Curriculum Vitae



Personal information

First name(s) / Surname(s) Mariano Tarantino

Address(es) [redacted]

E-mail mariano.tarantino@enea.it

Nationality Italian

[redacted]

Gender Male

Occupational field

Innovative Technologies Researcher

Work experience

Dates From April 2024

Occupation or position held Head of Nuclear Energy Systems Division by the Nuclear Department, ENEA

Main activities and responsibilities Responsible for the research activities carried out at ENEA Bologna Research Centre by the Division of Nuclear Energy Systems Division.
The main activities regards the design and analysis of innovative nuclear systems, with particular reference to lead-cooled fast reactors (Gen-IV LFR,) and modular small/medium-sized reactors (SMR).
Coordinate activities related to the closure of the nuclear fuel cycle, safety analysis, severe accident management, model development, verification and validation of numerical models, safety assessment of fission and fusion reactors.
Coordination and Project Management in nuclear components and systems design, development and experimental characterization.
Member of the Executive Board of FALCON Consortium (Fostering ALfred CONstruction).
Responsible of ALFRED DEMO-LFR RD&Q task force in FALCON.
Member of the Steering Committee of EAGLES Consortium and responsible of the R&D&Q Project Agreement in the frame of the Consortium.
Responsible of the agreement between ENEA and newcleo for the LFR-AS-30 and LFR-AS-200 development and Project Director of the R&D in the frame of the agreement.
Responsible for the design and construction of RH test Facility in CeSMA (Naples) for the DTT facility.
Responsible for the implementation and Operation of the Automation and Control Laboratory (A&C Lab) in the frame of EXADRONE Project, funded by the Regione Emilia Romagna (RER).

Name and address of employer Italian National agency for new technologies, Energy and sustainable economic development – ENEA Bologna Research Centre

Type of business or sector Research and technology development in the field of Innovative Nuclear System (SMR & Gen-IV LFR), Innovative Technologies, Prototypes. .

Dates From July 2022 to April 2024

Occupation or position held Head of Nuclear Safety and Sustainability Division by the Fusion and Technology for Nuclear Safety and Security Department, ENEA

Main activities and responsibilities	Responsible for the research activities carried out at ENEA Bologna Research Centre by the Division for Nuclear Safety and Sustainability: The main activities are regard design an analysis of innovative systems, with particular reference to advanced lead-cooled generation IV nuclear reactors (LFR) and modular small/medium-sized reactors (SMR), closing of the fuel cycle, analysis of accidents and ensuring preparedness for nuclear and radiological emergencies, characterization and traceability of isotopes, relative to the national disposal facility and environmental monitoring, nuclear security, forensic and mitigation of chemical, biological, radiological and nuclear risks (CBRN), safety assessment of fusion reactors, with particular focus on DTT facility presently under construction. Coordination and Project Management in nuclear components and systems design, development and experimental characterization. Member of the Executive Board of FALCON Consortium (Fostering ALfred CONstruction). Responsible of ALFRED DEMO-LFR RD&Q task force in FALCON. Responsible for the implementation and Operation of the Automation and Control Laboratory (A&C Lab) in the frame of EXADRONE Project, funded by the Regione Emilia Romagna (RER). Responsible for the implantation of CBRN task by the A&C Lab.
Name and address of employer	Italian National agency for new technologies, Energy and sustainable economic development – ENEA Bologna Research Centre
Type of business or sector	Research and technology development in the field of Innovative Nuclear System (Fusion & Gen-IV Fission), Innovative Technologies, Prototypical Instrumentations, CBRN, DRONE.
Dates	From January 2020 to July 2022
Occupation or position held	Head of Innovative Projects Section by the Fusion and Technology for Nuclear Safety and Security Department, ENEA
Main activities and responsibilities	Responsible for the research activities carried out at ENEA Brasimone Research Centre by the Innovative Projects Section, aiming at supporting innovative nuclear systems development, including Gen-IV Led-cooled Fast Reactors, Accelerator Driven Systems cooled by heavy liquid metal, ITER, DEMO (EUROFUSION), DTT. Coordination and Project Management in nuclear components and systems design, development and experimental characterization. Member of the Executive Board of FALCON Consortium (Fostering ALfred CONstruction). Responsible of ALFRED DEMO-LFR RD&Q task force in FALCON. Responsible for the implementation and Operation of the Automation and Control Laboratory (A&C Lab) in the frame of EXADRONE Project, funded by the Regione Emilia Romagna (RER). Responsible for the implantation of CBRN task by the A&C Lab.
Name and address of employer	Italian National agency for new technologies, Energy and sustainable economic development – ENEA Brasimone Research Centre
Type of business or sector	Research and technology development in the field of Innovative Nuclear System (Fusion & Gen-IV Fission), Innovative Technologies, Prototypical Instrumentations, CBRN, DRONE.
Dates	From July 2015 to December 2019
Occupation or position held	Head of Experimental Engineering Division of Brasimone by the Fusion and Technology for Nuclear Safety and Security Department, ENEA
Main activities and responsibilities	Responsible for the research activities carried out at ENEA Brasimone Research Centre by the Experimental Engineering Division, aiming at supporting innovative nuclear systems development, including ITER, DEMO (EUROFUSION), DTT, ALFRED (DEMO-LFR, GEN-IV). Coordination and Project Management in nuclear components and systems design, development and experimental characterization. Scientific Advisor in Prototypical instrumentations development for thermal-fluid dynamic systems. Responsible for experimental facilities design and operation both in the frame of nuclear fission (ADS and LFR-GEN-IV) and nuclear fusion (ITER, DEMO, IFMIF, DONES, DTT). Coordination and Project Management in experimental campaign conceptualization, implementation and results analysis. Participation as Project Coordinator (SESAME), Work Package Leader (MAXSIMA, SEARCH) in EURATOM H2020 & FP7 Project funded by the EC. Member of Executive Board of the FALCON Consortium (Fostering ALfred CONstruction).

