CURRICULUM VITAE

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Oak Ridge National Laboratory, Oak Ridge, Tennessee 37830, USA.

Professional Experiences as of 11/21/2023: 6 years 11 months

Institution/Organization	Start Date	End Date	Designation	Type of work
Oak Ridge National Laboratory, Oak Ridge, TN 37830, USA	08/02/2021	Continue	Postdoctoral Research Associate	Research
Plasma Research Center, University of Tsukuba, Tsukuba, Ibaraki 305-8577, Japan	04/01/2021	07/31/2021	Researcher	Research
National Institute for Fusion Science (NIFS), Toki, Gifu 509-5292, Japan	04/01/2019	03/31/2021	Center of Excellence Researcher	Research
Plasma Research Center, University of Tsukuba, Tsukuba, Ibaraki 305-8577, Japan	04/01/2018	03/31/2019	Researcher	Research
Atish Dipankar University of Science & Technology, Dhaka, Bangladesh	06/12/2013	09/22/2014	Lecturer	Teaching & Research

Education Qualification:

Degree	Awarding Year	University	Subject	Grade
Doctor of Philosophy in Science	2018	University of Tsukuba, Japan	Physics (Plasma Physics)	Awarded **(Awarded with Dean's award)**
Master of Science	2013	University of Rajshahi, Bangladesh	Applied Physics & Electronic Engineering	CGPA 4.00 out of 4.00
Bachelor of Science	2011	University of Rajshahi, Bangladesh	Applied Physics & Electronic Engineering	CGPA 3.82 out of 4.00

Demonstrated research & development, problem-solving, writing and presentation skills:

- Presentation at the conferences: 21 (Oral: 7, Poster: 14)
- Journal papers: 31 (1st author: 14) https://orcid.org/0000-0003-2019-4001
- Completed Ph.D., M.Sc., and B.Sc. theses

Awards	1. Received the **Dean's award**, Graduate School of Pure and Applied Sciences, University of Tsukuba, Tsukuba, Japan, March 23, 2018. 2. Received the **best poster award** at the 8th Korea-Japan seminar on advance diagnostic for the steady-state fusion plasma, 24-27 August 2016, Busan, Korea. 3. Received the **Japan government MEXT Scholarship** for Ph.D. study in the University of Tsukuba, Japan (October 2014 to March 2018).

Demonstrated Transferable Skills

- **Grant writing Application:**
  - Contributed to the successful writing of a SciDAC (https://www.scidac.gov/) proposal titled "Center for Simulation of Plasma - Liquid Metal Interactions in Plasma Facing Components and Breeding Blankets of a Fusion Power Reactor." (**Awarded**)
- **Software and Data Analysis Proficiency:**
  - Proficient in Microsoft applications (Windows, Excel, Word, PowerPoint).
  - Skilled in data analysis tools, numerical simulations, MATLAB, Python, and computer programming (C, Fortran), resulting in the improvement of several plasma fluid codes.
  - A keen analytical prowess by conducting in-depth analyses of experimental and simulations data, extracting valuable insights into the underlying physics, resulting in publications in peer-reviewed journals and presentations at conferences.
- **R&D (Research and Development) and Presentation Proficiency:**
  - Led multiple research projects with diverse teams, resulting in innovative solutions for understanding various physics issues in fusion devices.
  - Able to summarize and present key research outputs clearly in meetings/conferences.
  - Regularly presented key research outputs at group meetings, effectively communicating complex findings to diverse audiences.
  - Proficient in writing scientific papers and technical reports.
- **Problem Solving and Understanding new concepts quickly:**
  - Ability to recognize, analyze, and solve a variety of problems within the deadline.
- **Working as a team:**
  - Experience working on multiple projects simultaneously.
  - Collaborative work with a broad and diverse team, including experimentalists and computational colleagues, on domestic and international facilities.
- **Adaptability and Time Management:**
  - Ability to function well in a fast-paced environment.
  - Skilled in setting priorities, accomplishing multiple tasks within deadlines, and moving rapidly between different task areas.
  - Quick understanding of new concepts.
- **Communication Skills:**
  - Effective communication with a diverse team at various career stages in scientific and engineering disciplines.
- **Continuous Learning:**
  - Continually updating knowledge and willingness to learn new techniques for understanding and solving physics and engineering problems.
- **Multilingual Proficiency:**

