

Gianluca De Masi

Researcher in plasma physics and technology

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Research Fields

- Diagnostic systems for fusion plasma: microwave reflectometry, electric probes;
- Cold atmospheric plasma (CAP) sources development;
- Biomedical applications of CAP.

Biosketch

Gianluca De Masi has graduated in Physics in 2006 and has received the International Ph.D. on “Fusion Science and Engineering” in 2011. He has been working for Consorzio RFX since 2011. During his experience in the field of magnetically confined fusion plasmas, he first worked on reciprocating electric probes and, then, he has participated in the development of the reflectometric system for the RFXmod fusion device. In this field he has been collaborating with different international research groups, spending almost one year (in different visits) at the JET laboratory in Culham (UK) and the IPP laboratory in Garching (Germany).

In 2015, he started working in the field of the development of Cold Atmospheric Plasma (CAP) source for biomedical applications and, since 2017, he is the Principal Investigator of a research project in collaboration with the University of Padova and Catanzaro for the development of a plasma device for an accelerated haemostasis.

Main publications

- C. Gareri, L. Bennardo and **G. De Masi**, Use of a new cold plasma tool for psoriasis treatment: A case report. *SAGE Open Medical Case Reports*, 8: 2050313X20922709 (2020).
- **G. De Masi** et al., Plasma Coagulation Controller: A Low-Power Atmospheric Plasma Source for Accelerated Blood Coagulation. *Plasma Medicine*, 8(3):245–254 (2018).
- G. Marchiori, **G. De Masi**, R. Cavazzana et al., Study of a plasma boundary reconstruction method based on reflectometric measurements for control purposes. *IEEE Transactions on Plasma Science* 46 (5), 1285-1290 (2018).
- **G. De Masi**, I. Predebon, S. Spagnolo et al., Density and magnetic fluctuations in type III-ELM pedestal evolution in JET: experimental and numerical characterization, *Nuclear Fusion* 58 (4), 046007 (2018)
- **G. De Masi**, E. Martines, M. Spolaore, N. Vianello, R. Cavazzana et al., Electrostatic properties and active magnetic topology modification in the RFX-mod edge plasma, *Nuclear Fusion* 53 (8), 083026 (2013)