

Stéphane MAZOUFFRE

CNRS Director of Research

Institute for Combustion, Aerothermodynamics, Reactivity and Environment
ICARE, CNRS, UPR 3021

Head of the ICARE Electric Propulsion team

Director of ORACLE, ICARE - Exotrail joint-laboratory

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 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

Research on EP with CNES, ANR, ESA, EU, USAF, SAFRAN, Airbus, Enpulsion, Exotrail
Collaborations with foreign Universities: Princeton, Michigan, Prague, Singapore (NTU)

Member of the executive committee of the French Physical Society (SFP) and of the Plasma Division of the SFP (2006 – 2012)

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

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

AIAA senior member; Member of the AIAA EP technical committee

Member of board of directors of the Electric Rocket Propulsion Society

Member of the executive committee of the CNES CCT Propulsion & Aerothermodynamics

Member of the ESA program Harmonisation in EP

Member of the Editorial Board of *Plasma Sources Science and Technology* and *Aerospace*

Supervision of 12 PhD students and 9 post-doctoral fellows

Supervision of 24 graduate students and 31 undergraduate students

Teaching: Orléans University, IPSA

Scientific production

90 papers in peer reviewed international journals (+ 10 book chapters),

118 conference proceedings,

37 articles in a general-public magazines and newspapers.

61 International symposia (13 invited talks)

Recognitions

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

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

2008: Bronze medal of the CNRS

Relevant publications

Rotating spoke instabilities in a wall-less Hall thruster: Experiments

S. Mazouffre, L. Grimaud, S. Tsikata, K. Matyash, R. Schneider, *Plasma Sources Sci. Technol.* 28, 054002 (2019).

Characteristics and Performances of a 100 W Hall Thruster for Microspacecraft

S. Mazouffre, L. Grimaud, *IEEE Trans. Plasma Sci.* 46, pp. 330-337 (2018).

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

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