•**English**: Native level; **Bengali**: Mother tongue; **Japanese** : Basic Conversational level

- **Mentoring and Leadership**:
  - Successfully supervised undergraduate students and interns.
  - Led the writing of papers and presented key research findings in group meetings.
  - Performed leadership roles in planning, proposing, and executing experiments within the GAMMA 10/PDX linear fusion device.
  - Served as a technical reviewer for several peer-reviewed journals.

Oral presentations at the Conferences, Workshops: 7

1. **M.S. Islam**, et al., "Towards an MPEX Digital Twin: Validation studies using Proto MPEX and SOLPS ITER", 11th Annual Oak Ridge Postdoctoral Association Research Symposium, Oak Ridge National Laboratory, May 18-19, 2023, Oak Ridge, TN, US.
2. **M.S. Islam**, et al., "Modelling of Fast Flow Liquid Lithium Divertor for a Fusion Nuclear Science Facility (FNSF) using SOLPS-ITER", the 7th International symposium on liquid metals application for fusion, 12-16 December 2022, Kasugai, Japan
3. **M.S. Islam et al**., "Plasma response modeling with SOLPS-ITER for liquid metal PFCs in Fusion Nuclear Science Facility (FNSF)", The 2nd US-Japan Workshop on "Power and particle control in a steady state magnetic fusion DEMO reactor by liquid metal PFCs", March 8-12, 2022, Kasugai, Japan
4. **M.S. Islam**, et al., "Study of the Transient Behaviour of Detached Plasma during Xe Gas Injection into the D-module of GAMMA 10/PDX", The 28th International Toki Conference on Plasma and Fusion Research (**ITC28**), 5-8 NOV 2019, Toki, Japan.
5. **M.S. Islam, et al.**, "Study of the plasma parameters in the D-module of GAMMA 10/PDX during impurity gases injection", 12th International Conference on Open Magnetic Systems for Plasma Confinement (**OS2018**), 27-31 August 2018, Tsukuba, Japan.
6. **M.S. Islam**, et al., "Numerical Simulation Study of Plasma Behavior in the End-cell of GAMMA 10/PDX by Using a Multi-Fluid Code LINDA", the 6th International workshop on Plasma Material Interaction Facilities for Fusion Research (**PMIF**), 1-3 Nov 2017, Tsukuba, Japan.
7. **M.S. Islam**, et al.,"Numerical Simulation of Detached Plasma in the End-Cell of GAMMA 10/PDX for Divertor Simulation Study", the 1st International Symposium All-about-Divertor (**IADiS-1**), 14- 15 October, 2016, Kyoto, Japan.

Peer-reviewed journal papers as of 11/21/2023: 31 total, 14 first author

- **h index: 8** (https://www.scopus.com/authid/detail.uri?authorId=57189367962)