Name and address of employer	Italian National agency for new technologies, Energy and sustainable economic development – ENEA Brasimone Research Centre
Type of business or sector	Research and technology development in the field of Innovative Nuclear System (Fusion & Gen-IV Fission)
Dates	From January 2013 to July 2015
Occupation or position held	Head of Thermal Fluid Dynamic and Experimental Facilities Laboratory by the Experimental Engineering Technical Unit of Brasimone, ENEA
Main activities and responsibilities	Responsible for the research activities carried out by the Thermal Fluid Dynamic and Experimental Facilities Laboratory, aiming at supporting the technological development of innovative nuclear systems, including ITER, DEMO (EUROFUSION), IFMIF (Broader Approach), MYRRHA-ADS (EURATOM) and ALFRED (DEMO-LFR, EURATOM). Member of the FALCON Consortium (Fostering ALfred CONstruction). Project leader in nuclear components and systems design, development and experimental characterization. Project leader in prototypical instrumentations development for thermal-fluid dynamic systems. Responsible for experimental facilities design and operation both in the frame of nuclear fission (LFR/ADS) and nuclear fusion (ITER/DEMO). Project leader and coordination in experimental campaign conceptualization, implementation and results analysis. Scientific responsible of CIRCE facility, the largest heavy liquid metal pool-type integral test facility worldwide. Responsible for the conceptualization, design, procurement, installation, commissioning and operation of CIRCE test sections, and HLM facilities @ Brasimone (HELENA and NACIE loop).
Name and address of employer	Italian National agency for new technologies, Energy and sustainable economic development – ENEA Brasimone Research Centre
Type of business or sector	Research and technology development in the field of Innovative Nuclear System (Fusion & Gen-IV Fission)
Dates	From November 2010 to December 2018
Occupation or position held	Scientific Advisor of Gen. IV R&D domain in the frame of the Research Program Agreement (ADP) between Minister for the Economic Development (MiSE) and ENEA.
Main activities and responsibilities	Project Leader and Project Manager for the research and development of Lead-cooled Fast Reactor Gen-IV nuclear system in the frame of the ADP MiSE-ENEA. Senior Scientist in the heavy liquid metal technology development, prototypical components design, operation and experimental characterization. Responsible for knowledge dissemination in the frame of the Gen. IV R&D domain.
Name and address of employer	Italian National agency for new technologies, Energy and sustainable economic development – ENEA Brasimone Research Centre
Type of business or sector	Research and technology development in the field of Gen-IV nuclear systems (Gen-IV Fission).
Dates	From January 2009 to July 2015
Occupation or position held	Nuclear Researcher
Main activities and responsibilities	Research and development in the frame of innovative nuclear systems. Liquid metal technology development for Lead-cooled Fast Reactor (LFR) and Accelerator Driven System (ADS). Lead-Lithium Technology development in support of WCLL-BB, HCLL-BB. Helium System analysis and design for HCPB-BB. Lithium technology development for IFMIF. Nuclear components design, development and experimental characterization. Prototypical instrumentations development for thermal-fluid dynamic systems. Experimental facilities design and operation. Experimental campaign conceptualization, implementation and results analysis. Scientific responsible of the CIRCE pool facility for the heavy liquid metal pool thermal fluid dynamic characterization and forced/mixed convection studies. Scientific responsible of CIRCE pool facility for gas lift investigation in large pool. Scientific responsible of the NACIE loop for the natural circulation studies in heavy liquid metal systems. Studies on the forced to natural circulation transition.

