

APPENDIX 5. List of Publications I (NIFS Series)

- NIFS-960 H. Sugama, T.-H. Watanabe, M. Nunami and S. Nishimura
Momentum Balance and Radial Electric Fields in Axisymmetric and Nonaxisymmetric Toroidal Plasmas
July 14, 2010
- NIFS-961 Y. Hamada, T. Watari, A. Nishizawa, O. Yamagishi, K. Narihara, K. Ida, Y. Kawasumi, T. Ido, M. Kojima, K. Toi and JIPPT-IIU Group
Detection of Kinetic Geodesic Acoustic Mode (KGAM) near the Center Region of JIPPT-IIU Tokamak Plasmas
Aug. 03, 2010
- NIFS-962 Yamada, H
Overview of Results from the Large Helical Device
Nov. 2010
- NIFS-963 T. Morisaki, M. Goto, R. Sakamoto, J. Miyazawa, S. Masuzaki, G. Motojima, M. Kobayashi, K. Tanaka, Y. Suzuki, N. Ohyabu, H. Yamada, A. Komori and LHD Experiment Group
Progress of Superdense Plasma Research in LHD: Sustainment and Transport Study
Nov. 2010
- NIFS-964 S. Inagaki, N. Tamura, T. Tokuzawa, K. Ida, T. Shimosuma, S. Kubo, H. Tsuchiya, Y. Nagayama, K. Kawahata, S. Sudo, K. Itoh, S.-I. Itoh and LHD Experimental Group
Radial Structure of Fluctuation in Electron ITB Plasmas of LHD
Nov. 2010
- NIFS-965 M. Yoshinuma, K. Ida, M. Yokoyama, C. Suzuki, M. Osakabe, H. Funaba, K. Nagaoka, S. Morita, M. Goto, N. Tamura, S. Yoshimura, Y. Takeiri, K. Ikeda, K. Tsumori, H. Nakano, O. Kaneko, and LHD Experiment Group
Impurity transport of ion ITB plasmas on LHD
Nov. 2010
- NIFS-966 K. Nagaoka, K. Ida, M. Yoshinuma, Y. Takeiri, M. Yokoyama, S. Morita, K. Tanaka, T. Ido, A. Shimizu, N. Tamura, H. Funaba, S. Murakami, K. Ikeda, M. Osakabe, K. Tsumori, H. Nakano, O. Kaneko and LHD experiment group
Heat and Momentum Transport of Ion Internal Transport Barrier Plasmas on Large Helical Device
Nov. 2010
- NIFS-967 A. Shimizu, T. Ido, M. Nishiura, S. Nakamura, M. Nakamura, H. Nakano, M. Yokoyama, N. Tamura, H. Takahashi, Y. Yoshimura, S. Kubo, T. Shimosuma, H. Igami, K. Ida, M. Yoshinuma, K. Nagaoka, I. Yamada, K. Narihara, K. Tanaka, K. Kawahata, S. Kato and LHD Group
Experimental Study of Potential Profile Formation in Large Helical Device
Nov. 2010
- NIFS-968 H. Funaba, K. Y. Watanabe, S. Sakakibara, S. Murakami, I. Yamada, K. Narihara, K. Tanaka, T. Tokuzawa, M. Osakabe, Y. Narushima, S. Ohdachi, Y. Suzuki, M. Yokoyama, Y. Takeiri, H. Yamada, K. Kawahata, and LHD Experiment Group
Local Transport Property of Reactor-Relevant High-Beta Plasmas on LHD
Nov. 2010
- NIFS-969 S. Kitajima, H. Takahashi, K. Ishii, J. Sato, T. Ambo, M. Kanno, A. Okamoto, M. Sasao, S. Inagaki, M. Takayama, S. Masuzaki, M. Shoji, N. Ashikawa, M. Tokitani, M. Yokoyama, Y. Suzuki, T. Shimosuma, T. Ido, A. Shimizu, Y. Nagayama, T. Tokuzawa, K. Nishimura, T. Morisaki, S. Kubo, H. Kasahara, T. Mutoh, H. Yamada, Y. Tatematsu and LHD experimental group
Electrode Biasing Experiment in the Large Helical Device
Nov. 2010
