

# Stéphane MAZOUFFRE

## CNRS Director of Research

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

## Head of the Electric Propulsion team

French, born 3<sup>rd</sup> 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 22 graduate students and 29 undergraduate students

Teaching: Orléans University, IPSA

## Scientific production

87 papers in peer reviewed international journals (+ 9 book chapters),

118 conference proceedings,

32 articles in a general-public magazines and newspapers.

59 International symposia (12 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

*Characteristics and Performances of a 100 W Hall Thruster for Microspacecraft*

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

*The 2017 Plasma Roadmap: Low temperature plasma science and technology – Aerospace applications: propulsion and flow control*

S. Mazouffre, E. Moreau, J. Phys. D: Appl. Phys. **50**, 323001 pp. 28-29 (2017).

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

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