1. **M.S. Islam**, J.D. Lore, C. Lau, J. Rapp, "Analysing the effects of heating and gas puffing in Proto-MPEX helicon and auxiliary heated plasmas", **Plasma Physics and Controlled Fusion**, **65** 095020 (2023).
2. **M.S. Islam**, J.D. Lore, S. Smolentsev, C.E. Kessel, "Divertor geometry modeling with the SOLPS-ITER code for reactor concepts with liquid metal divertors", **Nuclear Materials and Energy**, **33** 101292 (2022).
3. J.D. Lore, **M.S. Islam**, C.E. Kessel, D. Curreli, R. Maingi, M. Rezazadeh, S. Smolentsev, "Simulation of Liquid Lithium Divertor Geometry using SOLPS-ITER", **IEEE Transactions on Plasma Science**, **50** (11), 4199 (2022).
4. **M.S. Islam**, Y. Nakashima, A. Hatayama, K. Hoshino, and M. Sakamoto, "Impact of Neutral Gas Puffin g on the Divertor Power Exhaust and Particle Control in GAMMA 10/PDX by the LINDA-KNMC Code", **Contributions to Plasma Physics, 62**, e202100141 (2022).
5. M. Yoshikawa, J. Kohagura, N. Ezumi, T. Iijima, K. Nojiri, A. Terakado, Y. Nakashima, T. Kariya, T. Numakura, M. Hirata, R. Minami, M. Sakamoto, M. Ichimura, **M.S. Islam**, Y. Shima, R. Yasuhara, I. Yamada, H. Funaba, T. Minami, N. Kenmochi, D. Kuwahara, and H.J. van der Meiden "Study of

detached plasma profile in the divertor simulation experimental module of tandem mirror GAMMA 10/PDX", **AIP Advances** 11, 125231 (2021) (**Selected as a featured article**)