- NIFS-970 H. Takahashi, T. Shimosuma, S. Kubo, I. Yamada, S. Muto, M. Yokoyama, H. Tsuchiya, T. Ido, A. Shimizu, C. Suzuki, K. Ida, S. Matsuoka, S. Satake, K. Narihara, N. Tamura, Y. Yoshimura, H. Igami, H. Kasahara, Y. Tatematsu, T. Mutoh and the LHD experiment group
High Te, low collisional plasma confinement characteristics in LHD
Nov. 2010

- NIFS-971 N. Tamura, K. Ida, S. Inagaki, H. Tsuchiya, T. Tokuzawa, K. Tanaka, H. Takahashi, T. Shimozuma, S. Kubo, Y. Nagayama, K. Kawahata, S. Sudo, K. Itoh, H. Yamada and LHD Experiment Group
Edge-Core Interaction Revealed with Dynamic Transport Experiment in LHD
Nov. 2010
- NIFS-972 M. Kobayashi, S. Morita, C.F. Dong, Y. Feng, S. Masuzaki, M. Goto, T. Morisaki, H.Y. Zhou, H. Yamada and the LHD experimental group
Edge Impurity Transport Study in Stochastic Layer of LHD and Scrape-off Layer of HL-2A
Nov. 2010
- NIFS-973 E.A. Drapiko, B.J. Peterson, M. Kobayashi, S. Masuzaki, T. Morisaki, M. Shoji, M. Tokitani, N. Tamura, S. Morita, M. Goto, S. Yoshimura, J. Miyazawa, N. Ashikawa, D.C. Seo, H. Yamada and the LHD Team
Effect of magnetic island on three-dimensional structure of edge radiation and its consequences for detachment in LHD (EX-D)
Nov. 2010
- NIFS-974 T. Hino, N. Ashikawa, Y. Yamauchi, Y. Nobuta, Y. Matsunaga, S. Masuzaki, A. Sagara, A. Komori and LHD Experimental Group
Investigation of the toroidal and poloidal dependences of first wall conditions in the Large Helical Device
Nov. 2010
- NIFS-975 Y. Oya, N. Ashikawa, K. Nishimura, A. Sagara and K. Okuno
Impurity effects on hydrogen isotope retention in boronized wall of LHD
Nov. 2010
- NIFS-976 K. Ida, N. Tamura, H. Tsuchiya, S. Inagaki, T. Kobayashi, M. Yoshinuma, C. Suzuki, Y. Suzuki, Y. Narushima, T. Shimozuma, S. Kubo, H. Takahashi, LHD experiment group
Evidence of Stochastic Region near a Rational Surface in Core Plasmas of LHD
Nov. 2010
- NIFS-977 S. Masamune, K.Y. Watanabe, S. Sakakibara, Y. Takemura, F. Watanabe, S. Ohdachi, K. Toi, H. Tsuchiya, Y. Nagayama, Y. Narushima and LHD experiment group
Mode structure of global MHD instabilities and its effect on plasma confinement in LHD
Nov. 2010
- NIFS-978 S.Sakakibara, S.Ohdachi, K.Y.Watanabe, Y. Suzuki, H.Funaba, Y.Narushima, K.Ida, H. Chikaraishi, K.Toi, I.Yamada, K.Narihara, K.Tanaka, T.Tokuzawa, K.Kawahata, H.Yamada, A.Komori and LHD Experiment Group
Exploration of optimal high-beta operation regime by magnetic axis swing in the Large Helical Device
Nov. 2010
- NIFS-979 Y. Narushima, F. Castejón, S. Sakakibara, K. Y. Watanabe, S. Ohdachi, Y. Suzuki, T. Estrada, F. Medina, D. Lopez-Bruna, M. Yokoyama, M. Yoshinuma, K. Ida, LHD Experiment Group and TJ-II Experiment Group
Experimental Study of Poloidal Flow Effect on Magnetic Island Dynamics in LHD and TJ-II
Nov. 2010