Name and address of employer	Italian National agency for new technologies, Energy and sustainable economic development – ENEA Brasimone Research Centre
Type of business or sector	Research and technology development in the field liquid metal technology (Fusion & Gen-IV Fission).

Education and training

Dates	June 2008
Title of qualification awarded	Ph.D. on Industrial and Nuclear Safety (cycle 2005-2007) with a work on “Experimental Investigation of the Thermal Hydraulic behaviour of Heavy Liquid Metal Cooled Reactors”
Principal subjects/occupational skills covered	Thermal fluid dynamic on innovative nuclear systems with particular reference on heavy liquid metal cooled reactor (LFR/ADS). Experimental activities conceptualization, implementation, carrying out and analysis. Experimental test section design and operation.
Name and type of organisation providing education and training	University of Pisa, Italy

Dates	October 2004
Title of qualification awarded	Master Science on Nuclear Engineering (110/110 cum laude) with a work on “Theoretical and experimental analysis on natural and gas enhanced circulation in heavy liquid metal cooled systems” (in Italian)
Principal subjects/occupational skills covered	Thermal fluid dynamic of heavy liquid metal cooled systems. Experimental activities conceptualization, implementation, carrying out and analysis. Experimental test section design and operation.
Name and type of organisation providing education and training	University of Pisa, Italy

Personal skills and competences

Mother tongue(s): Italian

Other language(s): English

Self-assessment	Understanding		Speaking		Writing
European level (*)	Listening	Reading	Spoken interaction	Spoken production	
Language	B2	C1	C1	C1	C1

(*) Common European Framework of Reference for Languages

Social skills and competences	Father of two lively kids.
Technical skills and competences	Large competencies in heavy-liquid metal technologies for nuclear systems. Expert on Gen. IV Lead-cooled Fast Reactors and liquid metal fast reactors. Knowledge on Fusion Breeding Blanket and Divertor Technologies cooled by Liquid Metals. Knowledge on IFMIF-DONES/ITER/DEMO/DTT/SORGENTINA nuclear system. Thermal fluid dynamic of innovative nuclear systems. Structural materials characterization in harsh conditions (irradiation, liquid metal corrosion) Components/Prototypes characterization in experimental infrastructures. Instrumentations conceptualization and development. Heat removal systems design and qualification. Thermo-mechanic analysis of systems and components. Project Management and Coordination
Computer skills and competences	Windows OS. Microsoft Office Tools: MATLAB, MATHCAD, PRO-ENGINEERING, AUTOCAD, CATIA Codes: ANSYS-FLUENT, RELAP5/Mod 3.2, ANSYS, SIMMER III

Others	Training Course for Security and Safety Managers, in compliance with art.18, c.1, lett.1), art.37, c.7 and art.55, c.5, lett. c) of Legislative Decree 81/08 and subsequent amendments 9th April 2019
Additional information	
Annexes	List of Publications

