

Stéphane MAZOUFFRE

CNRS Director of Research

Institute for Combustion, Aerothermodynamics, Reactivity and Environment, CNRS

Advisory Director of the ICARE lab

Head of the ICARE Electric Propulsion team

Director of ORACLE, ICARE – Exotrail joint-laboratory 2019 – 2022

French, born 3rd of February 1973

Qualification

- 2009** Thesis director certification (*Habilitation*), University of Orléans, France
- 2003** CNRS staff research scientist at ICARE in the field of spacecraft electric propulsion
- 2001-2003** Postdoctoral fellow at ICARE – Research fields: Rarefied supersonic plasma jets
- 2001** Ph.D. degree in plasma physics (summa cum laude) from the Eindhoven University of Technology, The Netherlands.
- 1996** M.Sc. degree from a French higher engineering school (ENSIL), University of Limoges, in materials science and surface treatments

Expertise and Relevant experience

Expertise: low-temperature plasma physics, electric propulsion, laser-aided diagnostics

Programs: CNES, ANR, ESA, EU, SAFRAN, Airbus, Enpulsion, Exotrail, GAMA...

Collaborations with foreign Universities: Madrid, Princeton, Prague, Daejeon, Tokyo

Executive committee of the French Physical Society and of the FPS Plasma Division (2006-2012)

Coordinator of the low-temperature plasma network of the CNRS (2012-2014)

PR manager of the ICARE laboratory (2002 – 2008).

Board of directors of the Electric Rocket Propulsion Society

Chairman of the IEPC 2024

Editorial Board: *Plasma Sources Science and Technology* (2012-18), *Aerospace*, *Frontiers*

Associate editor: *Journal of Electric Propulsion*

CNRS Ambassador of innovation, Applied physics section

Supervision of 17 PhD students and 9 post-doctoral fellows

Supervision of 34 graduate students and 41 undergraduate students

Space propulsion Teaching: Orléans University (Space Sciences Master), IPSA (Paris), EPF (Paris)

Scientific production

116 papers in peer reviewed international journals (+ 12 book chapters)

155 conference proceedings

48 articles in a general-public magazines and newspapers

81 International symposia (27 invited talks)

Recognitions

2021: Edmond Brun prize, French Academy of Sciences

2020: Chairs of Excellence, University Carlos III, Madrid, Spain

2019 & 2009: IEPC Best paper award from the Electric Rocket Propulsion Society

2012: Noah Hershkowitz Award of the Institute of Physics (IOP)

2008: Bronze medal of the CNRS

Relevant publications

Supervised machine learning-based Hall thruster scaling

A. Marianacci, S. Mazouffre, J. Electric Propulsion 3 14 (2024).

Enhanced electron heating in the magnetic nozzle of a radio-frequency plasma via electron cyclotron resonance

A. Vinci, S. Mazouffre, Eur. Phys. Lett. **141** 44002 (2023).

Electric propulsion for satellites and spacecraft: established technologies and novel approaches

S. Mazouffre, Plasma Sources Sci. Technol. [Topical Review] 25, 033002 (2016).