- NIFS-980 T. Ido, A. Shimizu, M. Nishiura, S. Nakamura, S. Kato, H. Nakano, Y. Yoshimura, K. Toi, K. Ida, M. Yoshinuma, S. Satake, F. Watanabe, K. Itoh, S. Kubo, T. Shimozuma, H. Igami, H. Takahashi, I.Yamada, K. Narihara and the LHD experiment group
Potential Fluctuation Associated with Energetic-Particle Induced Geodesic Acoustic Mode in Reversed Magnetic Shear Plasmas on LHD
Nov. 2010
- NIFS-981 M. Isobe, K. Ogawa, K. Toi, M. Osakabe, K. Nagaoka, T. Tokuzawa, S. Kobayashi, D.A. Spong, D.S. Darrow and LHD experiment group
Characteristics of Anomalous Transport and Losses of Energetic Ions Caused by Alfvénic Modes in LHD Plasmas
Nov. 2010

- NIFS-982 M. Osakabe, T. Ito, R. Seki, S. Murakami¹, M. Yoshinuma, K. Ida, K. Y. Watanabe, Y. Matsumoto, M. Kobayashi, A. Bustos³, F. Castejon³, M. Isobe, S. Kobayashi, K. Ogawa, K. Toi, Y. Takeiri, and LHD group
Evaluation of Fast-Ion Confinement with Three Dimensional Magnetic Field Configurations on the Large Helical Device
Nov. 2010
- NIFS-983 T.-H.Watanabe, H.Sugama, and M. Nunami
Isotope Effects on Zonal Flows and Turbulence in Helical Configurations with Equilibrium-Scale Radial Electric Fields
Nov. 2010
- NIFS-984 N. Kasuya, S. Nishimura, M. Yagi, K. Itoh, S.-I. Itoh and N. Ohyabu
Development of Turbulence Diagnostics on Three-Dimensional Fields Obtained by Numerical Simulations in Magnetically Confined Plasmas
Nov. 2010
- NIFS-985 M. Nunami, T.-H. Watanabe, and H. Sugama,
Effects of Three-Dimensional Geometry and Collisions on Zonal Flows and Ion Temperature Gradient Modes in Helical Systems
Nov. 2010
- NIFS-986 S. Toda and K. Itoh
Theoretical Transport Analysis of Density limit with Radial Electric Field in Helical Plasmas
Nov. 2010
- NIFS-987 A. Wakasa, A. Fukuyama, S. Murakami, M. Miki, M. Yokoyama, M. Sato, S. Toda, H. Funaba, K. Tanaka, K. Ida, H. Yamada, M. Honda, N. Nakajima
Integrated Transport Simulation of LHD Plasmas using TASK3D
Nov. 2010
- NIFS-988 A. Ito, N. Nakajima
Equilibrium and Stability of High-beta Toroidal Plasmas with Toroidal and Poloidal Flow in Reduced Magnetohydrodynamic Models
Nov. 2010
- NIFS-989 K. Ichiguchi, B. A. Carreras
Multi-Scale MHD Analysis Incorporating Pressure Transport Equation for Beta-Increasing LHD Plasma
Nov. 2010
- NIFS-990 H. Miura and N. Nakajima
Sub-grid scale Effects on Short-wave Instability in Magnetized Hall MHD Plasma
Nov. 2010
- NIFS-991 Y. Todo, H. L. Berk, B. N. Breizman
Simulation Study of Nonlinear Magnetohydrodynamic Effects on Alfvén Eigenmode Evolution and Zonal Flow Generation
Nov. 2010
- NIFS-992 Y. Hishinuma, A. Kikuchi, T. Takeuchi, S. Yamada, A. Sagara
Development of low activation superconducting material for the feedback coil operated around core D-T plasma
Nov. 2010
- NIFS-993 M. Kondo, T. Muroga, A. Sagara, T. Valentyn , A. Suzuki, T. Terai, M. Takahashi, N. Fujii, Y. Yokoyama, H. Miyamoto, E. Nakamura,
Flow Assisted Corrosion and Erosion-Corrosion of RAFM Steel in Liquid Breeders
