研究論文目録

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九州大学

応用力学研究所

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Professor Masayuki Oikawa, Associate Professor Makoto Okamura,
Research Associate Hidekazu Tsuji

辻英一，及川正行，A.V.Porubov: KP 方程式による孤立波相互作用と Rogue Wave の関連について,九大応用力学研究所研究集会報告 16ME-S1,210-215，2005.

辻 英一，A.V. Porubov，及川 正行: 非局所分散項を持つ２次元非線形浅水波方程式の解析,日本流体力学会年会 2005 講演論文集,AM05-16-002,2005.

Porubov, A.V., H. Tsuji, I.V. Lavrenov and M. Oikawa: Formation of the rogue wave due to non-linear two-dimensional waves interaction, Wave Motion,Vol.42, 202-210, 2005.

Ueno, K., H. Sakaguchi and M. Okamura: Renormalization-group and numerical analysis of a noisy Kuramoto-Sivashinsky equation in 1+1 dimensions. Physical Review E, Vol. 71, 046138 (10 pages), 2005.

界面動力学

Free Surface/Interface Dynamics

教授　柏木　正，助教授　胡　長洪，助手　末吉　誠

Professor Masashi Kashiwagi, Associate Professor Changhong Hu,
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Hu, C., O. Faltinsen and M. Kashiwagi: 3-D Numerical Simulation of Water-Entry Problem by CIP based Cartesian Grid Method, Proc. of 20th Int. Workshop on Water Waves and Floating Bodies, 95-98, 2005.

Kashiwagi, M.: Wave-Body Interactions in a Two-Layer Fluid of Finite Water Depth, Proc. of 20th Int. Workshop on Water Waves and Floating Bodies, 111-114, 2005.

Sueyoshi, M., Z. Kishev and M. Kashiwagi: A Particle Method for Impulsive Loads Caused by Violent Sloshing, Proc. of 20th Int. Workshop on Water Waves and Floating Bodies, 239-242, 2005.

Sueyoshi, M.: Validation of a Numerical Code by a Particle Method for Violent Free Surface Problems, Proc. of 15th Int. Offshore and Polar Engineering Conf., Vol.3, 247-253, 2005.

Kishev, Z., C. Hu and M. Kashiwagi: Numerical Simulation of Violent Sloshing by CIP Method with Experimental Validation, Proc. of 15th Int. Offshore and Polar Engineering Conf., Vol.3, 274-281, 2005.

Kashiwagi, M.: Wave-Induced Motions of a Body Floating in a Two-Layer Fluid, Proc. of 15th Int. Offshore and Polar Engineering Conf., Vol.3, 358-365, 2005.

Hu, C., O. Faltinsen and M. Kashiwagi: 3-D Numerical Simulation of Freely Moving Floating Body by CIP Method, Proc. of 15th Int. Offshore and Polar Engineering Conf., Vol.3, 674-679, 2005.

Kashiwagi, M. and K. Sumi: Development of Hull Form of a Ship with High Performance in Waves, Proc. of Int. Conf. on Fast Sea Transportation FAST-2005, CD-ROM, 2005.

Hu, C., M. Kashiwagi and O. Faltinsen: Recent Progress in CIP Method for Strongly Nonlinear Ship-Wave Interactions, Proc. of 4th Int. Workshop on Ship Hydrodynamics, 41-47, 2005.

Kashiwagi, M.: Wave Scattering Among a Large Number of Floating Cylinders, J. of Structural Engineering and Mechanics, Vol.21 (No.1), 53-66, 2005.

Kashiwagi, M.: Wave-Induced Motions of a Body Floating in a Two-Layer Fluid, J. of Offshore and Polar Engineering, Vol.15 (No.3), 175-182, 2005.

Hu, C., M. Kashiwagi and O. Faltinsen: 3-D Computation of Ship-Wave Interaction by CIP/Cartesian Grid Method, Proc. of 8th Numerical Towing Tank Symposium, 14.1-14.6, 2005.

胡長洪，柏木正：CIP 法による強非線形船舶・波浪相互作用の 3 次元数値シミュレーション，第 18 回計算力学講演会講演論文集，627-628，2005．

Nishi, Y., C. Hu and M. Kashiwagi: A CIP and Multigrid-Based CFD Method for Numerical Simulations of Highly Nonlinear Phenomena, 日本船舶海洋工学会秋季講演会論文集, 51-54, 2005.

胡長洪，喜多代顕彦，柏木正：CIP 法による強非線形波浪中浮体動揺に関する計算精度の検証，日本船舶海洋工学会秋季講演会論文集，Vol.1，55-56，2005．

胡長洪：ノルウェーの船舶海洋工学研究の COE について，日本船舶海洋工学会秋季講演会論文集，Vol.1，157-158，2005．

柏木正：有限水深二層流体中での浮体に働く波漂流力，日本船舶海洋工学会秋季講演会論文集，Vol.1，181-182，2005．

福地信義，田中耕平，和泉考作，胡長洪：労働環境安全のための工場内溶接・切断ヒュームの拡散制御に関する研究（その 1 内業工場内ヒューム濃度計測)，日本船舶海洋工学会論文集，Vol.1，85-95，2005．

福地信義，和泉考作，胡長洪：労働環境安全のための工場内溶接・切断ヒュームの拡散制御に関する研究（その 2 立体ブロック内の換気)，日本船舶海洋工学会論文集，Vol.2，111-121，2005．

胡長洪，柏木正：CIP 法による強非線形自由表面問題の数値シミュレーション，第 55 回理論応用力学講演会講演論文集，285-286，2006．

三上隆，柏木正：船舶に作用する非線形波浪荷重の一計算法について，第 55 回理論応用力学講演会講演論文集，551-552，2006．

ナノメカニックス

Nano-Mechanics

教授　柿本　浩一，助教授　寒川　義裕，助手　石井　秀夫

Professor Koichi Kakimoto, Associate Professor Yoshihiro Kangawa, Research Associate Hideo Ishii

Koichi Kakimoto, Takashige Shinozaki and Yoshio Hashimoto : Heat and oxygen transfer in silicon melt in an electromagnetic Czochralski system with transverse magnetic fields, Int. J. Materials and Product Technology, Vol. 22, Nos.1/2/3, 84-94, 2005.

K. Kakimoto, A. Murakawa Y. Hashimoto : An investigation of thermal conductivity of isotope silicon as a function of temperature estimated by molecular dynamics, Journal of Crystal Growth, Vol. 275, e427-e432, 2005.

Lijun Liu and Koichi Kakimoto : 3D global analysis of CZ-Si growth in a transverse magnetic field with various crystal growth rates, Journal of Crystal Growth, Vol. 275, e1521-e1526, 2005.

Lijun Liu, Tomonori Kitashima and Koichi Kakimoto : Global analysis of effects of magnetic field configuration on melt-crystal interface shape and melt flow in CZ-Si crystal growth, Journal of Crystal Growth, Vol. 275, e2135-e2139, 2005.

石井秀夫，村川　淳，柿本浩一，Hideo ISHII, Atsushi MURAKAWA, Koichi KAKIMOTO：分子動力学による同位体 Ge の熱伝導解析 2，Analysis of thermal conductivity of isotope germanium by molecular dynamics，九州大学応用力学研究所所報，第 127 号，101- 107，2005 年.

K. Kakimoto, L. Liu, T. Kitashima, A. Murakawa and Y. Hashimoto : Silicon crystal growth from the melt: Analysis from atomic and macro scales, Cryst. Res. Technol., Vol. 40, No.4/5, 307-312, 2005.

Lijun Liu and Koichi. Kakimoto : 3D global analysis CZ-Si growth in transverse magnetic field with rotating crucible and crystal, Cryst. Res. Technol., Vol. 40, No.4/5, 347-351, 2005.

Lijun Liu, Satoshi Nakano and Koichi Kakimoto : NUMERICAL ANALYSIS OF AN ELECTROMAGNETIC CZ-SI GROWTH PROCESS BY 3D GLOBAL MODELING, Proceedings of HT 2005, 2005 ASME Summer Heat Transfer Conference

Lijun Liu and Koichi Kakimoto : Partly three-dimensional global modeling of a silicon Czochralski furnace. I. Principles, formulation and implementation of the model, International Journal of Heat and Mass Ttransfer, Vol. 48, 4481-4491, 2005.

Lijun Liu and Koichi Kakimoto : Partly three-dimensional global modeling of a silicon Czochralski furnace.II. Model application: Analysis of a silicon Czochralski furnace in a transverse magnetic field, International Journal of Heat and Mass Transfer, Vol. 48, 4492-4497, 2005.

Lijun Liu, Satoshi Nakano and Koichi Kakimoto : An analysis of temperature distribution near the melt-crystal interface in silicon Czochralski growth with a transverse magnetic field, Journal of Crystal Growth, Vol.282, 49-59, 2005.

Lijun Liu, Satoshi Nakano and Koichi Kakimoto : Advancement of Numerical Investigation of a Silicon Czochralski Growth with Application of a Transverse Magnetic Field,**日本結晶成長学会誌**, Vol.32, No.4, 306-313.

Takahiro Kawamura, Yoshihiro Kangawa and Koichi Kakimoto : Investigation of thermal conductivity of GaN by molecular dynamics, Journal of Crystal Growth, Vol. 284, 197-202, 2005.