6. **Md Shahinul Islam**, Yousuke Nakashima, Seiji Ishiguro, Kazuo Hoshino, Akiyoshi Hatayama, Hiroki Hasegawa, Mizuki Sakamoto, "Numerical Simulation Study of the Magnetic Flux Tube Expansion on the Divertor Plasma Parameters by the LINDA Code", **Plasma and Fusion Research**, Vol. **16**, 2403049 (2021).
7. **M.S. Islam**, S Ishiguro, H. Hasegawa, T. Pianpanit "Study of energy loss processes during H gas puffing by the PIC simulation", **Nuclear Materials and Energy**, Vol. **27**, 100995 (2021).
8. **Md Shahinul Islam**, Yousuke Nakashima, Takaaki Iijima, Kunpei Nojiri, Naomichi Ezumi, Masayuki Yoshikawa, Tsuyoshi Kariya, Ryutaro Minami, Mafumi Hirata, Kazuo Hoshino, Akiyoshi Hatayama, Hiroki Hasegawa, Seiji Ishiguro, Hiroto Matsuura, Mizuki Sakamoto, "Study of the transient behavior of detached plasma during Xe gas injection into the D-module of GAMMA 10/PDX", **Plasma and Fusion Research**, Vol. **15**, 1402074 (2020). (**Selected as a featured article**)
9. **M.S. Islam**, Y. Nakashima, A. Hatayama, S Ishiguro, K Hoshino, N Ezumi, M Sakamoto, "Study of end-cell plasma parameters of GAMMA 10/PDX by the LINDA code", **Plasma Physics and Controlled Fusion,** Vol. **61**, pp- 125005 (2019).
10. Takaaki Iijima, Toshiki Hara, Kunpei Nojiri, Akihiro Terakado, **Md Shahinul Islam**, Tsubasa Yoshimoto, Sotaro Yamashita, Naomichi Ezumi, Mizuki Sakamoto, Yousuke Nakashima, "Characteristics of Upstream and Downstream Plasma Parameters from Langmuir Probes and Visible Spectrometers in the D-Module of GAMMA 10/PDX", **Plasma and Fusion Research**, Vol. **14**, pp-2401156 (2019).
11. Kazuya Ichimura, Sotaro Yamashita, Yousuke Nakashima, Masakatsu Fukumoto, Mamoru Shoji, Mizuki Sakamoto, Naomichi Ezumi, **Md Shahinul ISLAM**, Akihiro Terakado, Kunpei Nojiri, Tsubasa Yoshimoto, Hiromasa Takeno, "Study on the Sensitivity of Fast Ionization Gauge in Mixture Gas of Hydrogen and Helium", **Plasma and Fusion Research**, Vol. **14**, pp- 3405124 (2019).
12. N. Ezumi, T. Iijima, M. Sakamoto, Y. Nakashima, M. Hirata, M. Ichimura, R. Ikezoe, T. Imai, T. Kariya, I. Katanuma, J. Kohagura, R. Minami, T. Numakura, M. Yoshikawa, S. Togo, **M.S. Islam**, M. M. Islam, K. Nojiri, A. Terakado, S. Jang, Y. Kinoshita, T. Mikami1, S. Yamashita, T. Yoshimoto, T. Hara, A. Hatayama, K. Ichimura, S. Kado, S. Masuzaki, T. Nakano, N. Ohno, S. Sawada, H. Tanaka, A. Tonegawa and R. Perillo, "Synergistic effect of nitrogen and hydrogen seeding gases on plasma detachment in the GAMMA 10/PDX tandem mirror", **Nuclear Fusion**, Vol. **59,** pp-066030 (2019).
13. H. Matsuura, M. Ochuchi, **M.S. Islam**, T. Iijima, T. Minami, Y. Nakashima, "Comparison of two invers heat conduction models for heat flux measurement in the GAMMA 10/PDX", **IEEE Transactions on Plasma Science**, Vol. **47**, pp-3026-3030 (2019).
14. **M.S. Islam**, Y. Nakashima, S. Takechi, R. Tatsumi, A. Hatayama, T. Iijima, S. Yamashita, T. Yoshimoto, T. Hara, N. Ezumi, M. Sakamoto, "Effects of the gas puffing neutral on the plasma parameters in the end-cell of GAMMA 10/PDX by using the multi-fluid code "LINDA", **Nuclear Materials and Energy**, Vol. **18**, pp-182-187 (2019).
15. Y. Nakashima, **M.S. Islam**, T. Iijima, M. Sakamoto, N. Ezumi, M. Yoshikawa, N. Asakuraa, M. Fukumotoa, A. Hatayamab, M. Hirata, M. Ichimura, R. Ikezoe, T. Imai, M.M. Islam, T. Kariya, J. Kohagura, S. Masuzakic, R. Minami, T. Nakanoa, K. Nojiri, T. Numakura, K. Sawadad, M. Shoji, A. Terakado, S. Togo, S. Yamashita, T. Yoshimoto, "Impact of additional plasma heating on detached plasma formation in divertor simulation experiments using the GAMMA 10/PDX tandem mirror", **Nuclear Materials and Energy,** Vol. **18**, pp-216-221 (2019).
16. **Md Shahinul ISLAM**, Yousuke NAKASHIMA, Akiyoshi HATAYAMA, Hiroto MATSUURA, Kazuya ICHIMURA, Takaaki IIJIMA, Takayuki YOKODO, Kunpei NOJIRI, "Measurements of the Plasma Parameters in the D-Module of GAMMA 10/PDX during Impurity Gas Kr Injection", P**lasma and Fusion Research,** Vol. **14**, pp-2402016 (2019).
17. Md. Maidul ISLAM, Shinji KOBAYASHI, Nobuhiro NISHINO, **Md. Shahinul ISLAM**, Takaaki IIJIMA, Masayuki YOSHIKAWA, Junko KOHAGURA, Mamoru SHOJI and Yousuke NAKASHIMA, "Sensitivity check of background plasma parameter during SMBI in the GAMMA 10 central-cell by 3-D Monte-Carlo simulations", **Plasma and Fusion Research**, Vol. **14**, pp-2403017 (2019).