I authorize the processing of my personal data in the curriculum vitae pursuant to Legislative Decree 30 June 2003, n. 196 and of the GDPR (EU Regulation 2016/679)

Bologna, 10/09/2026



List of Publications

Paper on International Journals

1. W. Ambrosini, M. Azzati, G. Benamati, L. Cinotti, N. Forgione, F. Oriolo, G. Scaddozzo, M. Tarantino, **"Testing and qualification of CIRCE instrumentation based on bubble tubes",** Journal of Nuclear Materials 235 (2004), https://doi.org/10.1016/j.jnucmat.2004.07.030
2. W. Ambrosini, F. Forasassi, N. Forgione, F. Oriolo, M. Tarantino, "**Experimental study on combined natural and gas-injection enhanced circulation**", Nuclear Engineering and Design 235 (2005), https://doi.org/10.1016/j.nucengdes.2005.01.017
3. C. Foletti, G. Scaddozzo, M. Tarantino, A. Gessi, G. Bertacci, P. Agostini, G. Benamati "**ENEA experience in LBE technology**" , Journal of Nuclear Materials 356 (2006), https://doi.org/10.1016/j.jnucmat.2006.05.020
4. G. Benamati, C. Foletti, N. Forgione, F. Oriolo, G. Scaddozzo, M. Tarantino, "**Experimental study on gas-injection enhanced circulation performed with the CIRCE facility",** Nuclear Engineering and Design 237 (2007), https://doi.org/10.1016/j.nucengdes.2006.09.005
5. G. Benamati, S. De Grandis, F. Oriolo, M. Tarantino "**Natural Circulation in a Liquid Metal One-Dimensional Loop**", Journal of Nuclear Materials 376 (2008), https://doi.org/10.1016/j.jnucmat.2008.02.080
6. W. Ambrosini, N. Forgione, F. Oriolo, E. Semeraro, M. Tarantino, "**Experimental Study on Natural Circulation and Air-Injection Enhanced Circulation With Different Fluids"** Journal of Engineering for Gas Turbines and Power 131 (2009), https://doi.org/10.1115/1.3043819
7. M. Tarantino, G. Coccoluto, P. Gaggini, V. Labanti, W. Ambrosini, N. Forgione, A. Napoli, F. Oriolo "**Heavy Liquid Metal Natural Circulation in a One - Dimensional Loop"** Journal of Nuclear Engineering and Design 241 (2011), https://doi.org/10.1016/j.nucengdes.2010.06.048
8. M. Tarantino, P. Agostini, G. Benamati, G. Coccoluto, P. Gaggini, V. Labanti, G.Venturi, A. Class, K. Liftin, N. Forgione, V. Moreau "**Integral Circulation Experiment: Thermal-Hydraulic Simulator of a Heavy Liquid Metal Reactor"** Journal of Nuclear Material 415 (2011), https://doi.org/10.1016/j.jnucmat.2011.04.033
9. I. Di Piazza, F. Magugliani, M. Tarantino, A. Alemberti "**A CFD Analysis of Flow Blockage Phenomena in ALFRED LFR DEMO Fuel Assembly**", Journal of Nuclear Engineering and Design 276 (2014), https://doi.org/10.1016/j.nucengdes.2014.05.033
10. D. Rozzia, G. Fasano, I. Di Piazza, M. Tarantino, "**Experimental Investigation on Powder Conductivity for the Application to Double Wall Heat Exchanger (NACIE-UP)**", Journal of Nuclear Engineering and Design 283 (2015), https://doi.org/10.1016/j.nucengdes.2014.06.037

