

Ph.D. Thesis Project

Contrato de formación de personal investigador
July 2024, CIEMAT (Madrid)

Turbulence in the Wendelstein 7-X stellarator: experiments for model validation




*The Wendelstein 7-X stellarator.
Planar and non-planar coils.
doi:10.1088/1757-899X/171/1/012050.*

Magnetic confinement fusion holds the promise of a clean, unlimited source of energy for the mankind. In the coming years, very exciting developments will take place in the quest to approach thermonuclear fusion conditions in the two main magnetic confinement concepts, the tokamak and the stellarator.


In this Ph.D. project you will conduct research with experimental data from the W7-X stellarator¹ to try to understand the physics of plasma turbulence and its impact on a future reactor performance. You will be working in an international environment to develop cutting-edge instruments, analyze results with machine learning tools and use them to validate current theoretical models and predictive codes.

Applications in July 2024. If you are interested, please, contact:

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¹[The bizarre reactor that might save nuclear fusion, Science 2015, doi:10.1126/science.aad4746](https://doi.org/10.1126/science.aad4746)