Kazuyuki MINAMI, Jumpei JOGO, Valery SMIRNOV, Hideki YUASA, Yoshikazu NAGATSUKA Takayuki ISHIBASHI, Yoshitaka MORISHITA, Yuriko MATSUO, Yoshihiro KANGAWA, Akinori KOUKITU and Katsuaki SATO : Growth of $MnGeP_2$ Thin Films by Molecular Beam Epitaxy, Japanese Journal of Applied Physics, Vol. 44, No.8, pp. L265-L267, 2005.

Y. Kumagai, H. Murakami, Y. Kangawa and A. Koukitu : Growth and characterization of thick GaN layers with high Fe doping, Phys. Stat. Sol., (c) 2, No.7, 2058-2061, 2005.

T. Yamane, H. Murakami, Y. Kangawa, Y. Kumagai and A. Koukitu : Growth of thick AlN layer on sapphire (0001) substrate using hydride vapor phase epitaxy, Phys. Stat. Sol., (c) 2, No.7, 2062-2065, 2005.

Akinori Koukitu, Jun Kikuchi, Yoshihiro Kangawa, Yoshinao Kumagai : Thermodynamic analysis of AlGaN HVPE growth, Journal of Crystal Growth, Vol. 281, 47-54, 2005.

纐纈明伯，寒川義裕，熊谷義直，関　壽 ： 化合物半導体気相成長の熱力学,応用物理， 第 47 巻，第 5 号，561-572，2005．

Yuriko Matsuo, Nobuhiko Kawaguchi, Marie Fujino, Yoshihiro Kangawa, Yoshinao Kumagai, Toshiharu Irisawa and Akinori Koukitu : GaN growth process using GaP(111)A and (111) B surfaces as an initial substrate, Journal of Crystal Growth, Vol. 275 (2005) e1631-e1636.

Hisashi Murakami, Nobuhiko Kawaguchi, Yoshihiro Kangawa, Yoshinao

Kumagai and Akinori Koukitu : Impact of crysta11ization manner of the buffer layer on the crystalline quality of GaN epitaxial layers on GaAs (111) A substrate, Journal of Crystal Growth, Vol.275, e1149-e1154, 2005.

Y. Kangawa, A. Koukitu, K. Sato, T. Ishibashi, K. Minami, H. Yuasa, J. Jogo, T. Nagatsuka and A. Mizusawa : MBE growth of a novel chalcopyrite-type ternary compound $MnGeP_2$, Journal of Physics and Chemistry of Solids, Vol.66, 2030–2035, 2005.

Takahiro Kawamura, Yoshihiro Kangawa and Koichi Kakimoto : Investigation of thermal conductivity of GaN by molecular dynamics, Journal of Crystal Growth, Vol. 284, 197-202, 2005.

複合連続体力学

Heterogeneous Solid Mechanics

教授　高雄　善裕，助教授　汪　文学，助手　宮野　公樹

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M. Moriyama, Y. Takao, W.X. Wang,　Microscopic investigation of tensile fatigue damage of C/C and the metal impregnated C/C, Reports of Research Institute for Applied Mechanics, Kyushu University, No,129, pp.31-35, 2005

M. Moriyama, Y. Takao, W.X. Wang and T. Matsubara, Tensile cyclic strength and macroscopic failure characteristics of C/C and the metal impregnated C/C, Reports of Research Institute for Applied Mechanics, Kyushu University, No,129, pp.25-30, 2005

D.M. Luo, W.X. Wang, Y. Takao, K. Kakimoto Prediction of stiffness and stresses for carbon nano-tube composites based on homogenization analysis Kyushu University, No,129, pp.37-46, 2005

S. Seike,Y. Takao , W.X. Wang, Fatigue and static damage of a pinned joint in [0/45/-45/90]3s CFRP, Proceedings of the 5th Japan-Korea Joint Symposium on Composite Materials (Matsuyama), 113-115, 2005

W. X. Wang, D. M. Luo, Y. Takao and K. Kakimoto, Numerical prediction of the stiffness and local stresses for nano-composites with periodic distributions of nanotubes, Proceedings of the 15th International Conference on Composite Materials(Durban, South Africa), CDROM ID-p02l, pp. 1-10, 2005

破壊力学

Fracture Mechanics and Materials

教授　新川　和夫,助教授　東藤　貢，助手　森田　康之

Professor Kazuo Arakawa, Associate Professor Mitsugu Todo,
Research Associate Yasuyuki Morita

M. Todo and K. Arakawa: Microscopic observation and modeling of toughening mechanism in rubber-modified polymer, Proceedings of 11th International Conference on Fracture, March 20-25, 2005, Turin, Italy, Paper No.3644 (CD-ROM).

M Todo, K. Arakawa, J. Takahashi, H. Watanabe and J. Nakamoto: Dependence of Loading-Rate on the Fracture Mechanism of MBS Polymer Blend, Proceedings of the 5th International Conference on Mechanics of Time Dependent Materials, October 3-6, 2005, Karuizawa, Nagano, Japan, 199-202

S.-D. Park, M. Todo, H. Tsuji, Y. Takenoshita and K. Arakawa: Characterization of Fracture Mechanism of PLLA/PCL polymer Blend, Proceedings of the 5th Japan-Korea Joint Symposium on Composite Materials, October 19-20, 2005, Matsuyama, Ehime, Japan, 45-46

東藤　貢，朴　相玳，新川和夫，竹之下康治：ハイドロキシアパタイト粒子分散ポリL乳酸の破壊挙動に及ぼす粒子形状の影響，日本複合材料学会誌, Vol.31, No.4, 2005, pp.31-37

新川和夫，　馬田俊雄，朴　相玳，東藤　貢：安定・不安定き裂進展を伴う高分子材料の破壊エネルギ計測，実験力学，Vol.5，No.2，2005，pp.35-39

S.D. Park, M. Todo and K. Arakawa: Effects of Isothermal Crystallization on Fracture Toughness and Crack Growth Behavior of Poly(lactic acid), Journal of Materials Science, 40, 2005, 1055-1058

S.D. Park, M. Todo, K. Arakawa, Y. Takenoshita: Effect of Mixing Process on the Fracture Behavior of HA/PLLA Composite Material, Key Engineering Materials, Vol2.297-300, 2005, 2453-2458

M. Todo, Y. Fukuya, S. Hagihara and K. Arakawa: Finite Element Modeling of Damage Formation in Rubber-Toughened Polymer, Key Engineering Materials, Vols.297-300, 2005, 1019-1024.

X.F. Yao, W. Xu, K. Arakawa, K. Takahashi and T. Mada: Dynamic optical visualization on the interaction between propagating, crack and stationary crack, Optics and Lasers in Engineering 43 (2005) pp.195-207.

K. Arakawa and T. Mada: Dynamic and Viscoplasitic Effects in Brittle Fractue in PMMA, Proceedings of the International Congress on Experimental Mechanics,Paper No.4-1 (2005).

新川和夫，馬田俊雄，小松治男，清水哲雄，佐藤正矩，竹原幸生，江藤剛治：ゴルフボールの斜め衝撃挙動に関する実験解析，実験力学，Vol.5，No.4（2005）pp.351-355.

新川和夫，馬田俊雄，小松治男，清水哲雄，佐藤正矩，竹原幸生，江藤剛治：斜め衝突ゴルフボールの動的接触計測，実験力学，Vol.5，No.4（2005）pp.356-360.

森田康之，新川和夫，東藤貢：ウェッジガラス板を用いた位相シフトモアレ干渉法による電子パッケージの熱変位場・熱ひずみ場の計測，計測自動制御学会論文集，Vol.41，No.8（2005）pp.625-629.

Y. Morita, A. Dobroiu, C. Otani and K. Kawase: Terahertz Technique for Real-Time Detection of Defects in the Seal of Flexible Plastic Packages, Proceedings of the 2005 SEM Annual Conference and Exposition on Experimental and Applied Mechanics, Paper No.107 (2005).

K. Arakawa, T. Mada, S. D. Park and M. Todo: Fracture Energy Measurements of Biodegradable Poly(Lactic Acid), Proceedings of the 2005 SEM Annual Conference and Exposition on Experimental and Applied Mechanics, Paper No.81 (2005).

S. D. Park, M. Todo and K. Arakawa: Effects of Isothermal Crystallization on Fracture Toughness and Crack Growth Behavior of Poly(lactic acid), Journal of Materials Science, Vol.40 (2005) pp.1055-1058.

S.-D. Park, M. Todo, K. Arakawa and M. Koganemaru: Effect of crystallinity and loading-rate on mode I fracture behavior of poly(lactic acid), Polymer, Vol.47,pp.1357-1363,2006

Y. Morita, K. Arakawa, M. Todo, and M. Kaneto: Experimental Study on the Thermo-Mechanical Effects of Underfill and Low-CTE Substrate in a Flip-Chip Device, Microelectronics Reliability, Vol.46, No.5-6,pp.923-929, 2006.

高山哲生,東藤貢,新川和夫,辻秀人:PLA/PCL 系ポリマーブレンドの破壊特性に及ぼす添加剤の影響, 日本機械学会論文集 A 編, Vol.72, No.714, pp.173-178, 2006.

地球流体力学

Geophysical Fluid Dynamics

教授　和方　吉信，助教授　山本　勝

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Wakata,Y., T. Setou, I. Kaneko, H. Uchida, and S. Imawaki: Interannual variability of the Kuroshio transport passing through the 137°E meridian in an OGCM related to the North Pacific windstress. Journal of Oceanography, Vol.62, No.1, 25-35, 2006.

