20	Seung Hun, LEE	NFRI	Signal estimation of KSTAR Thomson scattering diagnostic system and statistical analysis for plasma parameter calculation
P1-21	Seungtae Oh	NFRI	KSTAR Application for Fast Neutron Radiography

P1-22	Yong Un Nam	NFRI	Measurements Results of Profile Diagnostics in KSTAR
P1-23	MunSeong Cheon	NFRI	Neutron diagnostics in 2015 KSTAR campaign
P1-24	Jawon Jo	POSTECH	Semi-analytic emissivity function of high-harmonic electron cyclotron emission in tenuous plasma
P1-25	JUNE-EOK, LEEM	POSTECH	System status of KSTAR 2D Microwave Imaging Reflectometry (MIR)
P1-26	Yoonbum Nam	POSTECH	Improved LO optics for KSTAR ECEI system
P1-27	Yoonbum Nam	POSTECH	Design of ECEI system for WEST tokamak
P1-28	Jungmin Jo	Seoul National Univ.	D-T neutron measurement result in KSTAR deuterium plasmas
P1-29	KIM YOUNG-GI	Seoul National Univ.	Development of Multi-pass Thomson Scattering Diagnostic System for VEST
P1-30	Kyoungsoo Chung	Seoul National Univ.	Plasma flow measurements with a Mach probe in magnetic nozzle geometries
P1-31	Wha-Keun Ahn	Sogang Univ.	A Closed Path Roundtrip Scheme for Rejecting Stray Light Noise in Thomson Scattering Signal
P1-32	Maximilian Messmer	TU/E	Real-time MSE data analysis feasibility study
P1-33	Pravesh Dhyani	UNIST	Fluctuation induced particle flux measurements by microwave imaging reflectometry in KSTAR plasma
P1-34	Woo-Jun Byeon	Dankook Univ.	Deuterium beam characteristics of an ICP source for TDS studies of fusion materials
P1-35	Hyunsun Han	NFRI	Versatile controllability of non-axisymmetric magnetic perturbations in KSTAR
P1-36	yeon-jung Kim	NFRI	Hardware loop-back test of new MRG-R(64bit) KSTAR plasma control system
P1-37	Giwook Shin	NFRI, UST	Automatic Estimation of L/H transition Time in KSTAR by Using Support Vector Machine
P1-38	Dennis Mueller	PPPL	Improvement of fast vertical control on KSTAR
P1-39	Hirofumi YONEKAWA	NFRI	Experimental Feasibility Study of a Quench Detection System Based on CDA+MIK for the KSTAR CS1 Superconducting Coils
P1-40	Hyun-Jung Lee	NFRI	Dynamic simulation of a supercritical helium circulator circuit for transient event
P1-41	Kim, Hee soo	NFRI	Radiation Safety of The KSTAR 2015 Campaign
P1-42	LEE Hyunmyung	NFRI	Results of the vacuum pumping system on the KSTAR 8th campaign
P1-43	Nam Won, KIM	NFRI	Maintenance of the Compressor System and Commissioning Result of 1kW Helium Refrigeration System
P1-44	Song Jaein	NFRI	Operational Results of the Upgraded KSTAR Fueling System
P1-45	Dong Keun Oh	NFRI	Introduction to an interactive data-handling platform for KSTAR experiment
P1-46	Hyungjun Kim	Yonsei Univ.	Analysis of Charge-discharge Characteristics of Superconducting Magnets in Fusion Experiments
P1-47	Jinsub Kim	Yonsei Univ.	Simulation of current distribution for stacked multi strands HTS current lead under local quench condition