18. Sayuri Takechi, Ryoko Tatsumi, **Md Shahinul Islam**, Kazuo Hoshino, Akiyoshi Hatayama, Yousuke Nakashima, "Analysis of Ar Impurity Transport in the Large Tandem Mirror Device GAMMA 10/PDX Plasmas", **Plasma and Fusion Research**, Vol. **14**, pp-2403045 (2019).
19. Kazuya ICHIMURA, Sotaro YAMASHITA, Yousuke NAKASHIMA, Masakatsu FUKUMOTO, Mamoru SHOJI, Mizuki SAKAMOTO, Naomichi EZUMI, **Md. Shahinul ISLAM**, Akihiro TERAKADO, Kunpei NOJIRI, Tsubasa YOSHIMOTO, Toshiki HARA and Hiromasa TAKENO, "Analysis on the Sensitivity of the ASDEX Type Ionization Gauge in Mixed Radiator Gases of Divertor Simulators", **Plasma and Fusion Research**, Vol. **14**, pp- 2405029 (2019).
20. **Md Shahinul Islam**, Yousuke Nakashima, Akiyoshi Hatayama, Kazuya Ichimura, Takaaki Iijima, Md Maidul Islam, Takayuki Yokodo, Guanyi Lee, Tsubasa Yoshimoto, Sotaro Yamashita, Naomichi Ezumi, Mizuki Sakamoto, "Investigation of E-Divertor Plasma during Simultaneous Injection of Hydrogen and Impurity Gases into GAMMA 10/PDX by Using the LINDA Code", **Plasma and Fusion Research**, Vol. **13**, pp-3403080 (2018).
21. Takayuki Yokodo, Yousuke Nakashima, Akiyoshi Hatayama, Takaaki Iijima, **Md Shahinul Islam**, Tsubasa Yoshimoto, Kazuya Ichimura, Md Maidul Islam, Guanyi Lee, Sotaro Yamashita, Akihiro Terakado, Kunpei Nojiri, Masayuki Yoshikawa, Junko Kohagura, Naomichi Ezumi, Mizuki Sakamoto, Tsuyoshi Imai, "Impact of the Upstream Plasma Parameters on Spectroscopic Measurement in the GAMMA 10/PDX Diveror Simulation Experiments", **Plasma and Fusion Research**, Vol. **13**, pp-3402032 (2018).
22. Kazuya Ichimura, Sotaro Yamashita, Yousuke Nakashima, Masakatsu Fukumoto, Mamoru Shoji, Mizuki Sakamoto, Naomichi Ezumi, Md Maidul Islam, **Md Shahinul Islam**, Takayuki Yokodo, Guanyi Lee, Akihiro Terakado, Kunpei Nojiri, Tsubasa Yoshimoto, Hiromasa Takeno, "Gas Pressure Measurements in Pure and Mixed Gases at Around 1.0 Pa by Using ASDEX Type Fast Ionization Gauge", **Plasma and Fusion Research**, Vol. **13**, pp-3405029 (2018).
23. **M.S. Islam**, Y. Nakashima, R. Tatsumi, A. Hatayama, M. M. Islam and T. Iijima, "Numerical simulation study towards plasma detachment in the end cell of GAMMA 10/PDX by a coupled fluid-neutral code", **Contributions to Plasma Physics**, Vol. **58,** pp-805 (2018).