Yamamoto, M.: Application of a Multipurpose Finite Element Solver to Condensation Simulation: Use of Adaptive Mesh Refinement and Automatic Time Step Control, Journal of Aerosol Research Japan (エアロゾル研究), Vol. 21, 51-58,2006.

海洋大気力学

Ocean-Atomosphere Dynamics

大気変動力学
Atmospheric Dynamics
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Uno, I., Y. Hara and Sinsuke Satake: Numerical Analysis of Inter-Annual Variation of Dust Emission and Transport in East Asia, J. Agric. Meteorol. , 60(5), 513-518, 2005.

Zahorowski, W., S. Chambers, T. Wang, C.-H. Kang, I. Uno, S. Poon, S.-N. Oh, S. Werczynski, J. Kim and A. Henderson-Sellers: Radon-222 in boundary layer and free tropospheric continental outflow events at three ACE-Asia sites, Tellus, 57B, 124-140, 2005.

Uno, I., K. Harada, S. Satake, Y. Hara and Z. Wang: Meteorological Characteristics and Dust Distribution of the Tarim Basin Simulated by the Nesting RAMS/CFORS Dust Model, Journal of the Meteorological Society of Japan, Vol.83A, pp.219-239, 2005.

山本　哲，三上正男，安井元昭，矢吹貞代，鵜野伊津志，内山明博:「風送ダストの気候影響に関する日中共同研究」に係る「第４回 ADEC ワークショップ」報告，天気 52 巻 6 号，469-474，2005．

鵜野伊津志，大原利眞，菅田誠治，黒川純一，古橋規尊，山地一代，谷本直隆，弓本桂也，植松光夫: RAMS/CMAQ の連携システムによるアジア域の物質輸送シミュレーションシステムの構築，大気環境学会誌，第４０巻第４号，148-164，2005．

弓本桂也，吉田保衡，鵜野伊津志，内田孝紀，大屋裕二: メソスケール気象モデルを用いた高解像度風況シミュレーション–野間岬風力発電サイトを対象として–，天気，52(10)，11-17，2005．

Tanimoto, H., Y. Sawa, H. Matsueda, I. Uno,T. Ohara, K. Yamaji, J. Kurokawa and S. Yonemura, Significant latitudinal gradient in the surface ozone spring maximum over East Asia, Geophysical Research Letters, Vol. 32, L21805、doi:10.1029/2005GL023514, 2005.

Park, C. B., N. Sugimoto, I. Matsui, A. Shmizu, B. Tatarov, A. Kamei, C. H. Lee, I. Uno, T. Takemura and D. L. Westphal: Long-Range transported saharan dust to east Asia observed with lidars, Scientific Online Letters on the Atmosphere, 1, 121-124, doi:10.2151/sola.2005-032, 2005.

Kaufman, Y. J., O. Boucher, D. Tanre, M. Chin, L. Remer and T. Takemura: Aerosol anthropogenic component estimated from satellite data, Geophys. Res. Lett., 32, L17804, doi:10.1029/2005GL023125, 2005.

Anderson, T. L., R. J. Charlson, N. Bellouin, O. Boucher, M. Chin, S. A. Christopher, Y. J. Kaufman, S. Kinne, J. A. Ogren, L. A. Remer, T. Takemura, D. Tanre, O. Torres, C. R. Trepte, B. A. Wielicki, D. M. Winker and H. Yu: An "A-Train" strategy for quantifying direct climate forcing by anthropogenic aerosols, Bull. Amer. Meteor. Soc., 86, 1795-1809, 2005.

Nakajima, T. Y., A. Uchiyama, T. Takamura, N. Tsujioka, T. Takemura and T. Nakajima: Comparisons of warm cloud properties obtained from satellite, ground, and aircraft measurements during APEX intensive observation period in 2000 and 2001, J. Meteor. Soc. Japan, 83, 1085-1095, 2005.

Yamaji K., T. Ohara, I. Uno, H. Tanimoto, J. Kurokawa, H. Akimoto: Analysis of the seasonal variation of ozone in the boundary layer in East Asia using the Community Multi-scale Air Quality model: What controls surface ozone levels over Japan? , Atmospheric Environment, 40, 1856-1868, 2006.

Nagashima, T., H. Shiogama, T. Yokohata, T. Takemura, S. A. Crooks and T. Nozawa: Effect of carbonaceous aerosols on surface temperature in the mid twentieth century, Geophys. Res. Lett., 33, L04702, doi:10.1029/2005GL024887, 2006.

Satheesh, S. K., K. K. Moorthy, Y. J. Kaufman and T. Takemura: Aerosol optical depth, physical properties and radiative forcing over the Arabian Sea, Meteor. Atmos. Phys., 91, 45-62, 2006.

大気流体工学

Wind Engineering

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T. Uchida and Y. Ohya：Micro-sitting Technique for Wind Turbine Generator by Using One PC, Proc. of EXPO WCWRF 2005, CD-ROM, Jun. 2005.

Yuji Ohya, Takashi Karasudani, Akira Sakurai, Kenichi Abe, Masato Furukawa and Masahiro Inoue：Development of a shrouded wind turbine with brimmed diffuser, Proc. of EXPO WCWRF 2005, CD-ROM, Jun. 2005.

Akinori Kouchi, Kazuki Okabayashi, Hiroshi Yoshikado, Koji Kitabayashi, Shinichi Okamoto, Yuji Ohya, Yasuo Ide and Keizo Kobayashi：Development of numerical model for dispersion over complicated terrain in the convective boundary layer, Int. J. Environment and Pollution, Vol.25, Nos. 1/2/3/4, 2005, 48-59, July.2005.

大屋裕二：新型風車あれこれ　－　風レンズ風車，ターボ機械，第 33 巻，第７号，59-62，2005．

大屋裕二：空力的考察に基づく高出力風レンズ風車の開発、第２３回西日本乱流シンポジウム講演論文集，2005．

内田孝紀，大屋裕二：一様流中の２次元崖状地形まわりの気流性状に関する数値的研究，応用力学論文集，Vol.8，831-838，2005．

内田孝紀，大屋裕二：風車単体後流の渦構造解明に向けた基礎的研究，九大応用力学研究所所報，第 129 号,123-128，2005．

大屋裕二，Reina Nakamura，内田孝紀，杉谷賢一郎 ： 低層ジェットを伴う安定境界層に発生する間欠的な乱流バースト，九大応用力学研究所所報，第 129 号，113-122，2005．

内田孝紀，大屋裕二：複雑地形上の非定常風況シミュレーションにおける流出境界断面の取扱いについて，九大応用力学研究所所報，第 129 号，129-133，2005．

内田孝紀，大屋裕二：風況シミュレーションのための紙地図からの高解像度地形データの構築，九大応用力学研究所所報，第 129 号，135-141，2005．

大屋裕二：温度成層風洞を用いた大気境界層のシミュレーション，風洞ワークショップ講演論文集，(9，2005)

K. Abe, M. Nishida, A. Sakurai, Y. Ohya, H. Kihara, E. Wada and K. Sato：Experimental and numerical investigations of flow fields behind a small wind turbine with a flanged diffuser, Journal of Wind Engineering and Industrial Aerodynamics 93, 951-970, Oct, 2005.

烏谷　隆：マイクロ風車の風速変動に対する応答，第２７回風力エネルギー利用シンポジウム講演論文集，2005．

内田孝紀，大屋裕二：ＰＣクラスタを用いた風況予測シミュレータＲＩＡＭ-ＣＯＭＰＡＣＴの実用化へ向けた検討，第２７回風力エネルギー利用シンポジウム講演論文集，2005．

内田孝紀，大屋裕二：ＰＣクラスタを用いた風況予測シミュレータＲＩＡＭ-ＣＯＭＰＡＣＴの実用化へ向けた検討,風力エネルギー，日本風力エネルギー協会誌 68，8-11，2005．

内田孝紀：種々の安定成層場における三宅島火山ガスの挙動の数値シミュレーション(招待講演)，第 19 回数値流体力学シンポジウム/日本流体力学講演論文集，18-19，2005．

S. Takahashi, Y. Ohya, T. Karasudani, K. Watanebe : A study of airfoil design suitable for Vertical Axis Wind Turbine and an application of wind collecting structure for higher performance

The6th Japan/Korea joint Workshop on Aeronautics and Astronautics, Dec. 2005

Toshiyuki SANADA, Masatoshi FUJINO, Daisuke MATSUSHITA, Takanori UCHIDA, Hikaru MATSUMIYA, Masao WATANABE, Yoshinori HARA, Minori SHIROTA：Numerical Site Calibration on a Complex Terrain and its Application for Wind Turbine Performance Measurements, Proceedings of EWEC 2006-European Wind Energy Conference and Exhibition, 2006.