P1-48	Kim Hyun-Soo	NFRI	Manufacturing status of the ITER Vacuum Vessel Ports in Korea
P1-49	Min-Su Ha	NFRI	Structural Analysis for Final Design of ITER Sector Sub-assembly Tool
P1-50	Noh Chang Hyun	NFRI	Design and analysis for the ITER thermal shield manifold
P1-51	Yeongsu JUNG	NFRI	Lessons Learned from ASN Inspection at HHI Premises
P1-52	Dae-Young Eom	NFRI	Operation result of 2015 motor generator power system
P1-53	Hyun Kook Shin	NFRI	The Result of MCS FAT for ITER CCPS Converter Systems
P1-54	Jae-Hak Suh	NFRI	Control and Interlock Process of ITER AC/DC Converter
P1-55	Dong Min Kim	Hongik Univ.	Fabrication of hydrogen-isotope barrier layers for fusion materials
P1-56	Yun-Hee Lee	KRISS	Thermophysical and Thermomechanical Properties of Tungsten Alloys
P1-57	Byeongchan Lee	KyungHee Univ.	First-principles calculations of defects in W alloys
P1-58	Dong-you Chung	NFRI	Fabrication of Sievert-type PCI Measuring Apparatus for Depleted Uranium
P1-59	Jein Lee	Seoul National Univ.	Effect of Configurational Entropy on the Mechanical and Thermal Properties of Single Phase FCC Solid Solutions
P1-60	Jinho Ryu	Seoul National Univ.	Effects of lattice defects on diffusivity, solubility and permeability of hydrogen in tungsten
P1-61	Hyung Gyu Lee	Yonsei Univ.	Free surface effect on the number of Frenkel pair in BCC W : Molecular dynamics study
P1-62	Hee-Jin Shim	NFRI	Cumulative Fatigue Assessment for ITER Blanket Shield Block
P1-63	Hun-Chea Jung	NFRI	Investigation of Outgassing for ITER Blanket Shield Block
P1-64	Sei-Hun Yun	NFRI	Uncertainties in ITER SDS Development - Uncertainties for Optimal Design of ITER SDS (II)
P1-65	YoungHwa An	NFRI	Radiation hardness qualification plan for the VUV detector of ITER VUV spectrometers
P1-66	Sung Pil Woo	Yonsei Univ.	Synthesis of Lithium based Metal Oxides (Li-M-O) for Tritium Release in Nuclear Fusion Blanket Materials
P1-67	Sungjin Kwon	NFRI	Thermomechanical comparison between RAFM and CuCrZr heat sink materials for an high heat flux unit of divertor target
P1-68	Jinseop Park	NFRI	IMPROVEMENT NETWORK of KSTAR

Poster Session 2**(Feb. 25th 15:50-18:00)****Rm. 103, 104***[Notice] Poster Attachment(at lunch break) & Detachment(at after poster Session)*