Nov. 2010
- NIFS-994 A. Nishimura, T. Takeuchi, S. Nishijima, N. Koizumi, G. Nishijima, K. Watanabe
14 MeV Neutron Irradiation Effect on Superconducting Properties of Nb₃Sn Strand for Fusion Magnet
Nov. 2010
- NIFS-995 T. Goto, Y. Suzuki, N. Yanagi, K. Y. Watanabe, S. Imagawa, A. Sagara
Importance of Helical Pitch Parameter in LHD-type Heliotron Reactor Designs
Nov. 2010

- NIFS-996 T. Imai, T. Kariya, R. Minami, S. Kubo, T. Shimozuma, Y. Yoshimura, H. Takahashi, T. Mutoh, K. Sakamoto, Y. Mitsunaka4), Y. Endo, S. Ito, M. Ota and GAMMA 10 Group
Development of Over-1 MW Gyrotrons for the LHD and the GAMMA 10 ECH Systems
Nov. 2010
- NIFS-997 O. Mitarai, A. Sagara, R. Sakamoto, N. Yanagi, T. Goto, S. Imagawa, O. Kaneko, and A. Komori
The high density ignition in FFHR helical reactor by neutral beam injection (NBI) heating
Nov. 2010
- NIFS-998 N. Yanagi, A. Sagara, T. Goto, S. Masuzaki, T. Mito, G. Bansal, Y. Suzuki, Y. Nagayama, K. Nishimura, S. Imagawa and O. Mitarai,
Heat Flux Reduction by Helical Divertor Coils in the Heliotron Fusion Energy Reactor
Nov. 2010
- NIFS-999 H. Nakanishi, M. Emoto, Y. Nagayama, T. Yamamoto, S. Imazu, C. Iwata, M. Kojima, M. Nonomura, M. Ohsuna, M. Yoshida, M. Hasegawa, A. Higashijima, K. Nakamura, Y. Ono, M. Shoji, S. Urushidani, M. Yoshikawa, K. Kawahata
Data Acquisition System for Steady State Experiments at Multi-Sites
Nov. 2010
- NIFS-1000 Y. Tatematsu, S. Kubo, M. Nishiura, K. Tanaka, N. Tamura, T. Shimozuma, T. Saito, T. Notake, Y. Yoshimura, H. Igami, H. Takahashi, T. Mutoh, K. Kawahata, K.Y. Watanabe, Y. Nagayama, Y. Takeiri, K. Ida, H. Yamada, O. Kaneko, A. Komori and LHD experimental Group
Development of Collective Thomson Scattering System using the Gyrotrons of sub-Tera Hz Region
Nov. 2010
- NIFS-1001 K. Toi, F. Watanabe, K. Tanaka, T. Tokuzawa, K. Ogawa, M. Isobe, M. Osakabe, Y. Suzuki, T. Akiyama, K. Ida, M. Goto, K. Kawahata, T. Morisaki, S. Morita, K. Narihara, S. Ohdachi, S. Sakakibara, H. Urano, I. Yamada, M. Yoshinuma and LHD Experiment Group
Role of Low-Order Rational Surfaces in Transport Barrier
Nov. 2010
- NIFS-1002 N. Fukumoto, J. Miyazawa, T. Takahashi, M. Nagata, M. Goto, T. Asai, S. Masamune, Y. Kikuchi, H. Yamada
Development of a neutral particle flow fueling system by using a compact torus plasma injector for LHD
Nov. 2010
- NIFS-1003 T. Oishi, K. Yamazaki, H. Arimoto, K. Baba, M. Hasegawa, H. Ozeki, T. Shoji, M. I. Mikhailov
Helical-Tokamak Hybridization Concepts for Compact Configuration Exploration and MHD Stabilization
Nov. 2010
- NIFS-1004 M. Yoshikawa, Y. Miyata, M. Mizuguchi, Y. Oono, F. Yaguchi, M. Ichimura, T. Imai, T. Kariya, I. Katanuma, Y. Nakashima, H. Hojo, R. Minami, and Y. Yamaguchi
Fluctuation Suppression during the ECH Induced Potential Formation in the Tandem Mirror GAMMA 10