11. M. Tarantino, D. Martelli, G. Barone, I. Di Piazza, N. Forgione, "**Mixed Convection and Stratification Phenomena in a Heavy Liquid Metal Pool**", Journal of Nuclear Engineering and Design 286 (2015), https://doi.org/10.1016/j.nucengdes.2015.02.012
12. G. Bandini, M. Polidori, P. Meloni, M. Tarantino, I. Di Piazza "**RELAP5 and SIMMER-III code assessment on CIRCE decay heat removal experiments**", Journal of Nuclear Engineering and Design 281 (2015), https://doi.org/10.1016/j.nucengdes.2014.11.005
13. D. Martelli, N. Forgione, I. Di Piazza, M. Tarantino "**HLM Fuel Pin Bundle Experiment in CIRCE pool facility**", Journal of Nuclear Engineering and Design, 292 (2015), https://doi.org/10.1016/j.nucengdes.2015.06.004
14. G. Barone, N. Forgione, D. Martelli, M. Tarantino "**Development of a Model for the Thermal-Hydraulic characterization of the He-FUS3 Loop**", Fusion Engineering and Design 96 (2015), https://doi.org/10.1016/j.fusengdes.2015.02.037
15. I. Di Piazza, M. Angelucci, R. Marinari, M. Tarantino, N. Forgione "**Heat transfer on HLM cooled wire-spaced fuel pin bundle simulator in the NACIE-UP Facility**" Journal of Nuclear Engineering and Design 300 (2016), https://doi.org/10.1016/j.nucengdes.2016.02.008
16. S. Bassini, A. Antonelli, I. Di Piazza, M. Tarantino, "**Oxygen Sensors for Heavy Liquid Metal Coolants: Calibration and Assessment of the Minimum Reading Temperature**", Journal of Nuclear Materials 486 (2017) https://doi.org/10.1016/j.jnucmat.2017.01.031
17. D. Martelli, R. Marinari, G. Barone, I. Di Piazza, M. Tarantino, "**CFD thermo-hydraulic analysis of the CIRCE fuel bundle**", Annals of Nuclear Energy 103 (2017), https://doi.org/10.1016/j.anucene.2017.01.031
18. M. Lizzoli, W. Borreani, F. Devia, G. Lomonaco, M. Tarantino, "**Preliminary CFD assessment of an experimental test facility operating with heavy liquid metals**" Hindawi, Science and Technology of Nuclear Installations, Volume 2017, https://doi.org/10.1155/2017/1949673
19. F. García Ferré, A. Mairov, D. Iadicicco, M. Vanazzi, S. Bassini, M. Utili, M. Tarantino, M. Bragaglia, F.R. Lamastra, F. Nanni, L. Ceseracciu, Y. Serruys, P. Trocellier, L. Beck, K. Sridharan, M.G. Beghi, F. Di Fonzo, "**Corrosion and radiation resistant nanoceramic coatings for lead fast reactors**" Corrosion Science 124 (2017), https://doi.org/10.1016/j.corsci.2017.05.011
20. S. Bassini, I. Di Piazza, A. Antonelli, M. Angelucci, V. Sermenghi, G. Polazzi, M. Tarantino, "**In-Loop oxygen reduction in HLM thermal-hydraulic facility NACIE-UP**", Progress in Nuclear Energy 105 (2018), https://doi.org/10.1016/j.pnucene.2018.01.006
21. P. Lorusso, S. Bassini, A. Del Nevo, I. Di Piazza, F. Giannetti, M. Tarantino, M. Utili, "**Gen-IV LFR Development; Status & Perspectives**" Progress in Nuclear Energy, 105 (2018), https://doi.org/10.1016/j.pnucene.2018.02.005

22. V. Narcisi, F. Giannetti, A. Del Nevo, M. Tarantino, G. Caruso, "**Pre-test analysis of accidental transients for ALFRED SGBT mock-up characterization**", Nuclear Engineering and Design, 333 (2018) https://doi.org/10.1016/j.nucengdes.2018.04.015

23. D. Martelli, G. Barone, M. Tarantino, M. Utili, "**Design of a new experimental loop and of a coolant purifying system or corrosion experiments of EUROFER samples in flowing PbLi environment**" Fusion Engineering and Design, 124 (2017) https://doi.org/10.1016/j.fusengdes.2017.01.054

