Stanford

Saptarshi Biswas

Postdoctoral Scholar, Mechanical Engineering

Bio

STANFORD ADVISORS

- Mark Cappelli, Postdoctoral Faculty Sponsor

Publications

PUBLICATIONS

- **17.8-GHz microwave electrothermal thruster for CubeSat and small-satellite propulsion using molecular propellants** *JOURNAL OF ELECTRIC PROPULSION*
  Biswas, S., Bilén, S. G.
  2026; 5 (1)
- **Plasma-buoyancy dynamics in microwave electrothermal thrusters: experimental insights** *JOURNAL OF ELECTRIC PROPULSION*
  Biswas, S., Bilen, S. G.
  2026; 5 (1)
- **Hall thruster krypton sputtering and deposition for vacuum facility materials** *JOURNAL OF ELECTRIC PROPULSION*
  Cowan, R. W., Biswas, S., Franz, L. K., Cretel, C. M., Obenchain, R. A., Wirz, R. E.
  2025; 4 (1)
- **Analysis of Mixed Convective Heat Transfer in a Ribbed Channel Using the Lattice Boltzmann Method** *NUMERICAL HEAT TRANSFER PART A-APPLICATIONS*
  Biswas, S., Sharma, P., Mondal, B., Biswas, G.
  2015; 68 (1): 75-98

PRESENTATIONS

- Interstitial and plasma-facing sheath dynamics for volumetrically complex materials - APS Division of Plasma Physics Meeting Abstracts (November 17, 2025)
- Facility Effects Due to Earth's Local Gravity on a Microwave Electrothermal Thruster (MET) - International Electric Propulsion Conference (IEPC) (June 24, 2024)
- Hall thruster ion-induced sputtering of facility surfaces: Review of PMI data - International Electric Propulsion Conference (IEPC) (June 25, 2024)
- Hall thruster krypton sputtering effects on vacuum facility materials - International Electric Propulsion Conference (IEPC) (June 25, 2024)
- Thrust measurements of a 17.8-GHz ammonia microwave electrothermal thruster for small satellites - International Electric Propulsion Conference (IEPC) (June 20, 2022)
- 30-GHz Proof-of-Concept Microwave Electrothermal Thruster - International Electric Propulsion Conference (IEPC) (June 20, 2022)
- A 17.8-GHz Ammonia Microwave Electrothermal Thruster for CubeSats and Small Satellites - International Electric Propulsion Conference (IEPC) (September 16, 2019)
- Use of Ammonia as a Propellant in a 17.8-GHz Microwave Electrothermal Thruster - International Electric Propulsion Conference (IEPC) (October 10, 2017)