Contact

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Languages

Spanish (Native)
English (B2)

Certificates

English Level B2

Scientific production

About the impact of the Unresolved Resonance Region in Monte Carlo simulations of Sodium Fast Reactors, International Congress on Advances in Nuclear Power Plants - ICAPP · 2019 (Conference paper) · Main author

Evaluation of the ESFR end of cycle state and detailed analysis of spatial distributions of reactivity coefficients, PHYSOR 2020 (Conference paper)

Diagnosis of the unresolved domain treatment in Monte Carlo transport calculations through the identification and modelling of criticality safety experiments, PHYSOR 2020 (Conference paper)

Use of similarity indexes to identify spatial correlations of sodium void reactivity coefficients, 2020 (Journal paper) · Nuclear Engineering and Technology
https://doi.org/10.1016/j.net.2020.04.021

Antonio Jiménez Carrascosa

PhD student at Universidad Politécnica de Madrid, Madrid, Spain

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Research Experience

Universidad Politécnica de Madrid, Spain

Junior Researcher
July 2018 – present
Department of Energy Engineering
Grant "Federico Goded" from Nuclear Safety Council (CSN) and UPM

Participation on the European Horizon 2020 ESFR-SMART Project. Tasks related to neutronics analysis, sensitivity and uncertainty quantification and assessment of simulation tools.

Paul Sherrer Institut, Switzerland

PhD stay
November 2019 – February 2020
Advanced Nuclear Systems Group

Development of a Machine Learning-based methodology for improving transient simulations of Sodium Fast Reactors.

Education

Universidad Politécnica de Madrid

PhD student, Nuclear Science and Technology · (2018 - ongoing)

Tentative topic: "*Sensitivity and uncertainty analysis of spatial-dependent voiding and Doppler to nuclear data in Sodium Fast Reactors*"

Escuela Técnica Superior de Ingenieros Industriales - UPM

Universidad Politécnica de Madrid

MSc in Nuclear Science and Technology · (2016 - 2018)

MSc Thesis: "*Assessment of SCALE capabilities for Monte Carlo burnup calculations of Sodium Fast Reactors*" · DOI: 10.5281/zenodo.1691213

Escuela Técnica Superior de Ingenieros Industriales - UPM

Universidad de Málaga

BSc in Energy Engineering · (2011 - 2016)

Escuela Técnica Superior de Ingenieros Industriales – UMA

Universidad de Málaga fellowship to BSc students research introduction (2016)

Specialist and technical training

Deterministic modelling of nuclear systems. 25h · (2019)
Chalmers University Technology, Gothenburg, Sweden

Modeling and Numerical Methods for Uncertainty Quantification. 27h · (2019)
French-German Summer School / Ecole Thématique CNRS, Porquerolles Island, France

Workshop on Liquid Metal Thermal hydraulics and Fuel Safety. 22h · (2019)
CIEMAT & UPM, Madrid, Spain

The Fréderic Joliot / Otto Hahn Summer School in "Maximizing the Benefits of Experiments for the Simulation, Design and Analysis of Reactors. 42h · (2018)
CEA & KIT, Aix-en-Provence, France

Workshop on Sodium facilities, design and safe operation. 15h · (2018)
ENEA, Rome, Italy

Radioactive Waste Management. 45h · (2017)
CIEMAT & UPM, Madrid, Spain

Understanding Nuclear Energy – online learning initiative of Delft University of Technology · (2016)

Professional Development

Directing BSc and MSc Thesis. 4h · (2019)
Universidad Politécnica de Madrid, Madrid, Spain

Workshop tutorial on oral presentations. 4h · (2019)
Universidad Politécnica de Madrid, Madrid, Spain

Introduction to Python programming language. 8h · (2018)
Universidad Politécnica de Madrid, Madrid, Spain

Workshop on research-article writing. 12h · (2018)
Universidad Politécnica de Madrid, Madrid, Spain

Computer skills

OS	Linux (OpenSuse), Windows
Programming	Python, MATLAB
Reactor physics	SCALE Code System, Serpent
Others	AutoCAD, LATEX, Engineering Equation Solver (EES)

Additional information

Participation as technical reviewer for two international conferences:

- ICONE27 (2019): Student track
- IYNC (2020): Neutronics and reactor physics track

Technical Committee Co-Manager – European Nuclear Young Generation Forum 2021 (Tarragona, Spain),