

MASAFUMI EDAMOTO

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EDUCATION

Kyushu University Doctoral student Advanced Space Propulsion Laboratory Department of Advanced Energy Engineering Science	<i>2017–Present</i>
University of Stuttgart Non-degree Ph.D student, for 1 year Institut für Raumfahrtsysteme	<i>2019</i>
Kyushu University Master of Engineering Advanced Space Propulsion Laboratory Department of Advanced Energy Engineering Science	<i>2015–2017</i>
Kochi University of Technology B.S. in Aerospace Engineering	<i>2013–2015</i>
Kitakyushu National College of Technology Associate degree in Electronics and Control Engineering	<i>2008–2013</i>

EMPLOYMENT

Teaching Assistant Department of Advanced Energy Engineering Science, Kyushu University	<i>2017–2018</i>
Research Assistant Department of Advanced Energy Engineering Science, Kyushu University	<i>2017–2018</i>
Teaching Assistant for high school students Super Science High school, a national program of Japan	<i>2017–2018</i>

AWARDS AND HONORS

Research Fellowship for Young Scientists (DC2) Japan Society for the Promotion of Science	<i>2020–2022</i>
Overseas Challenge Program for Young Researchers Japan Society for the Promotion of Science	<i>2019</i>
TEIJIN scholarship TEIJIN scholarship foundation	<i>2017-2020</i>
Total exemption from repayment for graduate school students with particularly outstanding academic achievements Japan Student Services Organization(JASSO) JASSO scholarship (actually, it's a loan) is the most common scholarship in Japan. When we get	<i>2017</i>

particularly outstanding academic achievements (Class results, Conference presentations, Awards, and so on), we can get exemption from repayment. Almost 10 % of the scholarship student can get the total exemption each year.

Best Student Award 2017
Department of Advanced Energy Engineering Science, Kyushu University

Hatakeyama Award 2015
The Japan Society of Mechanical Engineers

Excellent Academic Award 2014
President's Award, Kochi University of Technology

PUBLICATIONS AND PRESENTATIONS

Journal Articles

1. M. Edamoto, T. Morita, N. Saito, Y. Itadani, S. Miura, S. Fujioka, H. Nakashima, and N. Yamamoto, "Portable and noise-tolerant magnetic field generation system", *Review of Scientific Instruments*, 89, 094706, 2018
2. N. Saito, N. Yamamoto, T. Morita, M. Edamoto, H. Nakashima, S. Fujioka, A. Yogo, H. Nishimura, A. Sunahara, Y. Mori, and T. Johzaki, "Experimental demonstration of ion extraction from magnetic thrust chamber for laser fusion rocket", *Japanese Journal of Applied Physics*, volume 57, 5, 2018
3. Y. Itadani, T. Morita, N. Saito, M. Edamoto, T. Kojima, M. Takagi, K. Nagashima, S. Fujioka, A. Yogo, H. Nishimura, A. Sunahara, Y. Mori, T. Johzaki, H. Nakashima, and N. Yamamoto, "Thomson Scattering Measurement of Laser-Produced Plasma in a Magnetic Thrust Chamber", *Plasma and Fusion Research*, volume 13, 1306016, 2018
4. T. Morita, M. Edamoto, S. Miura, A. Sunahara, N. Saito, Y. Itadani, T. Kojima, Y. Mori, T. Johzaki, Y. Kajimura, S. Fujioka, A. Yogo, H. Nishimura, H. Nakashima, and N. Yamamoto, "Control of unsteady laser-produced plasma-flow with a multiple-coil magnetic nozzle", *Scientific Reports*, volume 7, 8910, 2017
5. T. Morita, N. Yamamoto, R. Kawashima, N. Saito, M. Edamoto, S. Fujioka, Y. Itadani, T. Johzaki, S. Miura, Y. Mori, H. Nishimura, A. Sunahara, A. Yogo, and H. Nakashima, "Plasma structure and energy dependence in a magnetic thrust chamber system", *Journal of Physics: Conference Series*, 717, 012071, 2016
6. H. Kono, M. Edamoto, Y. Kakinami, and M. Yamamoto, "Development of a Mobile Operational System for Small High-Altitude Balloons Evaluated by a Collaborative Flight Experiment", *Transactions of JSASS*, Vol.14, No.ists30, pp.Pk_103–Pk_110, 2016