24. A. Del Nevo, E. Martelli, P. Agostini, P. Arena, G. Bongiovì, G. Caruso, G. Di Gironimo, P.A. Di Maio, M. Eboli, R. Giammusso, F. Giannetti, A. Giovinazzi, G. Mariano, F. Moro, R. Mozzillo, A. Tassone, D. Rozzia, A. Tarallo, M. Tarantino, M. Utili, R. Villari "**WCLL breeding blanket design and integration for DEMO 2015: status and perspectives**" Fusion Engineering and Design, 124 (2017), https://doi.org/10.1016/j.fusengdes.2017.03.020

25. A. Pucciarelli, F. Buzzi, F. Galleni, M. Tarantino, N. Forgione, "**Analysis of thermal stratification phenomena in the CIRCE-HERO Facility**", Annals of Nuclear Energy 141 (2020), https://doi.org/10.1016/j.anucene.2020.107320

26. P. Favuzza, A. Aiello, A. Antonelli, M. Cuzzani, G. Fasano, M. Granieri, S. Mannori, G. Miccichè, F.S. Nitti, M. Tarantino, A. Tincani "**Erosion-corrosion resistance of Reduced Activation Ferritic-Martensitic steels exposed to flowing liquid Lithium**", Fusion Engineering and Design, 136 (2018), https://doi.org/10.1016/j.fusengdes.2018.05.028

27. R. Marinari, I. Di Piazza, M. Tarantino, M. Angelucci, D. Martelli, "**Experimental tests and post-test analysis of non-uniformly heated 19-pins fuel bundle cooled by Heavy Liquid Metal**" Nuclear Engineering and Design 343 (2019), https://doi.org/10.1016/j.nucengdes.2018.12.024

28. A. Del Nevo, P. Arena, G. Caruso, P. Chiovaro, P.A. Di Maio, M. Eboli, F. Edemetti, N. Forgione, R. Forte, A. Froio, F. Giannetti, G. Di Gironimo, K. Jiang, S. Liu, F. Moro, R. Mozzillo, L. Savoldi, A. Tarallo, M. Tarantino, A. Tassone, M. Utili, R. Villari, R. Zanino, E. Martelli "**Recent progress in developing a feasible and integrated conceptual design of the WCLL BB in EUROfusion project**", Fusion Engineering and Design 146 (2019), https://doi.org/10.1016/j.fusengdes.2019.03.040

29. I. Di Piazza, M. Angelucci, R. Marinari, M. Tarantino, D. Martelli "**Thermo-Fluid Dynamic Transients in the NACIE-UP Facility**" Nuclear Engineering and Design 352 (2019), https://doi.org/10.1016/j.nucengdes.2019.110182 .

30. M. Profir, V. Moreau, A. Alemberti, M. Frignani, F. Merli, M. Belka, O. Frybort, T. Melichar, M. Tarantino, S. Franke, S. Eckert, A. Class, J. Yanez Escanciano, D. Grishchenko, P. Kudinov, M. Jeltson, F. Roelofs, K. Zwijsen, D. Visser, A. Badillo, B. Niceno "**Pool CFD Modelling: Lessons from the SESAME Project**" Nuclear Engineering and Design 355 (2019), https://doi.org/10.1016/j.nucengdes.2019.110343