24. **M.S. Islam**, Y. Nakashima and A. Hatayama, "Investigation of plasmas behavior during noble gas injection in the end-cell of GAMMA 10/PDX by using the multi-fluid code LINDA", **Plasma Physics and Controlled Fusion**, Vol. **59**, pp-125010 (2017).
25. **M.S. Islam**, Y. Nakashima, A. Hatayama, K. Ichimura, M. M. Islam, K. Fukui, M. Ohuchi, T. Yokodo, G. Lee, S. Togo, N. Ezumi, M. Sakamoto and T. Imai, "Numerical simulation of detached plasma in the end-cell of GAMMA 10/PDX for divertor simulation study", **Fusion Engineering and Design**, Vol. **125**, pp-216-221 (2017).
26. Y. Nakashima, K. Ichimura, **M.S. Islam**, M. Sakamoto, N. Ezumi, M. Hirata, M. Ichimura, R. Ikezoe, T. Imai, T. Kariya, I. Katanuma, J. Kohagura, R. Minami, T. Numakura, M. Yoshikawa, T. Iijima, M. M. Islam, K. Nojiri, K. Shimizu, A. Terakado, S. Togo, N. Asakura, M. Fukumoto, A. Hatayama, Y. Hirooka, S. Kado, H. Kubo, S. Masuzaki, H. Matsuura, T. Nakano, S. Nagata, N. Nishino, N. Ohno, A. Sagara, S. Sawada, M. Shoji, A. Tonegawa and Y. Ueda, "Recent progress of divertor simulation research using the GAMMA 10/PDX tandem Mirror", **Nuclear Fusion**, Vol. **57**, pp-116033 (2017).
27. K. Ichimura, M. Fukumoto, M. M. Islam, **M.S. Islam**, K. Shimizu, K. Fukui, M. Ohuchi, K. Nojiri, A. Terakado, M. Yoshikawa, N. Ezumi, M. Sakamoto, and Y. Nakashima, "Measurement of neutral gas pressure in the D-module of GAMMA 10/PDX by using ASDEX type fast ionization gauge", **Review of Scientific Instruments**, Vol. **87**, pp-11D424 (2016).
28. H. Takeda, Y. Nakashima, A. Hatayama, **M.S. Islam**, K. Ichimura, M. M. Islam, K. Shimizu, K. Fukui, M. Sakamoto and T. Imai, "Numerical Simulation Study of Plasma Flow in the GAMMA10/PDX End-cell Using a Fluid Code", **Contributions to Plasma Physics**, Vol. **56**, pp-784-789 (2016).
29. **Md Shahinul Islam**, Yousuke Nakashima, Hiroto Matsuura, Kazuya Ichimura, Md Maidul Islam, Keita Shimizu, Kazuma Fukui, Masato Ohuchi, Kunpei Nojiri, Akihiro Terakado, Naomichi Ezumi, Mizuki Sakamoto, Tsuyoshi Imai, "Study of Heat and Particle Flux in the Case of Gas Injection in the D-Module of GAMMA10/PDX", **Plasma and Fusion Research**, Vol. **11**, pp-2402042 (2016).
30. Kazuya Ichimura, Yousuke Nakashima, Md. Maidul Islam, **Md. Shahinul Islam**, Keita Shimizu Kazuma Fukui, Masato Ohuchi, Mafumi Hirata, Ryuya Ikezoe, Shuhei Sumida, Masayuki