大屋裕二：風力発電の空気力学と集風式新型風車の開発，第５５回理論応用力学講演論文集，7-10，2006．

内田孝紀，大屋裕二：ナセル塔載の風向・風速計で測定された複雑地形上の風況特性―岬の場合―，九大応用力学研究所所報，第 130 号，35-52，2006．

内田孝紀，大屋裕二，荒谷　亮，田辺正孝，川島泰史：非定常・非線形風況シミュレータ RIAM-COMPACT を用いたウィンドファーム風況診断，九大応用力学研究所所報，第 130 号，35-52，2006．

海洋循環力学

Ocean Circulation Dynamics

教授　松野　健，助教授　千手　智晴

Professor Takeshi Matsuno, Associate Professor Tomoharu Senjyu

Mori, K., T. Matsuno and T. Senjyu: Seasonal/Spatial Variations of the Near-Inertial Oscillations in the Deep Water of the Japan Sea, J. Oceanogr., 61(4), 761-773, 2005.

Matsuno T. and F. Wolk: Observations of turbulent energy disspation rate ε in the Japan Sea, Deep-Sea Res. II, 52, 1564-1579, 2005.

Senjyu, T., H.-R. Shin, J.-H. Yoon, Z. Nagano, H.-S. An, S.-K. Byun, and C.-K. Lee: Deep flow field in the Japan/East Sea as deduced from direct current measurements, Deep-Sea Res. II, 52, 1726-1741, 2005.

Matsuno, T., M. Shimizu, Y. Morii, H. Nishida and Y. Takaki: Measurements of the turbulent energy dissipation rate around the shelf break in the East China Sea, J. Oceanogr., 61(6), 1029-1037, 2005.

Senjyu, T., Y. Isoda, T. Aramaki, S. Otosaka, S. Fujio, D. Yanagimoto, T. Suzuki, K. Kuma and K. Mori: Benthic front and the Yamato Basin Bottom Water in the Japan Sea, J. Oceanogr., 61(6), 1047-1058, 2005.

H. Takata, K. Kuma, S. Iwade, Y. Isoda, H. Kuroda, and T. Senjyu: Comparative vertical distributions of iron in the Japan Sea, the Bering Sea, and the western North Pacific Ocean, J. Geophysical Res., 110, C07004, doi:10.1029/2004JC002783, 2005.

Jang, S.T., J.H. Lee, I.C. Pang, T. Matsuno, D.K. Lee: The response of the Changjiang Diluted Water to wind, Proc. The Indonesia Ocean Forum 2005/the 13th PAMS/JECSS Workshop, CD-ROM, 2005.

Chang, P.H., A. Isobe, T. Matsuno, M. Shimizu: A numerical study on the Changjiang Diluted Water over the East China Sea in summer 2003, Proc. The Indonesia Ocean Forum 2005/the 13th PAMS/JECSS Workshop, CD-ROM, 2005.

Senjyu, T., H. Enomoto, T. Matsuno: Interannual salinity variation in the Tsushima Strait in summer and its relation to the Changjiang River discharge, Proc. The Indonesia Ocean Forum 2005/the 13th PAMS/JECSS Workshop, CD-ROM, 2005.

Morimoto, A., G. Onitsuka, T. Takikawa, T. Matsuda, T. Senjyu, Y. Mino, S. Mizutani, Y. Kon, and K. Hata: Chlorophyll a distribution around Tsushima/Korea Strait in early winter, The Indonesia Ocean Forum 2005/the 13th PAMS/JECSS Workshop, CD-ROM, 2005.

Hirose, N., Y. Asa, and T. Senjyu: Baroclinic near-inertial oscillation in the Japan/East Sea, The Indonesia Ocean Forum 2005/the 13th PAMS/JECSS Workshop, CD-ROM, 2005.

Zhang, J., M. Hatta, L. Bai and T. Matsuno: Rare earth elements in the marginal seas: Water characterization by chemical tracer, Proc. Workshop on the Marine Environment in the East Asian Marginal Seas, 61-62, 2005.

Matsuno, T., J.-S. Lee, I.-C. Pang and S.-H. Kim: Possibility of the transport at the Kuroshio intermediate water into the Changjiang Diluted Water, Proc. Workshop on the Marine Environment in the East Asian Marginal Seas, 67-70, 2005.

青島　隆，吉村　浩，兼原壽生，森井康宏，山脇信博，村尾　彰，筒井博信，木下宰，神尾光一郎，松野　健：北太平洋西部熱帯域における水温と流速の経年変動,長崎大学水産学部研究報告，８７，５１‐５８ ，２００６.

Senjyu T.（**分担執筆**）: Japan Sea Expeditions for Studies on Water Circulation and Transport Processes of Radionuclides, JAEA-Research 2006-004, 132pp., JAEA-Research, (Eds.) O. Tagawa, T. Ito, T. Kobayashi, S. Otosaka, and T. Suzuki, 2006.

海洋渦動力学

Ocean Eddy Dynamics

教授　今脇　資郎，助教授　市川　香，助手　馬谷　紳一郎

Professor Shiro Imawaki, Associate Professor Kaoru Ichikawa,
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Ichikawa, K., N. Gohda, M. Arai and A. Kaneko: Variations of the Subtropical Counter-Current as seen by repeated ADCP and satellite altimetry data, Proc. of the Indonesia Ocean Forum 2005 and the 13th PAMS/JECSS Workshop, 161-164, 2005.

Tokeshi, R., K. Ichikawa, S. Fujii, K. Sato, S. Kojima: Monitoring velocity field in the upstream of the Kuroshio; Comparisons between HF radar and satellite altimetry observations, Proc. of the Indonesia Ocean Forum 2005 and the 13th PAMS/JECSS Workshop, 170-173, 2005.

Ichikawa, K: Surface velocity monitoring by satellite altimetry and repeated ADCP observations, 2005 IEEE Ingernational Geoscience and Remote Sensing Symposium Proc., 5420-5423, ISBN 0-7803-9051-2, 2005.

Zhang, Z. and K. Ichikawa: Effects of the Kuroshio on coastal sea level south of Japan, 2005 IEEE Ingernational Geoscience and Remote Sensing Symposium Proc., 5428-5431, ISBN 0-7803-9051-2, 2005.

Ambe, D., S. Imawaki, K. Ichikawa and H. Uchida: Detecting the Kuroshio axes south of Japan by using altimeter and drifter data, 2005 IEEE Ingernational Geoscience and Remote Sensing Symposium Proc., 5424-5427, ISBN 0-7803-9051-2, 2005.

Takikawa, T., H. Ichikawa, K. Ichikawa and S. Kawae: Extraordinary subsurface mesoscale eddy detected in the southeast of Okinawa in Feburary 2002, Geophysical Research Letters, 32, L17602, doi:10.1029/2005GL023842, 2005.

Zhang, Z. and K. Ichikawa: Influence of the Kuroshio fluctuations on sea level variations along the south coast of Japan, J. of Oceanography, 61, 979-985, 2005.

Konda, M., H. Ichikawa, I-S. Han, X-H. Zhu, and K. Ichikawa: Variability of current structure due to the meso-sclae eddies on the bottom slope southeast of Okinawa Island, J. of Oceanography, 61, 1089-1099, 2005.

Wakata, Y., T. Setou, I. Kaneko, H. Uchida, and S. Imawaki: Interannual variability of the Kuroshio transport passing through the 137° E meridian in an OGCM related to the North Pacific windstress,J. of Oceanography, 62, 25-35, 2006.

竹内宗之，今脇資郎，馬谷紳一郎，内田　裕，鹿島基彦：四国沖における黒潮の力学構造と水塊構造，月刊海洋，号外（第 43 号），159-169，2006．

柿木康児，今脇資郎，内田　裕，中村啓彦，馬谷紳一郎，仁科文子，市川　洋，Mark Wimbush： IES による四国沖黒潮域における海面力学高度の推定と精度評価，九州大学応用力学研究所所報，第 130 号，11-20，2006．

渡慶次亮子，市川　香，藤井智史，佐藤健治，児島正一郎： 黒潮上流域における衛星海面高度計と HF レーダの観測による流速値の比較，九州大学応用力学研究所所報，第 130 号，29-34，2006．

海洋流体工学

Ocean Engineering

教授　小寺山　亘，助教授　中村　昌彦

Professor　Wataru Koterayama, Associate Professor Masahiko Nakamura

Senga, H. and W.Koterayama: An Experimental and Numerical Study on Vortex Induced Vibrations of a Long Flexible Riser Undergoing Irregular Motion at its Top End, Proc. of the 15th Int. Offshore and Polar Engineering Conf., 148-154, 2005

Nakamura, M. and H.Kajiwara: Development of Automatic Position Adjustable Elevator for Workboat, Proc. of the 15th Int. Offshore and Polar Engineering Conf., Vol.3, 406-413, 2005

大坪和久、千賀英敬、眞鍋崇寛、小寺山亘、梶原宏之：大水深ライザー管のゲインスケジューリング制御の水槽実験について、日本船舶海洋工学会論文集第１号、379-380、2005

Senga, H. and W.Koterayama: An Experimental and Numerical Study on Vortex-induced Vibrations of a Hanging Flexible Riser with Its Top in Irregular Motion, Int. J. of Offshore and Polar Engineering, Vol.15, No.4, 274-281, 2005

Senga, H. and W.Koterayama: Development of a Calculation Method for Vortex Induced Vibration of a Long Riser Oscillating at its Upper End, Engineering Sciences Report, Kyushu University, Vol.27, No.3, 335-341, 2005

中村昌彦、梶原宏之：画像処理を利用した海洋構造物模型の波浪中運動計測（その２運動計測範囲の拡張と３次元運動計測）、西部造船会会報 109 号、13-24、2005