Conferences

1. M. Edamoto, T. Morita, Y. Nishioka, H. Nakashima, N. Yamamoto, and S. Namba, "Experimental demonstration of thrust vectoring magnetic nozzle with multi-axis thrust measurement system", 36th International Electric Propulsion Conference, Vienna, Austria, September 2019
2. M. Edamoto, N. Saito, T. Morita, T. Kojima, M. Takagi, H. Nakashima, A. Sunahara, S. Fujioka, H. Nishimura, A. Yogo, Y. Kajimura, Y. Mori, T. Johzaki, N. Yamamoto, "準定常磁気ノズルを用いたレーザー生成プラズマの制御および推力発生機構の実証", 62nd Space Sciences and Technology Conference, 2N11, Kurume, Japan, October 2018 (In Japanese)

3. M. Edamoto, A. Sunahara, T. Morita, N. Saito, Y. Itadani, T. Kojima, M. Takagi, S. Fujioka, A. Yogo, H. Nishimura, Y. Mori, T. Johzaki, H. Nakashima, and N. Yamamoto, “The numerical simulations of the plasma control method using a divergent magnetic field for a laser fusion rocket”, Plasma Conference 2017, 22Gp-05, Himeji, Japan , November 2017 (In Japanese)
4. M. Edamoto, N. Saito, T. Morita, N. Yamamoto, S. Miura, Y. Itadani, T. Kojima, H. Nakashima, A. Sunahara, S. Fujioka, A. Yogo, H. Nishimura, Y. Mori, and T. Johzaki “Parametric Numerical Analysis in Plasma behaviors in a Magnetic Nozzle for a Laser Fusion Rocket”, 35th International Electric Propulsion Conference, Atlanta, GA, USA , October 2017
5. M. Edamoto, N. Saito, T. Morita, N. Yamamoto, A. Sunahara, R. Kawashima, S. Miura, Y. Itadani, H. Nakashima, S. Fujioka, A. Yogo, H. Nishimura, Y. Mori, and T. Johzaki “Development of a magnetic thrust chamber for a laser fusion rocket”, 52nd AIAA/SAE/ASEE Joint Propulsion Conference, AIAA 2016-4683, Salt Lake City, UT, USA , July 2016
6. M. Edamoto, N. Saito, T. Morita, N. Yamamoto, R. Kawashima, S. Miura, H. Nakashima, S. Fujioka, A. Yogo, H. Nishimura, Y. Mori, and T. Johzaki, “The time evolution of plasma and magnetic field structure in a magnetic thrust chamber”, The 8th Asian Joint Conference on Propulsion and Power, AJCPP2016-091, Takamatsu, JAPAN, March 2016
7. M. Edamoto, N. Saito, T. Morita, N. Yamamoto, A. Sunahara, R. Kawashima, H. Nakashima, S. Fujioka, A. Yogo, H. Nishimura, A. Sunahara, Y. Mori, and T. Johzaki, “The Behavior of Plasma in a Magnetic Thrust Chamber For Laser Fusion Rocket”, Space Transportation Symposium, STEP-2015-068, Sagamihara, JAPAN, January 2016 (In Japanese)
8. M. Edamoto, H. Kono, Y. Kakinami, and M. Yamamoto, “Development of an Autonomous Guidance System with a Wire-Controlled Parafoil for Small Flying Objects”, 30th International Symposium on Space Technology and Science, 2015-d-46, Kobe, JAPAN, July 2015

INTERNSHIPS

Institute for Q-shu Pioneers of Space Inc. (iQPS Inc.)*

2017–Present

iQPS SAR satellite project intern

As a project intern in charge of On Board Computer, took lead in designing the system for real-time processing in Attitude Orbit Control System

*iQPS Inc. is a space start-up, developing and manufacturing innovative satellites in Japan. iQPS Inc. has developed the world first SAR (Synthetic Aperture Radar) system (antenna + transponder) for less than 100kg satellite on December 2016 and scheduled to launch its first 100kg SAR satellite in 2019 1H. Raised 2.35 billion yen (around US\$21.3 million) as a Series A finance in October 2017.

JAXA/ISAS Funaki Laboratory

2013

Summer internship about a quasi-steady MPD thruster and a PFN circuit, for 40 days

OTHER ACTIVITIES

KOSEN Robot Contest

2008–2012

KOSEN(College of Technology) Robot Contest is a nationwide robot contest in Japan. I participated it as an embedded system engineer.