Special Issue

Structural and Thermo-Mechanical Analyses in Nuclear Fusion Reactors

Message from the Guest Editors

Dear colleagues,

Nuclear fusion is one of the most attractive technologies for the achievement of electricity production in a safe, sustainable and renewable way, while maintaining a carbon-free approach. On the other hand, the design of a nuclear fusion reactor represents a very challenging activity due to the very demanding operational conditions and the number of cutting-edge technologies to be employed in these kind of reactors. Thus, the proper design of the different systems constituting a nuclear fusion reactor is fundamental for the achievement of this challenging goal.

The scope of the present Special Issue is, therefore, to collect submissions reporting the state of the art of R&D activity on nuclear fusion reactors, investigating the main issues related to the structural and thermo-mechanical design, as well as to look for advanced and innovative methods for the design of reactor components. It is our great pleasure to invite you to submit a manuscript for this Special Issue.

Keywords:
nuclear fusion reactors
structural analysis
pipe stress analysis
thermo-mechanics
finite element method
nuclear design

Guest Editors

Dr. Pietro ARENA

Italian National Agency for New Technologies, Energy and Sustainable Economic Development, ENEA FSN-ING-SIS, C.R. Brasimone, 40032 Camugnano, BO, Italy

Prof. Dr. Pietro Alessandro Di Maio

Department of Engineering, University of Palermo, 90128 Palermo, Italy

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Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
applsci@mdpi.com

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

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