YOoshikawa, Naomichi Ezumi, Mizuki Sakamoto, Makoto Ichimura and Tsuyoshi Imai, **"**Study of the Axial Ion Confinement Time for High Particle Flux Operations of GAMMA 10/PDX**"**, **Plasma and Fusion Research**, Vol. **11**, 2405045 (2016).

31. Md Maidul Islam, Yousuke Nakashima, Shinji Kobayashi, Nobuhiro Nishino, Yuichiro Nakano, Katsuhiro Hosoi, Kazuya Ichimura, **Md Shahinul Islam**, Keita Shimizu, Kazuma Fukui, Masato Ohuchi, Akihiro Terakado, Masayuki Yoshikawa, Junko Kohagura, Mafumi Hirata, Ryuya Ikezoe, Xiaolong Wang, Makoto Ichimura, Mizuki Sakamoto, Tsuyoshi Imai, "Effect of Laval Nozzle in the GAMMA 10 SMBI Experiments", **Plasma and Fusion Research**, Vol. **11**, pp-2402053 (2016).

Conference proceedings: 9 (as of 11/21/2023)

1. **M.S. Islam**, J.D. Lore, S. Smolentsev, C.E Kessel, and R. Maingi, "ANALYSIS AND DESIGN OF FAST FLOW LIQUID LI DIVERTOR FOR FUSION NUCLEAR SCIENCE FACILITY (FNSF) USING SOLPS-ITER", Proceedings of the 29th IAEA-Fusion Energy Conference **(FEC2023)**.
2. R. Maingi, D. Andruczyk, D. Curreli, E. Emdee, R.J. Goldston, **M.S. Islam**, C.E. Kessel, A. Khodak, E. Kolemen , J.D. Lore, D. O'Dea, B.A. Pint, R. Rizkallah, M. Romedenne, F. Saenz, S. Smolentsev, Z. Sun, B. Wynne, "Progress in a US-based Liquid Metal Plasma-Facing Component Design Activity for a Fusion Nuclear Science Facility", Proceedings of the 29th IAEA-Fusion Energy Conference **(FEC2023)**.
3. **M.S. Islam**, Y. Nakashima, S. Ishiguro, A. Hatayama, K. Hoshino, N. Ezumi, and M. Sakamoto, "Simulation of plasma and neutral particles during H gas puffing in the divertor region of GAMMA 10/PDX using the fluid and kinetic neutral code", Proceedings of the 28th IAEA-Fusion Energy Conference **(FEC2020)**, 2020.
4. **M.S. Islam**, Y. Nakashima, R. Tatsumi, A. Hatayama, K. Ichimura, M. M. Islam, K. Shimizu, K. Fukui, M. Ohuchi, T. Yokodo, G. Lee, N. Ezumi, M. Sakamoto, and T. Imai, "Study of Plasma Behavior During Impurity Injection in the End-cell of GAMMA10/PDX by Fluid Code", **AIP Conf. Proceedings, 1771**, 060015 (2016).
5. M. Ohuchi, Y. Nakashima, H. Matsuura, K. Ichimura, **M.S. Islam**, M. M. Islam, K. Fukui, T. Yokodo, G. Lee, N. Ezumi, M. Sakamoto, K. Tsumura, R. Minami, T. Kariya, and T. Imai, "Evaluation of heat flux from the plasma flow by using calorimeter in the GAMMA 10/PDX end-cell", **AIP Conf. Proceedings**, **1771**, 050011 (2016).
6. M. M. Islam, Y. Nakashima, S. Kobayashi, N. Nishino, K. Hosoi, K. Ichimura, **M.S. Islam**, K. Fukui, K. Shimizu, M. Ohuchi, M. Arai, T. Yokodo, G. Lee, M. Yoshikawa, J. Kohagura, M. Hirata, R. Ikezoe, M. Ichimura, M. Sakamoto, and T. Imai, "Characteristics of SMBI Fueling with Laval Nozzle in GAMMA 10 Based on Experimental and Simulation Results", **AIP Conf. Proceedings**, Vol. **1771**, pp-030018 (2016).
7. K. Fukui, Y. Nakashima, S. Nagata, K. Ichimura, M. M. Islam, **M.S. Islam**, K. Shimizu, M. Ohuchi, et al. "Study of beam-material interaction by using hydrogen ion beam", **AIP Conf. Proceedings**, Vol. 1**771**, pp-060011 (2016).
8. T. Yokodo, Y. Nakashima, K. Shimizu, K. Ichimura, M. M. Islam, **M.S Islam**, K. Fukui, M. Ohuchi, A Terakado, K Nojiri, M Yoshikawa, N Ezumi, M Sakamoto, T Imai., "Study of the impurity transport by injecting the gas to D-module in GAMMA 10/PDX", **AIP Conf. Proceedings**, Vol. **1771**, pp- 040007 (2016).
9. M. M. Islam, Y. Nakashima, S. Kobayashi, N. Nishino, K. Ichimura, T. Iijima, **M.S. Islam**, T. Yokodo, G. Lee, T. Yoshimoto, S. Yamashita, M. Yoshikawa, J. Kohagura, M. Hirata, R. Minami, T. Kariya, R. Ikezoe, M. Ichimura, M. Sakamoto, T. Imai, "Study of Plasma Behavior during ECRH Injection in the GAMMA 10 SMBI Experiments", **Journal of Physics: Conference Series, 959,** 012007 (2018).