中村昌彦、梶原宏之：画像処理による運動計測のロバスト性向上に関する研究、日本造船学会第 18 回海洋工学シンポジウム、2005

Hara, S., K.Hoshino, H.Kawashima, T.Kano, K.Tanizawa, M.Nakamura, H.Kajiwara, M.Manabe, H.Saiki and K.Ohno: On the Development of New Mooring Suort System Proc. of Int. Maritime Association of the Mediterranean(IMAM2005), 2005

中村昌彦、小寺山亘、山本郁夫、百留忠洋、青木太郎：一万メートル級深海探査機「かいこう」ランチャーの動特性向上、計測自動制御学会、第 6 回システムインテグレーション部門学術講演会、649-650、2005

中村昌彦、梶原宏之：海洋構造物・支援船間の移動の為の可動式乗船装置に関する研究、日本船舶海洋工学会論文集第 2 号、39-48、2005

千賀英敬、小寺山亘、長大弾性管の渦励振とその再現性に関する研究、日本船舶海洋工学会論文集第 2 号、29-37、2006

大坪和久、千賀英敬、眞鍋崇寛、小寺山亘、梶原宏之、大水深ライザー管のゲインスケジューリング制御によるリエントリー実験について、日本船舶海洋工学会論文集第 2 号、49-55、2006

小寺山亘、研究所の海中技術開発 – 九州大学応用力学研究所における海洋観測システムの開発研究– 、日本深海技術協会会報第 48 号、2-9、2006

プラズマ・材料力学

Plasma and Material Science

高エネルギープラズマ

High Energy Plasma Physics

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Zonal flows in plasma – a review,
Plasma Phys. Control. Fusion Vol.47, No.5 (2005), R35-R161,
P. H. Diamond, S.-I. Itoh, K. Itoh and T. S. Hahm

Nonlinear Simulation of Tearing Mode and m=1 Kink Mode Based on Kinetic RMHD Model, Nucl. Fusion Vol.45, No.7 (2005) pp.900-906,
M. Yagi, S. Yoshida, S.-I. Itoh, H. Naitou, H. Nagahara, J.-N. Leboeuf, K. Itoh, T. Matsumoto , S. Tokuda , M. Azumi

Turbulent transport of the ions with large Larmor radii,
Plasma Phys. Control. Fusion, Vol. 47, (2005) pp.1015-1029,
M Vlad, F Spineanu, Sanae-I Itoh, M Yagi, and K Itoh

Coherent structure of zonal flow and onset of turbulent transport,
Phys. Plasmas Vol. 12 (2005) 062303,
K. Itoh, K. Hallatschek, S.-I. Itoh, P. H. Diamond, and S. Toda

Self-sustained annihilation of magnetic islands in helical plasmas,
Phys. Plasmas Vol.12 No.7 (2005) 072512 (1-6), Kimitaka Itoh, Sanae-I. Itoh, and Masatoshi Yagi

Effect of Turbulence Spreading on Subcritical Turbulence in Inhomogeneous Plasmas, Journal of the Physical Society of Japan, Vol.74, No.7 (2005) pp.2001-2006,
K. Itoh, S.-I. Itoh, T.S. Hahm, P.H. Diamond

Impact of Turbulence Spreading on Subcritical Turbulence in Inhomogeneous Plasmas,
Journal of the Physical Society of Japan, Vol.74, No.7 (2005) 2001,
K. Itoh, S.-I. Itoh, T.S. Hahm, P.H. Diamond

Self-annihilation of magnetic islands in helical plasmas,
Phys. Plasmas Vol.12 No.7 (2005) 072512 (1-6),
Kimitaka Itoh, Sanae-I. Itoh, Masatoshi Yagi

On the bicoherence analysis of plasma turbulence,
Phys. Plasmas Vol. 12 No.10 (2005) 102301,
K. Itoh, Y. Nagashima, S-I Itoh, P. H. Diamond, A. Fujisawa, M. Yagi, A. Fukuyama

In “Nonlocal Closures in Long Mean Free Path Regimes Topics in Kinetic Theory” (Edited by T. Passot, C. Sulem and P. L. Sulem,)American Mathematical Society, 2005) pp. 243-261
A. I. Smolyakov, M. Yagi and J. D. Callen

Observation of nonlinear couplings between coherent and turbulent potential fluctuations in ohmically heated plasmas on JFT-2M
Phys. Rev. Lett. 95 (2005) 095002 (1-4)
Y. Nagashima, K. Hoshino, A. Ejiri, K. Shionohara, Y. Takase, K. Tsuzuki, K. Uehara, H. Kawashima, H. Ogawa, T. Ido, Y. Kusama, and Y. Miura

Two decades of plasma physics - Turbulence and structure formation – (in Japanese)
Parity Vol.20, No.11 (2005) 36-38
K. Itoh and S.-I. Itoh

Progress of the theory of zonal flow (in Japanese)
J. Plasma and Fusion Research Vol.81 No.12 (2005) 972-977
K. Itoh and S.-I. Itoh

On the basis of statistical theory of strong turbulence in inhomogeneous plasmas
J. Phys. Soc. Jpn. Vol.75, No.3 (2006) 034501(1-9)
Sanae-I. Itoh, Kimitaka Itoh, Hazime Mori

Convergence study of bispectral analysis in experiments of high temperature plasmas
Rev. Sci. Instrum. 77 (2006) 045110.
Y. Nagashima, K. Itoh, S.-I. Itoh, M. Yagi, A. Fujisawa, K. Hoshino, K. Shinohara, K. Uehara, Y. Kusama, A. Ejiri, and Y. Takase

Turbulence Spreading in Reversed Shear Plasmas
Plasma Phys. Contr. Fusion 48 (2006) A409-A418
M. Yagi, T. Ueda, S.-I. Itoh, M. Azumi, K. Itoh, P. H. Diamond and T.S. Hahm

A model for striation formation in ac PDP discharges,
J. Phys. D: Appl. Phys 39 (2006) 1-5
K. Muraoka, M. Azumi, K. Suzuki, Y. Yamagata and M. Yagi,

高エネルギー材料物性

High Energy Solid State Physics

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Associate Professor Noboru Tsukuda, Research Associate Kazuhito Ohsawa

Ohsawa, K. and E. Kuramoto: Activation energy and saddle point configuration of high-mobility dislocation loops: A line tension model, Phys. Rev. B, Vol. 72, 054105-1-7, 2005.

蔵元英一：格子欠陥研究とともに４０年，応用力学研究所所報，第 129 号，1-24，2005．

大澤一人，蔵元英一：弦モデルによる転位ループの熱活性化過程の解析，応用力学研究所所報，第 129 号，143-150，2005．

Hayashi, Y., Y. Tanaka, T. Kirimura, N. Tsukuda and E. Kuramoto: Determination of the Dynamic Deformation Tensor by Time-resolved Triple Crystal Diffractometry, J. Synchrotron Rad. Vol. 12, 685-689, 2005.

Hayashi, Y., Y. Tanaka, T. Kirimura, N. Tsukuda and E. Kuramoto: Acoustic Pulse Echoes Probed with Time-Resolved X-ray Triple-crystal Diffractometry, Phys. Rev. Lett., 96, 115505-1-4, 2006.

Arakawa, K., M. Hatanaka, E. Kuramoto, K. Ono and H. Mori: Changes in the Burgers Vector of Perfect Dislocation Loops without Contact with the External Dislocations, Phys. Rev. Lett., 96 125506-1-4, 2006.

極限構造材料

Extreme-Circumstances Structural Materials

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Xu, Qiu, N. Yoshida, T. Yoshiie : Dynamic Simulation of Multiplier Effects of Helium Plasma and Neutron Irradiation on Microstructural Evolution in Tungsten, Materials Transactions, Vol. 46, No. 6, pp.1255-1260, 2005.

Nishijima, D., H. Iwakiri, K. Amano, M.Y. Ye, N. Ohno, K. Tokunaga, N. Yoshida, S. Takamura : Suppression of blister formation and deuterium retention on tungsten surface due to mechanical polishing and helium pre-exposure, Nuclear Fusion 45, pp. 669-674, 2005.

岩切宏友、吉田直亮 ： 透過型電子顕微鏡によるヘリウム照射材の微細組織観察，九州大学応用力学研究所所報，第 129 号 pp.155-164，2005

馬場友紹、岩切宏友、吉田直亮 ： 極低エネルギーヘリウム照射されたタングステンの粒界脆化，九州大学応用力学研究所所報，第 129 号，pp．165-169，2005．

Zushi H., K. Nakamura, K. Hanada, K.N.Sato, M. Sakamoto, H. Idei, M. Hasegawa, A. Iyomasa, S. Kawasaki, H. Nakashima, A. Higashijima, T. Kuramoto, A. Tanaka, Y. Matsuo, E. Esaki, H. Akanishi, T. Sugata, H. Hoshika, K. Sasaki, N. Maezono, M. Kitaguchi, N. Imamura, N. Yoshida, K. Tokunaga, T. Fujiwara, M. Miyamoto, M. Tokitani, K. Uehara, Y. Sadamoto, Y. Nakashima, Y. Kubota, Y. Higashizono, Y. Takase, A. Ejiri, S. Shiraiwa, S. Kado, T. Sikama, S. Tsuji-Iio, T. Takeda, Y.Hirooka, K. Ida, Y. Nakamura, T. Fujimoto, A. Iwamae, T. Maekawa, O. Mitarai : Steady-state tokamak operation, ITB transition and sustainment and ECCD experiments in TRIAM-1M, Nuclear Fusion 45, pp. S142-S156, 2005.