No.	Name	Affiliation	Title
P2-1	Daejun Choi	NFRI	Upgrade of Surge Protection for KSTAR NBI-1
P2-2	Hyunho WI	NFRI	Design of 300 KW traveling wave antenna for KSTAR helicon wave Current Drive
P2-3	In-Hyuk. Rhee	NFRI	Result of the 105/140 GHz ECH Gyrotron commissioning
P2-4	Jeehyun Kim	NFRI	KSTAR LHCD experiment result and the status of Prototype PAM design study
P2-5	Jinhyun Jeong	NFRI	Development of High Voltage Power Supply based on Pulse Step Modulation for the KSTAR 105/140GHz ECH system
P2-6	Jong-Su Kim	NFRI	Operation Results of NBI-1 System in 2015 KSTAR Campaign and Plan of NBI-2 Control System
P2-7	Jongwon Han	NFRI	Current status and upgrade plan of KSTAR ECH system
P2-8	Park hyun taek	NFRI	Operation results of 2015 KSTAR NBI-1 beam line system and design goal of NBI-2 beam line system
P2-9	SangWon Seon	NFRI	Issues on ICRF VFT and Plan for 2016 ICRF experiments
P2-10	Sangwook Jung	NFRI	Simulation for neutral beam transmission with BTR code for KSTAR NBI-2
P2-11	Wook Cho	NFRI	Improvement of Power Supply System for KSTAR NBI-1
P2-12	Jihyun, Hwang	POSTECH	Stability analysis of klystron with multi-cell coupled-cavity
P2-13	Taesik Seong	POSTECH	Mode Converter for Efficiency Improvement of 5-GHz LHCD Transmission-line
P2-14	Kihyun Lee	Seoul National Univ.	Characterization of a compact pulsed plasma source for diagnostic neutral beam injection system of VEST
P2-15	Bosung Kim	Ajou Univ.	Measurement of carbon migration in a baffled duct on a port of KSTAR using quartz microbalance
P2-16	Lee jaeyong	Hanyang Univ.	Plasma decontamination for surface of tungsten used PFC
P2-17	Min-Keun Bae	Hanyang Univ.	Direct measurement of ELM heat fluxes on the KSTAR wall
P2-18	Seok-Kwan Lee	Hanyang Univ.	Desorption dynamics of deuterium in SS316LN
P2-19	Hyunyong Lee	KAIST	Preliminary Results of the Tungsten Injection Experiment in KSTAR
P2-20	HOSUN LEE	KyungHee Univ.	Characteristics of Re-deposited Amorphous Hydrogenated Carbon Layers During KSTAR Campaigns
P2-21	Bin Cao	NFRI	Characteristics of KSTAR type I ELMs in far SOL by using Poloidal Langmuir Probe(PLP)
P2-22	Eunnam Bang	NFRI	Deposition inside the Gap of Castellated Tungsten Blocks

P2-23	Jaemin Song	Seoul National Univ.	Investigation of blister formation on the 2.8 MeV Fe ²⁺ ion irradiated tungsten under the deuterium plasma exposure
P2-24	Ki-Baek Roh	Seoul National Univ.	Analysis of recrystallization depth on surface of tungsten divertor under ELM repetition
P2-25	Younggil Jin	Seoul National Univ.	Analysis of deuterium retention of tungsten installed at KSTAR midplane considering carbon ion implantation
P2-26	ilseo park	Hanyang Univ.	Measurements of the plasma parameters after edge localized mode crash using detachment probe
P2-27	Hyunyong Lee	KAIST	Argon Impurity Transport Study with Resonant Magnetic Perturbation in KSTAR
P2-28	JaeChun Seol	NFRI	Sonic poloidal flow and its effects on the edge stability
P2-29	Jayhyun Kim	NFRI	Control of edge localized mode crashes using a single toroidal row of large aperture magnetic perturbation coils in KSTAR
P2-30	Junghee Kim	NFRI	Experimental observations of beam-driven Alfvén eigenmodes and chirping modes in KSTAR
P2-31	KIM, HYUNSEOK	NFRI	Characteristics of global energy confinement in KSTAR H-mode plasmas
P2-32	Minjun J. Choi	NFRI	2-D characteristics of high m mode driven by core temperature gradient
P2-33	Sehoon Ko	NFRI	Characteristics of toroidal rotation and ion temperature pedestals between ELM bursts in KSTAR H-mode plasmas
P2-34	Soohyun Son	NFRI	Comparison of Low and High Z Impurity Ingress in H-mode Discharges by Visible Emission Spectroscopy
P2-35	Won-Ha Ko	NFRI	The characteristics of H-mode threshold power and confinement by non-axisymmetric magnetic fields in KSTAR
P2-36	Jun Young Kim	NFRI, UST	Effect of plasma rotation on fast ion loss during RMP
P2-37	MOON, Chanho	NIFS	Study of Coalescence MHD Instabilities of Magnetic Islands in the Stochastic Region of LHD Plasmas
P2-38	Anuraj Panwar	POSTECH	Coupling of whistler waves to ion temperature gradient modes
P2-39	Gyuenghyuen Choe	POSTECH	Localized electron heating and current drive on slow sawtooth relaxation
P2-40	Haider Rizvi	POSTECH	NBI fast particle driven TAEs in KSTAR plasmas
P2-41	Jieun Lee	POSTECH	Outward transition of edge-localized modes in the inter-crash period of H-mode plasma
P2-42	Jihun A. Lee	POSTECH	Quasi-coherent mode observation in KSTAR ohmic plasmas with microwave imaging reflectometry
P2-43	Muhammad Khawar Ayub	POSTECH	Simultaneous measurement of the radial size and density perturbation amplitude of edge-localized modes
P2-44	Gnan Kim	POSTECH	Imaging of disruption by coupled tearing modes in KSTAR
P2-45	Shekar Thatipamula	POSTECH	Dynamic spectra of radio frequency bursts associated with edge-localized modes
P2-46	DongHyeon Na	Seoul National Univ.	Rotation Reversal in KSTAR and Its Turbulence and Transport characteristics
P2-47	Jeong-hoon Son	Seoul National Univ.	Alteration of Low Density Operation Range by RMP in KSTAR
P2-48	SANGKYEUN KIM	Seoul National Univ.	Effect of Plasma Parameters on the Behaviour of Edge Pedestal