Presentations at the International Conferences, Workshops: 21

1. **M.S. Islam**, J.D. Lore, S. Smolentsev, C.E Kessel, and R. Maingi, "ANALYSIS AND DESIGN OF FAST FLOW LIQUID LI DIVERTOR FOR FUSION NUCLEAR SCIENCE FACILITY (FNSF) USING SOLPS-ITER", Proceedings of the 29th IAEA-Fusion Energy Conference **(FEC2023)**, October 16-21, 2023, London, UK (**Poster**: IAEA-CN-TH/P5-1592)
2. **M.S. Islam**, et al., "Evaluation of scenarios for Proto-MPEX target fluxes using auxiliary heating and gas puffing actuators", The 30th IEEE Symposium on Fusion Engineering (**SOFE2023**), July 9-13, 2023, Oxford, UK (**Poster**: BP369)
3. **M.S. Islam**, et al., "Modelling of Fast Flow Liquid Lithium Divertor for a Fusion Nuclear Science Facility (FNSF) using SOLPS-ITER", the 7th INTERNATIONAL SYMPOSIUM ON LIQUID METALS APPLICATIONS FOR FUSION, 12-16 December 2022, Kasugai, Japan (**Oral**: 6-2)
4. **M.S. Islam**, et al., "SOLPS-ITER modelling of Liquid Lithium Divertor for a Fusion Nuclear Science Facility (FNSF)", the 64th Annual Meeting of the APS Division of Plasma Physics, October 17–21, 2022; Spokane, Washington (**Poster**: BP11.00066)
5. **M.S. Islam**, et al., "Divertor geometry modeling with the SOLPS- ITER code for reactor concepts with liquid metal divertors", the 25th International Conference on Plasma Surface Interaction in Controlled Fusion Devices (**PSI-25**), Jeju, Korea, 13th June to June 17th, 2022 (**Poster**: P222(F))
6. **M.S. Islam et al**., "Plasma response modeling with SOLPS-ITER for liquid metal PFCs in Fusion Nuclear Science Facility (FNSF)", The 2nd US-Japan Workshop on "Power and particle control in a steady state magnetic fusion DEMO reactor by liquid metal PFCs", March 8-12, 2022, Kasugai, Japan (**Oral: US-13**)
7. **M.S. Islam et al**., "Impact of Neutral Gas Puffin g on the Divertor Power Exhaust and Particle Control in GAMMA 10/PDX by the LINDA-KNMC Code", The 18th international workshop on Plasma Edge Theory (**PET-18**) in fusion devices, Sep 13-15, 2021, Switzerland. (**Poster No: P1-10**)
8. **M.S. Islam**, et al., "Simulation of plasma and neutral particles during H gas puffing in the divertor region of GAMMA 10/PDX using the fluid and kinetic neutral code", the 28th IAEA-FEC conference **(FEC2020)**, 10-15 May 2021, France. (**Poster: TH/P4-5**)
9. **M.S. Islam** et al., "Study of energy loss processes during H gas puffing by the PIC simulation", The 24th International Conference on Plasma Surface Interactions in Controlled Fusion Devices (**PSI-24**), January 10-15, 2021, Jeju, Korea. (**Poster: TP2/079**)
10. **M.S. Islam**, et al., "Numerical simulation study of the magnetic field structure and gas puffing on the divertor plasma by the LINDA code", The 29th International Toki Conference on Plasma and Fusion Research (**ITC29**), 27-30 October 2020, Toki, Japan. (**Poster: 1-F2-1**)
11. **M.S. Islam**, et al., "Study of the Transient Behaviour of Detached Plasma during Xe Gas Injection into the D-module of GAMMA 10/PDX", The 28th International Toki Conference on Plasma and Fusion Research (**ITC28**), 5-8 NOV 2019, Toki, Japan. (**Oral: O1-3**)
12. **M.S. Islam**, et al., "Study of End-loss Plasma of GAMMA 10/PDX toward the plasma detachment by using the Multi-Fluid Code "LINDA", the 17th international workshop on Plasma Edge Theory (**PET-17**) in fusion devices, 19-21 August, UCSD, La Jolla, California, USA. (**Poster: PII.14**)
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