



Julien HILLAIRET



Radio-Frequency Engineer and Plasma Physicist

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👤 Scholar Profile: <https://scholar.google.com/citations?user=iSJel68AAAAJ&hl=en>

Career Summary

- Working at CEA since 2008.
- Expert on tokamak Radio-Frequency Heating and Current Drive systems.
- Experienced on high-power Radio-Frequency system design and manufacturing, including mechanical and thermal aspects.
- RF antenna/plasma coupling modelling (open-source coupling code ALOHA developer).
- High-power RF system design capabilities gained within fusion associations based in Europe, China, US, India and Korea.
- Supervisor of PhD students on LHCD coupling, LHCD and ICRH antenna design for fusion reactor, high RF power multipactor effects, material and tribology aspects for RF contacts for ITER.
- Lecturer in High Power RF technologies for the French and European Fusion Masters and the ASEAN School on Plasma and Nuclear Fusion.
- Lecturer in Python programming at CEA.
- Author of a chapter on LHCD technologies in IAEA book "Fundamentals of Magnetic Fusion Technology".

Main 5 Relevant 1st Author Published Papers

- Radiofrequency and mechanical tests of silver coated CuCrZr contacts for the ITER ion cyclotron antenna, J.Hillairet et al., Fusion Eng. Des. 129 (2018) 29–39.
- R&D activities on RF contacts for the ITER ion cyclotron resonance heating launcher, J.Hillairet et al., Fusion Engineering and Design (2015), pp. 477-481.
- Design and tests of 500 kW RF windows for the ITER LHCD system, J.Hillairet et al., Fusion Engineering and Design (2015), Volume 94, pp. 22–30.
- Recent progress on lower hybrid current drive and implications for ITER, J.Hillairet et al., Nucl. Fusion 53 (2013) 073004.
- ALOHA: an Advanced LOwer Hybrid Antenna coupling code, J.Hillairet et al., Nuclear Fusion, Volume 50, Number 12, 125010 (17pp), 2010.

Citations Statistics (2008 - 2019)

Total Number of publications: 520

Total cumulated citations: 1888

h-index: 26