Nov. 2010
- NIFS-1005 H. Zushi, N. Nishino, K. Hanada H. Honma, H.Q. Liu, Y. Higashizono M. Sakamoto, Y. Nakashima, M. Ishiguro, T. Ryoukai, S. Tashima, K. Nakamura, H. Idei, M. Hasegawa, A. Fujisawa, O. Mitarai, A. Fukuyama, Takeiri, Y. Takase8), T. Maekawa, Y. Kishimoto, K. Toi, M. Kikuchi9) and the QUEST group
Study of Edge Turbulence from the Open to Closed Magnetic Field Configuration during the Current Ramp-up Phase in QUEST
Nov. 2010
- NIFS-1006 K. Nagasaki, S. Yamamoto, H. Yoshino, K. Sakamoto, N. B. Marushchenko, Y. Turkin, T. Mizuuchi, H. Okada, K. Hanatani, T. Minami, K. Masuda, S. Kobayashi, S. Konoshima, M. Takeuchi, Y. Nakamura, S. Ohshima, K. Mukai, H. Y. Lee, K. Mizuno, Y. Yoshimura, G. Motojima, A. Cappa, B. Blackwell, F. Sano
Experimental Study of Second Harmonic ECCD in Heliotron J
Nov. 2010

- NIFS-1007 H. Idei, M. Sakaguchi, E.I. Kalinnikova, K. Nagata, A. Fukuyama, H. Zushi, K. Hanada, M. Ishiguro, H. Igami, S. Kubo, K. Nakamura, A. Fujisawa, M. Sakamoto, M. Hasegawa, Higashizono, S. Tashima, R. Ogata, H. Q. Liu, I. Goda, T. Ryokai, S. K. Sharma, M. Isobe, A. Ejiri, K. Nagaoka, M. Osakabe, A. Tsushima, H. Nakanishi, T. Morisaki, N. Nishino, Y. Nakashima, H. Watanabe, K. Tokunaga, T. Tanabe, N. Yoshida1), K.N. Sato, S. Kawasaki, H. Nakashima, A. Higashijima, Y. Takase, T. Maekawa, O. Mitarai, M. Kikuchi, K. Toi and Y. Kishimoto
Phased-array Antenna System for Electron Bernstein Wave Heating and Current Drive Experiments in QUEST
Nov. 2010
- NIFS-1008 Y. Nakashima, I. Katanuma, K. Hosoi, H. Ozawa, R. Yonenaga, Y. Higashizono, N. Nishino, M. Yoshikawa, M. Ichimura, T. Imai, T. Kariya, Y. Kiwamoto, R. Minami, Y. Miyata, Y. Yamaguchi, N. Asakura, A. Hatayama, Y. Hirooka, S. Kado, S. Masuzaki, H. Matsuura, N. Ohno, M. Shoji, Y. Ueda
Generation and Characterization of High Heat-Flux Plasma-Flow for Divertor Simulation Studies Using a Large Tandem Mirror Device
Nov. 2010
- NIFS-1009 H. Shiraga, S. Fujioka, M. Koga, H. Nakamura, T. Watari, K. Shigemori, Y. Sakawa, H. Nishimura, K. A. Tanaka, H. Habara, T. Ozaki, M. Isobe, H. Homma, Y. Fujimoto, M. Nakai, T. Norimatsu, A. Iwamoto, T. Mito, N. Miyanaga, J. Kawanaka, T. Jitsuno, K. Tsubakimoto, Y. Nakata, N. Sarukura, H. Nagatomo, T. Johzaki, M. Murakami, K. Mima, H. Sakagami, A. Sunahara, T. Taguchi, Y. Nakao, and H. Azechi
Integrated experiments of Fast Ignition with Gekko-XII and LFEX lasers
Nov. 2010
- NIFS-1010 M. Murakami, H. Nagatomo, T. Johzaki, K. Shigemori, Y. Hironaka, T. Watari, Y. Arinaga, T. Norimatsu, H. Shiraga, H. Azechi, M. Karasik, J. Weaver, Y. Aglitskiy, A. Velikovich, S. Zalesak, J. Bates, A. Schmitt, J. Sethian, S. Obenschain
Progresses of Impact Ignition
Nov. 2010
- NIFS-1011 Norimatsu, T., Furukawa, H., Kurahashi, S., Shimada, Y., Nagatomo, H., Kunugi, T., Kajimura, Y., and Azechi, H.