Tokitani, M., M. Miyamoto, K. Tokunaga, T. Fujiwara, N. Yoshida, A. Komori, S. Masuzaki, N. Ashikawa, S. Inagaki, T. Kobuchi, M. Goto, J. Miyazawa, K. Nishimura, N. Noda, B.J. Peterson, A. Sagara and LHD experimental group :

Microscopic Modification of wall surface by glow discharge cleaning and its impact on vacuum properties of LHD, Nuclear Fusion 45, pp. 1544-1549, 2005.

Kikuchi, M., H. Tamai, M. Matsukawa, T. Fujita, Y. Takase, S. Sakurai, K. Kizu, K. Tsuchiya, G. Kurita, A. Morioka, N. Hayashi. Y. Miura, S. Itoh, J. Bialek, G. Navratil, Y. Ikeda, T. Fujii, K. Kurihara, H. Kubo, Y. Kamada, N. Miya, T. Suzuki, K. Hamamatsu, H. Kawashima, Y. Kudo, K. Masaki, H. Takahashi, M. Takechi, M. Akiba, K. Okuno, S. Ishida, M. Ichimura, T. Imai, Hashizume, Y. M. Miura, H. Horiike, A. Kimura, H. Tsutsui, M. Matsuoka,Y. Uesugi, A. Sagara, A. Nishimura, A. Shimizu, M. Sakamoto, K. Nakamura, K. Sato, K. Okano, K. Ida, H.R.Shimada, Y. Kishimoto, H. Azechi, S. Tanaka, K. Yatsu, N. Yoshida, M. Inutake, M. Fujiwara, N. Inoue, N. Hosogane, M. Kuriyama, H. Ninomiya : Overview of the National Centralized Tokamak programme, Nuclear Fusion 46, pp. S29-S38, 2006.

三島良直、吉田直亮、河村　弘、土谷邦彦、岩立孝治、内田宗範 ： ベリリウム金属間化合物工業材料　Vol．54，No．1，pp.46-47，2006．

Tsuchiya, K., M. Akiba, H. Azechi, T. Fujii, T. Fujita, M. Fujiwara, K. Hamamatsu, H. Hashizume, N. Hayashi, H. Horiike, N. Hosogane, M. Ichimura, K. Ida, Y. Ikeda, T. Imai, N. Inoue, S. Ishida, S. Itoh, Y. Kamada, H. Kawashima, M. Kikuchi, A. Kimura, K. Kizu, H. Kubo, Y. Kudo, K. Kurihara, G. Kurita, M. Kuriyama, K. Masaki, M. Matsukawa, M. Matsuoka, Y. Miura, Y.M. Miura, N. Miya, A. Morioka, K. Nakamura, H. Ninomiya, A. Nishimura, K. Okano, K. Okuno, A. Sagara, M. Sakamoto, S. Sakurai, K. Sato, R. Shimada, A. Shimizu, T. Suzuki, H. Takahashi, Y. Takase, M. Takechi, H. Tamai, S. Tanaka, H. Tsutsui, Y. Uesugi, K. Yatsu, N. Yoshida : Engineering design and control scenario for steady-state high-beta operation in National Centralized Tokamak, Fusion Engineering and Design 81 pp. 1599-1605, 2006.

Kawamura, H., K. Tsuchiya, Y. Mishima, N. Yoshida, K. Munakata, K. Ishida, Y. Hatano, T. Shibayama, Y. Sato, M. Uchida, S. Tanaka, Status of Beryllium R&D in Japan, Proceedings 7th IEA International Workshop on Beryllium Technology, pp.1-7, 2006.

Yoshida, N., H. Iwakiri, Y. Watanabe : Damage Accumulation in Be12Ti Intermetallic Compound, Proceedings 7th IEA International Workshop on Beryllium Technology, pp.48-52, 2006.

T. Kawakami, K. Tokunaga, N. Yoshida : Effect of low energy helium irradiation on mechanical properties of 304 stainless steel, Fusion Engineering and Design 81, pp. 335-340, 2006.

吉田直亮、菅野隆一朗 ： 照射材断面微細構造解析技術の開発，材料開発のための顕微鏡法と応用写真集（日本金属学会），p.134，2006．

プラズマ表面相互作用

Plasma Surface Interaction

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M. Hasegawa, A. Higashijima, K. Nakamura, K. Hanada, K. N. Sato, M. Sakamoto, H. Idei, S. Kawasaki, H. Nakashima: A Web based integrated data processing system of TRIAM-1M, Journal of Fusion Engineering and Design (Submitted)

K. Nakamura, J. R. Luo, H. Z. Wang, Z. S. Ji, H. Wang, F. Wang, N. Qi, K. N. Sato, K. Hanada, M. Sakamoto, H. Idei, M. Hasegawa, S. Kawasaki, H. Nakashima, A. Higashijima: Magnetic Sensorless Control of Plasma Position and Shape in a Tokamak, Journal of Plasma Science and Technology, Vol. 8, No.1, 80-83, 2006

K. Nakamura, J. R. Luo, H. Z. Wang, Z. S. Ji, H. Wang, F. Wang, N. Qi, K. N. Sato, K. Hanada, M. Sakamoto, H. Idei, M. Hasegawa, S. Kawasaki, H. Nakashima, A. Higashijima: Magnetic Sensorless Control of Plasma Position and Shape in a Tokamak, Proc. JSPS-CAS Core University Program Seminar on Production and Steady State Confinement of High Performance Plasmas in Magnetic Confinement Systems, NIFS-PROC-60, 2005

K. Nakamura, J. R. Luo, H. Z. Wang, Z. S. Ji, H. Wang, F. Wang, N. Qi, K. N. Sato, K. Hanada, M. Sakamoto, H. Idei, M. Hasegawa, S. Kawasaki, H. Nakashima, A. Higashijima: Magnetic Sensorless Control of Plasma Position without Drift Problem in the HT-7 Tokamak, Proc. International Conference on Electrical Engineering 2005, 2005

F. Wang, J. R. Luo, K. Nakamura, K. N. Sato, K. Hanada, M. Sakamoto, H. Idei, M. Hasegawa, S. Kawasaki, H. Nakashima, A. Higashijima: Continuous and

real-time data acquisition system for superconducting tokamaks HT-7 and TRIAM-1M, Fusion Engineering and Design (Accepted)

K. Nakamura, J. R. Luo, H. Z. Wang, Z. S. Ji, H. Wang, F. Wang, N. Qi, K. N. Sato, K. Hanada, M. Sakamoto, H. Idei, M. Hasegawa, A. Iyomasa, S. Kawasaki, H. Nakashima, A. Higashijima: Magnetic Sensorless Control Experiment without Drift Problem on HT-7, Fusion Engineering and Design, Vol. 81, 1607-1612, 2006

O. Mitarai, Y. Takase, A. Ejiri, S. Shiraiwa, H. Kasahara, T. Yamada, S. Ohara, TST-2 Team, K. Nakamura, A. Iyomasa, M. Hasegawa, H. Idei, M. Sakamoto, K. Hanada, K. N. Sato, H. Zushi, TRIAM Group, N. Nishino: Plasma Current Start-up by ECW and Vertical Field in the TST-2 Spherical Tokamak, J. Plasma Fusion Res., Vol. 80, No. 7, 2004

K. Tokunaga, Y. Kubota, N. Noda, Y. Imamura, A. Kurumada, N. Yoshida, T. Sogabe, T. Kato, B. Schedler : Fabrication and High Heat Flux Tests of Plasma Sprayed Tungsten Coated Carbon and TZM, Reports of Research Institute for Applied Mechanics, Kyushu University No. 129, pp.97-101, 2005

K. Tokunaga, T. Kawakami, Y. Miyamoto, N. Yoshida : Surface Modification of Low Energy Helium Ion Implanted Austenitic Stainless Steel by Tensile Stress, Reports of Research Institute for Applied Mechanics, Kyushu University No. 129,pp103-107, 2005

Y. Kubota, S. Masuzaki, T. Morisaki, K. Tokunaga, N. Noda : Design and thermal performance of an improved mechanically attached module for divertor plate of LHD, Fusion Engineering and Design 75-79, pp.297-301, 2005

S. Nagata, S. Yamamoto, K. Tokunaga, B. Tsuchiya, K. Toh and T. Shikama: Hydrogen up-take in noble gas implanted W, Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms, Volume 242, Issues 1-2, January 2006, Pages 553-556

K. Tokunaga, Y. Kubota, N. Noda, Y. Imamura, A. Kurumada, N. Yoshida, T. Sogabe, T. Kato, B. Schedler : Behavior of actively cooled mock-ups with plasma sprayed tungsten coating under high heat flux conditions, Fusion Engineering and Design 81, pp.133-138, 2006.

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Tsumori, H., Y. Sugihara, A. Masuda: Parameterization for CO2 transfer velocity at the surface of wind waves, Journal of Hydroscience and Hydraulic Engineering, Vol.23, No.1, 43-55, 2005.

