

Discretionary Collaborative Research Project 2017, IFS, Tohoku University

Project Code	Project Title	Applicant	Institution	IFS responsible member or non-IFS responsible member	Institution
J17L017	Experimental Study on Unsteady Aerodynamic Characteristics of a Badminton Shuttlecock	Hasegawa Hiroaki	Utsunomiya University	Nagai Hiroki	Tohoku University
J17L019	Technical development for the micro shape forming used by compression shearing method at room temperature	Nakayama Noboru	Shinshu University	Takagi Toshiyuki	Tohoku University
J17L020	Analysis of low and high temperature plasma characteristics and its effects on material surface	Yamada Gouji	Tokai University	Obayashi Shigeru	Tohoku University
J17L021	The effects of unburned-gas temperature and heat loss on the dynamics of flames in premixed combustion	Kadowaki Satoshi	Nagaoka University of Technology	Kobayashi Hideaki	Tohoku University
J17L024	Development of high thermal efficiency plasma torch for fine particle synthesis using vortex plasma jet	Ando Yasutaka	Ashikaga Institute of Technology	Nishiyama Hideya	Tohoku University
J17L027	The quantitative density measurement of unsteady flow around a projectile	Ota Masanori	Chiba University	Nagai Hiroki	Tohoku University
J17L028	Shock-fabric interaction	Loïc Ehrhardt	French-German research Institute of Saint-Louis	Sun Mingyu	Tohoku University
J17L041	Numerical Analysis on Supersonic Flow Control using High Repetitive Laser Pulses	Iwakawa Akira	Nagoya University	Obayashi Shigeru	Tohoku University
J17L042	Study of the unsteady flow at near Mach number 1.0	Kikuchi Takamasa	Nihon University	Ohtani Kiyonobu	Tohoku University
J17L046	Physicochemical modelling in computations of high-enthalpy hypersonic flows with strong shock waves	Georgy Shoev	Khristianovich Institute of Theoretical and Applied Mechanics SB RAS (ITAM)	Yonemura Shigeru	Tohoku University
J17L050	Aerodynamic design of lighter-than-air hull for captive high-altitude platform system	Chiba Kazuhisa	The University of Electro-Communications	Obayashi Shigeru	Tohoku University
J17L054	Combustion characteristics of biogas at various pressures	Willyanto Anggono	Petra Christian University	Hayakawa Akihiro	Tohoku University
J17L058	Investigation of nozzle flows at low Reynolds numbers	Yevgeniy Bondar	Khristianovich Institute of Theoretical and Applied Mechanics, SB RAS	Maruta Kaoru	Tohoku University
J17L061	Aeroacoustics of Low Reynolds Number Flows Via Dynamic Hybrid RANS/LES and Stochastic Noise Generation and Radiation	Sescu Adrian	Mississippi State University	Hattori Yuji	Tohoku University
J17L062	Heat and Fluid Flow Characteristics of Liquid Film Flow along Heat Transfer Surface with Microscopic Grooves	Adachi Takahiro	Akita University	Okajima Junnosuke	Tohoku University

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J17L063	Numerical simulation and experimental observation of the blood cells behavior in microcirculation	Fukui Tomohiro	Kyoto Institute of Technology	Hayase Toshiyuki	Tohoku University
J17L067	Mechanism of charge transfer in water by exposure to a cold atmospheric plasma for sanitization device	Sato Takehiko	Tohoku University	Shimizu Tetsuji	terraplasma GmbH
J17L068	Inactivation of virus by a plasma flow in a closed small vessel	Sato Takehiko	Tohoku University	Oshitani Hitoshi	Tohoku University
J17L073	A study of laser thermotherapy using radiation element method	Sakurai Atsushi	Niigata University	Okajima Junnosuke	Tohoku University
J17L074	The effect of surface scattering on the resistance of oxygen transport in catalyst layer	Tokumasu Takashi	Tohoku University	Kinefuchi Ikuya	Tokyo University
J17L075	Quantum Molecular Analysis for growth of carbon related thin films	Tokumasu Takashi	Tohoku University	Kaneko Satoru	Kanagawa Industrial Technology Center
J17L077	Development of Conservative Kinetic Force Method	Vladimir Saveliev	National Center of Space Researches and Technologies	Yonemura Shigeru	Tohoku University
J17L079	Thermodynamic Effect on Tip Leakage Vortex Cavitation	Kang Donghyuk	Aoyama Gakuin University	Iga Yuka	Tohoku University
J17L081	An analysis of thermophysical properties of hydrogen/oxygen mixture at transcritical/supercritical state	Tokumasu Takashi	Tohoku University	Tsuda Shin-ichi	Kyushu University
J17L089	Numerical Analysis of In-flight Sprayed Particles in Plasma Jet for a Thermal Plasma Spray with Externally Applied Magnetic Field	Fujino Takayasu	University of Tsukuba	Takana Hidemasa	Tohoku University
J17L090	Search for high L/D wing based on flying animal and its aerodynamic characteristics	Kawazoe Hiromitsu	Tottori University	Obayashi Shigeru	Tohoku University
J17L092	Study on improvements of new material nano devices by the neutral beam process	Endo Kazuhiko	National Institute of Advanced Industrial Science and Technology (AIST)	Samukawa Seiji	Tohoku University
J17L094	Developements of Germanium Light Emitting Devices by Neutral Beam Process	Sawano Kentarou	Tokyo City Univesity	Samukawa Seiji	Tohoku University
J17L098	Topology-based multisensory realization of wake turbulence	Takeshima Yuriko	Tokyo University of Technology	Obayashi Shigeru	Tohoku University
J17L099	Seminar for next generation sensors for super-high temperature environment (Phase III)	Uchimoto Tetsuya	Tohoku University	Yaguchi Hitoshi	Intelligent Cosmos Research Institute
J17L101	Surface Pressure Measurement over Free Flight Object in Ballistic Range Facility	Sakaue Hirotaka	University of Notre Dame	Nagai Hiroki	Tohoku University