P2-49	Seong-cheol Kim	Seoul National Univ.	Operational schemes for diverted plasmas in VEST
P2-50	SeongMoo, Yang	Seoul National Univ.	Perturbative analysis using NBI and RMP modulation for momentum transport in KSTAR
P2-51	JOUNG, SEMIN	KAIST	Plasma equilibrium reconstruction for real-time control using artificial neural network in KSTAR
P2-52	Kimin Kim	KAIST	Simulation of magnetic field line splitting by non-axisymmetric magnetic fields in KSTAR
P2-53	Kyuho Kim	KAIST	Turbulent and Neoclassical Impurity Transport in the Full-f Gyrokinetic code XGC1
P2-54	Helen H. Kaang	NFRI	Impact of zonal flows on edge pedestal collapse
P2-55	Insik Choi	NFRI	Fixed Boundary Grad-Shafranov Solver
P2-56	Insik Choi	NFRI	Design of Plasma Shape Control in Tokamak Operation
P2-57	Jae-Min Kwon	NFRI	New Mass Conserving Semi-Lagrangian Scheme for Plasma Turbulence Simulation in Toroidal Geometry
P2-58	Jun Ho Yeom	NFRI	Validation of Free Boundary Equilibrium Reconstruction Code from KSTAR Experimental Data
P2-59	Lei Qi	NFRI	Gyrokinetic simulations of electrostatic microinstabilities with bounce-averaged kinetic electrons for shaped tokamak plasmas
P2-60	Laurent JUNG	NFRI	Introduction to INFRA: The integrated tokamak simulator for K-DEMO
P2-61	Tongnyeol Rhee	NFRI	Analysis for prompt loss of neutral beam injection in terms of momentum phase space
P2-62	Mohsan Shahzad	POSTECH	Linear global study of critical EP density gradient to excite the TAE gap mode at discrete rational surfaces in KSTAR Tokamak plasmas
P2-63	Mykhaylenko Volodymyr	Pusan National Univ.	The effect of the shear flow across the magnetic field on the temporal evolution of the ion temperature
P2-64	Mykhaylenko(Mikhailenko) Vladimir St.	Pusan National Univ.	Ion kinetic effects in plasma shearing flows
P2-65	YoungWoo Cho	Seoul National Univ.	In-Out Asymmetry of Zonal Flow Shear and Turbulence Reduction
P2-66	An Chan-Yong	Soongsil Univ.	Study of the phase correlation between plasma fluctuations in the resistive electromagnetic turbulence
P2-67	Byunghoon Min	Soongsil Univ.	Study of phase correlations between the potential and the pressure fluctuations in the electrostatic
P2-68	Minwoo Kim	UNIST	Linear/nonlinear ELM simulation using BOUT++ and M3D-C1 in KSTAR ELM H-mode plasma
P2-69	KIM Chang Shuk	NFRI	Neutron Diagnostics using Compton Suppression Gamma-ray Spectrometer
P2-70	Dongcheol Seo	NFRI	Improvement of IRTV Lens system for heat flux measurement