Stagnation of Ablated Metal Vapor in Laser Fusion Reactor with Liquid Wall
Nov. 2010
- NIFS-1012 M. Hirsch, T. Akiyama, T. Estrada, T. Mizuuchi, K. Toi, C. Hidalgo
H-mode in Helical Devices
Nov. 2010
- NIFS-1013 Y. Feng, M. Kobayashi, T. Lunt, D. Reiter
Comparison between Stellarator and Tokamak Divertor Transport
Nov. 2010
- NIFS-1014 A. Bustos, F. Castejon, M. Osakabe, L. A. Fernández, V. Martin-Mayor
Kinetic Simulations of Fast Ions in Stellarators
Nov. 2010
- NIFS-1015 D. A. Gates, C. Baylard, J. Baumgaertel, M. Bitter, A. Boozer, H.-S. Bosch, T. Brauer, T. Brown, M. Cole, D. Darrow, T. Dodson, P. J. Fogarty, M. Goto, W. Guttenfelder, R. Haange, G. Hammett, J. H. Harris, P. Heitzenroeder, K. Hill, K. Ida, M. Isobe, T. Klinger, R. König, L.-P. Ku, S. Lazerson, D. R. Mikkelsen, S. Morita, H. Neilson, K. Ogawa, N. Pablant, N. Pomphrey, A. Reiman, S. Sakakibara, R. Sanchez, C. Skinner, B. Stratton, Y. Suzuki, K. Tanaka, L. Wegener, A. Werner, R. Wolf, P. Xanthopoulos, H. Yamada, M. Yosinuma, M. Zarnstorff
Overview of the US collaborative program in stellarator experiments
Nov. 2010
- NIFS-DATA-109 N. Sakamoto, H. Tsuchida, T. Kato, S. Kamakura, H. Ogawa, K. Ishii, I. Murakami, D. Kato, H. Sakaue, M. Kato, J. Berkowitz, M. Inokuti
Oscillator Strength Spectra and Related Quantities of 9 Atoms and 23 Molecules Over the Entire Energy Region
Apr. 8, 2010

- NIFS-DATA-110 K.M. Aggarwal, T. Kato, F.P. Keenan and I. Murakami
Energy Levels, Radiative Rates and Electron Impact Excitation Rates for Transitions in He-like C V
July 1, 2010
- NIFS-DATA-111 A.D. Ulansev and I. Murakami
Transitions between Fine-structure Levels of $FeXX$ Ion in Collisions with Protons in High-temperature Plasmas
July 27, 2010
- NIFS-DATA-112 V.P. Shevelko, D. Kato, M.S. Litsarev and H. Tawara
The Energy-deposition Model: Electron Loss of Heavy Ions in Collisions with Neutral Atoms at Low and Intermediate Energies
Sep. 3, 2010
- NIFS-MEMO-59 Radiation Control Safety Office/Safety Hygiene Protection Bureau, Safety and Environmental Research Center, National Institute for Fusion Science
Report on Administrative Work for Radiation Safety from April 2009 to March 2010
Oct. 04, 2010
- NIFS-PROC-83 (Eds.) D. Li, Y. Kishimoto, Z. GAO and Y. Tomita
Proceeding of JSPS-CAS Core University Program (CUP) Seminar on Modeling of Theory and Simulation of Fusion Plasmas August 30 - September 2, 2010 Beijing, CHINA
Jan. 05, 2011
- NIFS-PROC-84 (Eds.) X. Gao and S. Morita
Proceeding of JSPS-CAS Core University Program Seminar on Production and Control of High Performance Plasmas with Advanced Plasma Heating and Diagnostic Systems, 1-4 November, 2010, Guilin, China
Feb. 01, 2011
- NIFS-PROC-85 (Eds.) H. Sakagami and Z. M. Sheng
JSPS-CAS Core University Program Seminar Proceedings of Japan-China Joint Seminar on Laser Plasma and High Energy Density Physics, October 14-16, 2010, Shanghai, China
Feb. 18, 2011
- NIFS-PROC-86 (Eds.) P. Fu, Y. Song, T. Mito and S. Yamada
Proceeding of JSPS-CAS Core-University Program (CUP) on Superconducting Key Technology for Advanced Fusion Device, October 18-21, 2010, Xi'an, P.R. China
Mar. 07, 2011