吉川 裕：日本海深層流の形成機構に関する数値実験，日本流体力学会 年会 2005 講演論文集，AM05-13-006，2005．

吉川 裕，増田 章，丸林 賢次，石橋 道芳，奥野 章：対馬海峡に設置されたHFレーダーの計測精度検証，沿岸海洋研究，Vol.43，1号，69-75，2005．

奥野 章，吉川 裕，増田 章，丸林 賢次，石橋 道芳：短波レーダーにより観測された対馬海峡の潮流，九州大学大学院総合理工学報告，Vol.27，No.1，9-18，2005．

酒井　良介，吉川　裕：日本海深層流の形成機構に関する数値実験，九州大学大学院総合理工学報告，Vol.26, No.4, 423-430, 2005.

Uehara, K. and Saito, Y.: Late Quaternary Evolution of the Yellow/East China Sea Tidal Regime and Its Impacts on Sediments Dispersal and Seafloor Morphology (2005). In: Mega-deltas of Asia-Geological Evolution and Human Impact, Z. Chen, Y. Saito, S.L. Goodbred Jr. Eds, China Ocean Press, Beijing, pp.16-22, 2005.

Uehara, K: Changes of Ocean Tides along Asian Coasts caused by the Post Glacial Sea-level Change. In: Mega-deltas of Asia-Geological Evolution and Human Impact, Z. Chen, Y. Saito, S.L. Goodbred Jr. Eds, China Ocean Press, Beijing, pp.227-232, 2005.

野外計測
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Yanagi,T. and R.Abe (2005): Increase in water exchange ratio due to decrease in tidal amplitude in Ariake Bay, Japan. Continental Shelf Res., 25, 2174-2181.

Yanagi,T., K.Sigimatsu, H.Shibaki, H.R.Shin and H.S.Kim (2005): Effect of tidal flat on thermal effluent dispersion from a power plant. J.Geophys.Res., 10, C03025, doi:10. 1029/2004 JC002385.

Yanagi,T. and T.Hino (2005): Short-term, seasonal, and tidal variation in the Yellow River plume. La mer, 43, 1-7.

Yanagi,T. (2005): "Sato-Umi"; New concept for the coastal sea management. Reports of Research Institute for Applied Mechanics, Kyushu University, 129, 109-111.

Hinata,H., T.Yanagi, T.Takao and H.Kawamura (2005): Wind-induced Kuroshio warm water intrusion into Sagami Bay. J.Geophys.Res., 110, C03023, doi:10.1029/2004JC002300.

Onitsuka,G. and T.Yanagi (2005): Difference in ecosystem dynamics between the northern and southern parts of the Japan Sea: Analyses with two ecosystem models. J.Oceanogr., 61, 415-433.

Manda,A. and T.Yanagi (2005): Seasonal variation of the gravitational circulation in Ariake Bay. Bulletin of the Faculty of Fisheries, Nagasaki University, 86, 17-22.

Manda,A., N.Hirose and T.Yanagi (2005): Feasible method for the assimilation of satellite-derived SST with an ocean circulation model. J.Atmospheric and Ocean Technology, 22, 746-756.

柳　哲雄(2005)：三崎漁協の漁業資源管理．九州大学総合理工学報告、26、431-433．

柳　哲雄(2005)：水理模型実験．月刊　海洋　号外，40、60-62．

柳　哲雄(2005)：大きな干満差が作り出す「宝の海」－　干潟の高い漁業生産性．アクアネット、2005 年 10 月号、18-22．

柳　哲雄(2005)：海洋環境と生態系．港湾、2005 年 12 月号、30-31．

柳　哲雄・阿部良平(2005)：有明海奥部における塩分と DIP・DIN 収支の経年変動．海の研究、14、21-33．

数値計算
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Takikawa, T., J.-H. Yoon and K.-D. Cho: The Tsushima Warm Current through Tsushima Straits estimated from ferryboat ADCP data, Journal of Physical Oceanography, Vol. 35, No. 6, 1154-1168, 2005.

Takikawa, T., J.H. Yoon and K.-D. Cho: Volume transport through the Tsushima Straits from the Sea level difference. J. Oceanogr., Vol. 61, 699-708, 2005.

Yoon, J.H., K. Abe, T. Ogata and Y. Wakamatsu:The effects of wind stress curl dipoles on the Japan Sea /East Sea circulation. Deep Sea Research II, Vol. 52, 1827-1844, 2005.

Teague, W. J., K. L. Tracey, D. R. Watts, J. W. Book, K.-I. Chang, P. J. Hogan, D. A. Mitchell, M.-S. Suk, M. Wimbush and J.-H. Yoon: Observed deep circulation in the Ulleung Basin. Deep Sea Research II, Vol. 52, 1802-1826, 2005.

Mitchell, D. A., D. R. Watts, M. Wimbush, W. J. Teague, K. L. Tracey, J. W. Book, K.-I. Chang , M.-S. Suk and J.-H. Yoon: Upper circulation patterns in the Ulleung Basin. Deep Sea Research II, Vol. 52, 1617-1638, 2005.

Senjyu, T., Hong-Ryeol Shin, Jong-Hwan Yoon, Zentaro Nagano, Hui-Soo An, Sang-Kyung Byun and Chin-Kee Lee: Deep flow field in the Japan/East Sea as deduced from direct current measurements. Deep Sea Research II, Vol. 52, 1726-1741, 2005.

Yoon, J.-H.: The ocean circulation of the Japan/East Sea-—It's Present and Future – .The 2nd workshop on marine environmental engineering, 1-10, 2005.

Yoon, J.-H.: The surface oceanic circulation and ocean litters prediction of the Japan/East Sea. First international workshop on marine litter in the northwest Pacific region., 61-66, 2005.

Hirose, N., I. Fukumori, C.-H. Kim, and J.-H. Yoon: Numerical simulation and satellite altimeter data assimilation of the Japan Sea circulation, Deep Sea Res. II, 52, 1443-1463, 2005.

Hirose, N.: Least-squares estimation of bottom topography using horizontal velocity measurements in the Tsushima/Korea Straits, J. Oceanogr., 61 (4), 789-794, 2005.

Manda, A., N. Hirose, and T. Yanagi: Feasible method for the assimilation of the satellite-derived SST with an ocean circulation model, J. Atmos. Ocean. Tech., 22 (6), 746-756, 2005.

広瀬 直毅, Sergey M. Varlamov, 尹 宗煥: 日本海海況予報システムの構築, 月刊海洋, Vol. 37, No. 4., 270-278, 2005.

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Sato, K.N., S. Kugimiya, S. Nourgostar , T. Aoki, S. Kawasaki, TRIAM Exp. Group : Development of a new non-diaphragm type shock tube for high density plasmas, Proc. of 32nd EPS Conference on plasma Physics, 2005.

Sato, K.N., K. Ichizono, I. Rego, S. Kawasaki, TRIAM Exp. Group : Development of a Precise Size-Controllable Pellet Injector for the Detailed Studies of Ablation Phenomena, Proc. of 32nd EPS Conference on plasma Physics, 2005.

Sato, K.N., T. Aoki, S. Nourgostar, K. Goto, Y. Miyoshi, S. Kawasaki, TRIAM Exp.Group : Population Inversion by Relaxation Time Difference with a Newly Developed Non-Diaphragm Shock Tube and a Supersonic Nozzle Flow, Proc. of the 5th conference of Asia Plasma & Fusion Association, 2005.

Sato, K.N., H. Zushi, K. Hanada, K. Nakamura, M. Sakamoto, H. Idei, M. Hasegawa, S. Kawasaki, T. Nakashima, A. Higashijima, All Japan ST Research Group : New Project of Long Term Sustained Spherical Tokamak in Kyushu University, The 3rd IAEA Technical Meeting on Spherical TORI, St.Petersburg, Russia, 2005.

Zushi, H., K. Nakamura, K. Hanada, K. N. Sato, M. Sakamoto, H. Idei, M. Hasegawa, A. Iyomasa, S. Kawasaki, H. Nakashima, A. Higashijima, T. Kuramoto, A. Tanaka, Y. Matsuo, K. Esaki, H. Akanishi, T. Sugata, H. Hoshika, K. Sasaki, N. Maezono, M. Kitaguchi, N. Imamura, N. Yoshida, K. Tokunaga, T. Fujiwara, M. Miyamoto, M. Tokitani, K. Uehara, Y. Sadamoto, Y. Nakashima, Y. Kubota, Y. Higasizono, Y. Takase, A. Ejiri, S. Shiraiwa, S. Kado, T. Shikama, S. Tsuji-Iio, T. Takeda, Y. Hirooka, K. Ida, Y. Nakamura, T. Fujimoto, A. Iwamae, T. Maekawa

and O. Mitarai : Steady-state tokamak operation, ITB transition and sustainment and ECCD experiments in TRIAM-1M, Nuclear Fusion, Vol. 45, S142-S156, 2005.

Rego, I. da S., K. N. Sato, T. Aoki, K. Goto, Y. Miyoshi, D. Ha Thang, M. Sakamoto, S. Kawasaki and TRIAM Exp. Group : Cryogenic pellets with controlled length for pellet ablation studies, Journal of Fus. Eng. Des. 2006.

Rego, I. da S., K. N. Sato, T. Aoki, K. Goto, Y. Miyoshi, D. Ha Thang, M. Sakamoto, S. Kawasaki and TRIAM Exp. Group : Scheme for Production of Fixed-Sized Cryogenic Pellets for a Carrier Disk-Type Pellet Injector, JJAP, 2006.