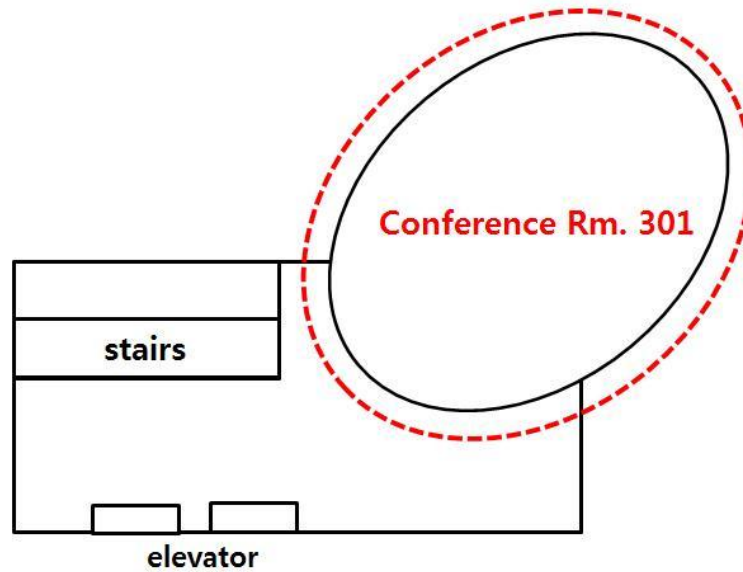
※Guidance for Poster Speakers.

- Official Language: English

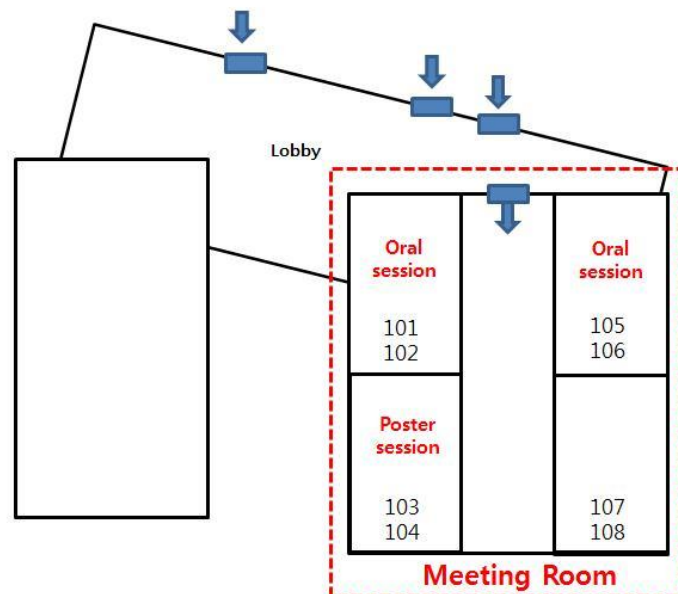
- Poster Size : A0 (841X1,189mm) or equivalent
- Poster Attachment and Detachment
 - Attachment : at lunch time
 - Detachment : after poster presentation
- Stationery for attaching will be prepared in the Rm.103.
- Each poster has been assigned a number, and must be mounted on the appropriately numbered board. Please check number.

