

## Program

\*\*\*\*\*September 24\*\*\*\*\*

**Registration** 17:00

\*\*\*\*\*September 25\*\*\*\*\*

**Opening Remarks** 8:30

**Session 1** 8:40 - 10:10 (LHD )

S. Sudo /NIFS (30) ----- 1  
 Overview of LHD Diagnostics

Y. Nakamura /NIFS (20) ----- 18  
 Progress in Steady State Experiments on LHD

K. Tanaka /NIFS (20) ----- 26  
 Multi Channel Far Infrared Interferometer on LHD

I. Yamada /NIFS (20) ----- 34  
 LHD YAG Thomson Scattering System

**Coffee Break** 10:10 - 10:30

**Session 2** 10:30 - 12:15 (KSTAR )

G.S.Lee /KBSI (30) ----- 49  
 Current Status of KSTAR Project

M. Kwon /KBSI (30) ----- 71  
 Development of KSTAR Diagnostics for the Advanced Tokamak Operation

H. K. Na /KBSI (15) ----- 83  
 Basic Optical Diagnostics of KSTAR

S. J. Yoo /KBSI (15) ----- 94  
 Design Study of Active Beam Spectroscopic Diagnostics for KSTAR

H. G. Lee /KBSI (15) ----- 103  
 Design Study of Laser-Aided Diagnostics for KSTAR

**Lunch Break** 12:15 - 13:30

**Session 3** 13:30 - 15:35 (JT-60, TRIAM, KAIST & Particle Diagnostics)

T. Sugie /JAERI (30) ----- 111  
 Diagnostics of JT-60U

M. Sakamoto /Kyushu Univ. (30) ----- 123  
 New Results From the Superconducting Tokamak TRIAM-1M

W. Choe /KAIST (20) ----- 135  
 KAIST-TOKAMAK Research Activities

T. Ozaki /NIFS (15) ----- 144  
 Preliminary Results of the Neutral Particle Measurements in Large Helical Device

M. Isobe /NIFS (15) ----- 156  
 Lost Fast Ion Measurements in NB-heated Plasmas of CHS

T. Ido /NIFS (15) ----- 162  
 The Heavy Ion Beam Probe System in JFT-2M Tokamak

**Coffee Break** 15:35 - 15:55

<b>Session 4</b>	15:55 - 17:35 (Optical Diagnostics)	
K. Ida /NIFS (20)	-----	165
Charge Exchange Spectroscopy in LHD		
K. Kondo /Kyoto Univ. (20)	-----	173
Core and Edge Spectroscopy in Long Pulse Plasmas		
T. Nakano /JAERI (15)	-----	187
Impurity Behavior in JT-60U		
M. Goto /NIFS (15)	-----	192
Hydrogen and Helium Spectroscopy for LHD Plasma		
N. Ashikawa /NIFS (15)	-----	196
Development of Imaging Bolometers for Steady-State Measurement of High Temperature Plasma		
N. Tamura /NIFS (15)	-----	202
Measurement of Particle Transport in LHD Using Tracer-Encapsulated Solid Pellet		
<b>Banquet</b>	18:30 - 20:30	

\*\*\*\*\*September 26\*\*\*\*\*

<b>Session 5</b>	8:30 - 10:15 (IR, FIR & Microwave Diagnostics)	
K. Ishii /Tsukuba Univ. (20)	-----	210
Particle Diagnostics with Emphasis on Potential Measurement in the Tandem Mirror		
S. Okajima /Chubu Univ. (20)	-----	225
Development of cw FIR Lasers for High Density Plasma Diagnostics		
A. Mase /Kyushu Univ. (20)	-----	237
Application of ECE Imaging System to LHD		
Y. Nagayama /NIFS (15)	-----	246
Calibration of ECE on LHD		
S. Inagaki /NIFS (15)	-----	249
ECE Behavior in the Pellet Injected Plasma		
S. H. Jeong /KAERI (15)	-----	253
ECE Diagnostics on KSTAR		
<b>Coffee Break</b>	10:15 - 10:35	
<b>Session 6</b>	10:35 - 11:55 (IR, FIR & Microwave Diagnostics )	
Y. Kawano /JAERI (20)	-----	261
Advanced Interferometry and Polarimetry in JT-60U		
T. Akiyama /Tokyo Institute of Technology (15)	-----	281
Faraday Rotation Densitometry Using CO <sub>2</sub> Laser for LHD		
H. Hojo /Tsukuba Univ. (15)	-----	286
Ultrashort-Pulse Reflectometry and GAMMA 10 Experiments		
T. Tokuzawa /NIFS (15)	-----	294
Reflectometer for Density Profile and Fluctuation Measurements in LHD		
A. Balandin /Univ. Tokyo (15)	-----	301
3-D Tomography Diagnostics		
<b>Lunch Break</b>	11:55 - 13:30	

<b>Session 7</b>	13:30 - 15:00	(X-ray Diagnostics)	
A. Ohdachi /NIFS	(15)	-----	306
Soft X-ray Measurements in Large Helical Device			
Y. Liu /Southwestern Institute of Physics, China	(15)	-----	319
Soft X-ray Tomography on Heliotron J Based on Magnetic Flux Surfaces			
Y. Liang /NIFS		-----	326
Soft X-ray Imaging by Using CCD Camera (15)			
S. G. Lee /KBSI	(15)	-----	332
Magnetic Diagnostics for KSTAR Project			
S. G. Lee /KBSI & R. More /NIFS	(15)	-----	349
X-ray Tube with a Line Focus: Experiment and Analysis			
H. Nozato /Univ. of Tokyo.	(15)	-----	357
Soft X-ray Spectromermeasurements Using the Multilayer Mirror			
<b>Coffee Break</b>	15:00 - 15:20		

<b>Session 8</b>	15:20 - 17:15	(Probes ,Data Processing & Machine Control)	
K.S.Chung /Hanyang Univ.	(15)	-----	362
Simultaneous Measurement of Shear Viscosity and Flow Velocity in Tokamak Edge Plasmas			
K. Hattori /Tohoku Univ.	(15)	-----	375
Micro-Magnetic-Probe Array for MHD Studies in the HITOP Plasma			
S. Tsuji-Iio /Tokyo Institute of Technology	(15)	-----	384
Magneto-Optic Magnetic Field Sensor for Fusion Devices			
Y. Nagashima /Univ. of Tokyo	(15)	-----	392
The Reciprocating Probe on JFT-2M Tokamak			
H. Nakanishi /NIFS	(20)	-----	397
Design for Real-Time Data Acquisition System Using Streaming Technology			
Y. S. Hwang /Seoul National Univ.	(20)	-----	401
Modified Neural Network Concept for Reliable Plasma Control			
I. Viniar /PELIN Labo. , Russia	(15)	-----	412
Pellet Injectors for Steady State Plasma Fueling			

**Dinner** 18:30 - 20:30

\*\*\*\*\*September 27\*\*\*\*\*

<b>Closing Remarks</b>	8:30 - 9:30	-----	417
Y. Nagayama /NIFS			
G. S. Lee /KBSI			
S. Sudo /NIFS			

JKS Award & Closing Ceremony

**Check Out** 10:00