Nakashima, K., H.Zushi, N.Maezono, M.Sakamoto, N.Yoshida, K.Tokunaga, Y.Hirooka T.Shikama, S.Kado, N. Nishino, Y. Nakahima, K.Hanada, K.Sasaki, H.Idei, A.Iyomasa, S.Kawasaki, K.N.Sato, H.Nakashima, K.Nakamura, M.Hasegawa, A.Higashijima : Surface temperature dependence of hydrogen Balmerand molybdenum neutral lines from the Mo limiter in TRIAM-1M, Proceedings of 21st IEEE/NPSS Symposium on Fusion Engineering , SOFE05P-159, 2005.

Shikama, T., S. Kado, H. Zushi, A. Iwamae, and S.Tanaka : Local measurement of the plasma emission using the Zeeman effect in TRIAM-1M tokamak, Bulletin of APS 50, 2005.

Sakamoto,M., M. Ogawa, K. Takaki, H. Zushi, K, Nakashima, N. Maezono, T. Sugata, Y. Nakashima, Y. Higashizono, Y. Kubota, A. Higashijima, H. Nakashima, S. Kawasaki, A. Iyomasa, M. Hasegawa, H. Idei, K. Hanada, K. Nakamura, K. N. Sato : Impact of a movable limiter on the global wall recycling in TRIAM-1M. Proc. 32nd European Physics Society Conference on plasma Physics, P5-005, 2005.

Sakamoto,M., K.N. Sato, M. Ogawa, K. Takaki, H. Zushi, K. Nakashima, N. Maezono, T. Sugata, Y. Nakashima, Y. Higashizono, Y. Kubota, A. Higashijima, H. Nakashima, S. Kawasaki, A. Iyomasa, M. Hasegawa, H. Idei, K. Hanada, K. Nakamura : Recent Global Wall Recycling Studies in Long Term Sustained TRIAM-1M Tokamak and its Development in New ST Device in Kyushu University.Proc. of the 5th conference of Asia Plasma & Fusion Association (APFA 2005), (2005)

K. H. Finken, S. S. Abdullaev, M. F. M. de Bock, M. von Hellermann, M. Jakubowski, R. Jaspers, H. R. Koslowski, A. Kramer-Flecken, M. Lehnen, Y. Liang, A. Nicolai, R. C. Wolf, O. Zimmermann, M. de Baar, G. Bertschinger, W. Biel, S. Brezinsek, C. Busch, A. J. H. Donne, H. G. Esser, E. Farshi, H. Gerhauser, B. Giesen, D. Harting, J. A. Hoekzema, G. M. D. Hogeweij, P. W. Huttemann, S. Jachmich, K. Jakubowska, D. Kalupin, F. Kelly, Y. Kikuchi, A. Kirschner, R. Koch, M. Korten, A. Kreter, J. Krom, U. Kruezi, A. Lazaros, A. Litnovsky, X. Loozen, N. J. Lopes Cardozo, A. Lyssoivan, O. Marchuk, G. Matsunaga, Ph. Mertens, A. Messiaen, O. Neubauer, N. Noda, V. Philipps,1 A. Pospieszczyk, D. Reiser, D. Reiter, A. L. Rogister, M. Sakamoto, A. Savtchkov, U. Samm, O. Schmitz, R. P. Schorn, B. Schweer, F. C. Schuller, G. Sergienko, K. H. Spatschek, G. Telesca, M. Tokar, R. Uhlemann, B. Unterberg, G. Van Oost, T. Van Rompuy, G. Van Wassenhove, E. Westerhof, R. Weynants, S. Wiesen, and Y. H. Xu : Toroidal Plasma Rotation Induced by the Dynamic Ergodic Divertor in the TEXTOR Tokamak.Phys. Rev. Lett. 94, 015003, 2005

Ushigome, M., S. Ide, S. Itoh, E. Jotaki, O. Mitarai, S. Shiraiwa, T. Suzuki, et al.:Development of completely solenoidless tokamak operation in JT-60U, Nuclear Fusion, Vol. 46, 207-213, 2006

Idei, H., K. Hanada, H. Zushi, K. Ohkubo, M. Hasegawa, S. Kubo, S. Nishi, A. Fukuyama, K. N. Sato, K. Nakamura, M. Sakamoto, A. Iyomasa, S. Kawasaki, H. Nakashima, A. Higashijima, T. Notake, T. Shimozuma, S. Ito, H. Hoshika, N. Maezono, K. Nakashima, M. Ogawa and the TRIAM experimental group : Electron cyclotron current drive experiments in LHCD plasmas using a remote steering antenna on the TRIAM-1M tokamak, Nuclear Fusion, Vol. 46, No. 5, 489-499, 2006.

Shimozuma, T., S. Kubo, H. Idei et al. : Transition phenomena and thermal transport properties in LHD plasmas with an electron internal transport barrier, Nuclear Fusion, Vol. 45, No.11, 1396-1403, 2005.

Kubo, S., T. Shimozuma, Y. Yoshimura, T. Notake, H. Idei et al. : Extension and characteristics of an ECRH plasma in LHD, Plasma Physics and Controlled Fusion, Vol.47, A81-A90, Sp. Iss. SI Suppl. 5A, 2005.

Notake, T., H. Idei, T. Shimozuma, M. Sato, S. Kubo, S. Ito, Y. Takita, K. Ohkubo, Y. Yoshimura, S. Kobayashi, Y. Mizuno, T. Watari, R. Kumazawa, M. A. Shapiro

and R. J. Temkin : Evaluation of phase correcting mirrors for an 84 GHz gyrotron based on direct phase measurements at low-power level, Fusion Eng. and Design, Vol. 73, 9-18, 2005.

Notake, T., H. Idei et al. : A real time polarization monitor developed for high power ECRH/ECCD experiments in LHD, Review of Science Instruments, Vol. 76, 023504, 2005.

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石井大輔：瀬戸内海におけるリン・窒素の起源，応用力学研究所技術職員技術レポート，Vol.7，1-10，2006．

石井大輔：水質制御指標を用いた瀬戸内海の水域特性評価，応用力学研究所技術職員技術レポート，Vol.7，11-18，2006．

馬田俊雄：再可視化実験を振り返って，応用力学研究所技術職員技術レポート，Vol.7，１９-24，2006．

馬田俊雄：斜め衝突のメカニズム，応用力学研究所技術職員技術レポート，Vol.7 ，２５-40，2006．

石橋道芳、丸林賢次：海洋レーダーの運用と維持管理について，応用力学研究所技術職員技術レポート，Vol.7 ，41-50，2006．

杉谷賢一郎：九州大学新キャンパスの風況実験，応用力学研究所技術職員技術レポート，Vol.7，51-56，2006．

渡辺公彦、牛原武司：風力発電用コンパクト鍔付きディフューザの製作，応用力学研究所技術職員技術レポート，Vol.7，57-63，2006．

丸林賢次、安永 誠、石橋道芳 ：表層流計測ブイの試作について，応用力学研究所技術職員技術レポート，Vol.7，64-71，2006．

丸林賢次、安永 誠、稲田 勝、石橋道芳：強流域での係留ブイ式による測流，応用力学研究所技術職員技術レポート，Vol.7，72-77，2006．

丸林賢次：ペルチェ素子を使用した除湿装置の試作，応用力学研究所技術職員技術レポート，Vol.7，78-84，2006．

石井大輔：緯度・経度から平面直角座標系への変換について，応用力学研究所技術職員技術レポート，Vol.7，85-90，2006．

石井大輔：電子業務記録簿（Excel 自動暦ツール）の作製，応用力学研究所技術職員技術レポート，Vol.7，91-98，2006．

中野　智：一方向性凝固法による熱流動解析の試み，応用力学研究所技術職員技術レポート，Vol.7，99-109，2006．

馬田俊雄：移動平均法によるノイズ除去と波形変化の関係の具体的考察，応用力学研究所技術職員技術レポート，Vol.7，110-113，2006．

稲田　勝：ポテンショメータによる変位計測法，応用力学研究所技術職員技術レポート，Vol.7，114-120，2006．

石井幸治：応用力学研究所での４０年を振り返って，応用力学研究所技術職員技術レポート，Vol.7，121-133，2006．

松原監壮，黄木景二，高雄善裕，岡部永年： 電子部品 Au-Sn 共晶接合層の組成分析 -PVD 多層膜からの Au と Pt の拡散-，表面技術協会第 112 回講演大会講演集，5E-18，pp.254-255，2005．

松原監壮，汪文学，高雄善裕，（招待講演）ＥＰＭＡを用いた先進材料の機能性評価 -航空宇 宙・核融合・医療の分野で使用されている先進材料の場合-，第 23 回マイクロアナリシス研究懇談会講演集，pp.11.1-11.9，2005.

石井大輔，柳哲雄：瀬戸内海に存在する太平洋起源のリン・窒素，沿岸海洋研究，４３，119-127，2006.

馬田俊雄，小松治男，佐藤正矩，清水哲雄，竹原幸生，江藤剛治，新川和夫：ゴルフボール斜め衝突の接触中における軌跡評価, 機械学会年次大会, 調布, 337-338, 2005.

中野　智：マルチヒータを使用した一方向性凝固法によるシリコン多結晶の熱流動解析，九州大学応用力学研究所所報，第１３０号，21-27，2006.