DCC Floor Plan

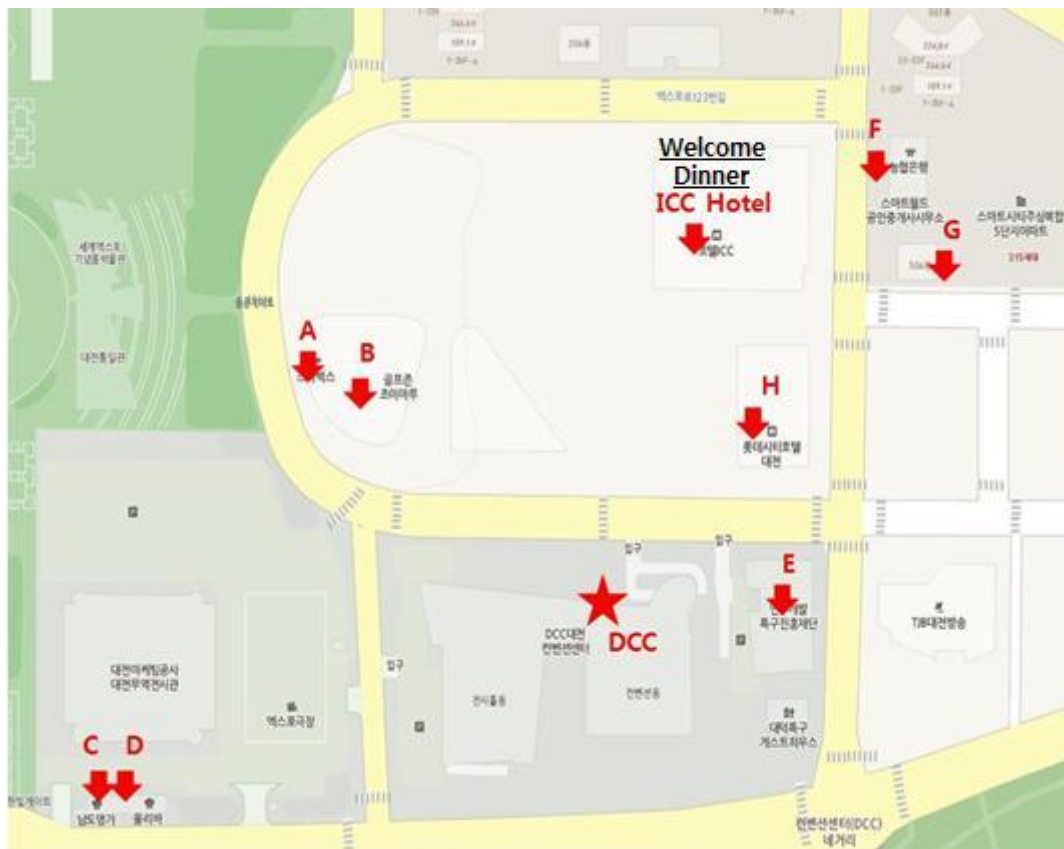
3F



1F



※ Map for Welcome Dinner & Self-Hosted Lunch



- Welcome Dinner : ICC Hotel

: The ICC hotel is located behind the Lotte Hotel
(300 meters from DCC)

- Restaurant nearby DCC

A: Starbucks

B: Restaurant (Italian food) : KRW 15,000~25,000

C: Restaurant (Korean food) : KRW 8,000~15,000

D: Restaurant (Korean food) : KRW 8,000~15,000

E: cafeteria (Korean food) : KRW 4,000~5,000

F: Restaurant (Korean food) : KRW 5,000~10,000

G: Restaurant (Italian food) : KRW 15,000~25,000

H: Restaurant (Buffet- Lotte Hotel) : KRW35,000

※Public Transportation To DCC

- DCC located 270 km away from Incheon Airport (ICN). Limousine shuttle bus takes about 3 hours from ICN to Daejeon Government Complex near DCC. The Korean Train Express (KTX) takes about 2 hours from ICN to Daejeon station and subway will takes about 20 min from Daejeon station to Daejeon Government Complex. A taxi should not take more than 10 minute from Government Complex to DCC.

※Parking at DCC

- Parking in the underground car parking area in the DCC.
- Show your conference badge at the exit.