31. D. Martelli, M. Tarantino, N. Forgione, "**CIRCE-ICE PLOHS Experimental campaign**" Nuclear Engineering and Design 355 (2019), https://doi.org/10.1016/j.nucengdes.2019.110307
32. P. Lorusso, A. Pesetti, M. Tarantino, V. Narcisi, F. Giannetti, N. Forgione, A. Del Nevo, "**Experimental Analysis of Stationary and Transient Scenarios of ALFRED Steam Generator Bayonet Tube in CIRCE-HERO Facility**" Nuclear Engineering and Design 352 (2019), https://doi.org/10.1016/j.nucengdes.2019.110169
33. M. Frignani, A. Alemberti, M. Tarantino, **"ALFRED: a revised concept to improve pool related thermal-hydraulics**" Nuclear Engineering and Design 335 (2019), https://doi.org/10.1016/j.nucengdes.2019.110359
34. R. Marinari, I Di Piazza, M. Tarantino, N. Forgione, "**Blockage Fuel Pin Simulator Experiments and Simulation**" Nuclear Engineering and Design 353 (2019), https://doi.org/10.1016/j.nucengdes.2019.110215
35. P. Lorusso, A. Pesetti, G. Barone, D. Castelliti, G. Caruso, N. Forgione, F. Giannetti, D. Martelli, D. Rozzia, K.Van Tichelen, M. Tarantino, "**MYRRHA Primary Heat Exchanger Experimental Simulations on CIRCE-HERO**" Nuclear Engineering and Design 353 (2019), https://doi.org/10.1016/j.nucengdes.2019.110270
36. A. Venturini, M. Utili, D. Martelli, A .Malavasi, I. Ricapito, M. Tarantino "**Experimental investigation on HCLL-TBS In-box LOCA"** Fusion Engineering and Design 146 (2019), https://doi.org/10.1016/j.fusengdes.2018.12.012
37. V. Narcisi, F. Giannetti, E. Martelli, A. Del Nevo, M. Tarantino, G. Caruso "**Steam Generator mock-up preliminary design suitable for Pb-Li technology demonstration and code assessment**" Fusion Engineering and Design 146 (2019), https://doi.org/10.1016/j.fusengdes.2019.02.022
38. V. Narcisi, F. Giannetti, A. Del Nevo, M Tarantino, G. Caruso "**Post-Test Simulation of a PLOFA Transient Test in the CIRCE-HERO Facility**" Nuclear Engineering and Design 355 (2019), https://doi.org/10.1016/j.nucengdes.2019.110321
39. M. Tarantino F. Roelofs, A. Shams, A. Batta, V. Moreau, I. Di Piazza, A. Gerschenfeld, P. Planquart, "**SESAME PROJECT: ADVANCEMENTS IN LIQUID METAL THERMAL HYDRAULICS EXPERIMENTS AND SIMULATIONS**", EPJ Nuclear Sciences & Technologies, Vol, No (2019), https://doi.org/10.1051/epjn/2019046
40. F. Galleni, G. Barone, D. Martelli, A. Pucciarelli, P. Lorusso, M. Tarantino, N. Forgione "**Simulation of operational conditions of HX-HERO in the CIRCE facility with CFD/STH coupled codes**" Nuclear Engineering and Design 361 (2020), https://doi.org/10.1016/j.nucengdes.2020.110552
41. E. Martelli, A. Del Nevo, P. Lorusso, F. Giannetti, V. Narcisi, M. Tarantino, "**Investigation of heat transfer in a steam generator bayonet tube for the development of PbLi technology for EU DEMO fusion reactor**" Fusion Engineering and Design 159 (2020), https://doi.org/10.1016/j.fusengdes.2020.111772

42. M. Tarantino, D. Martelli, A. Del Nevo, M. Utili, I. Di Piazza, M. Eboli, D. Diamanti, A. Tincani, G. Miccichè, D. Bernardi, S. Nitti, C. Cristalli, S. Bassini, A. Fiore, S. Cataldo, C. Sartorio, A. Venturini, R. Marinari, P. Lorusso, "**Fusion Technologies Development at ENEA Brasimone Research Centre: Status and perspectives"** Fusion Engineering and Design 160 (2020) https://doi.org/10.1016/j.fusengdes.2020.112008

43. D. Martelli , S. Bassini, M. Utili, M. Tarantino, S. Lionetti, E. Zanin "**LIFUS II corrosion loop final design and screening of an Al based diffusion coating in stagnant LLE environment"** Fusion Engineering and Design 160 (2020) https://doi.org/10.1016/j.fusengdes.2020.112034

44. A. Alemberti, M. Caramello, M. Frignani, G. Grasso, F. Merli, G. Morresi, M. Tarantino, "**ALFRED reactor coolant system design**" Nuclear Engineering and Design 370 (2020), https://doi.org/10.1016/j.nucengdes.2020.110884

45. Lorusso, P.; Martelli, E.; Del Nevo, A.; Narcisi, V.; Giannetti, F.; Tarantino, M. "**Experimental Investigation on CIRCE-HERO for the EU DEMO PbLi/Water Heat Exchanger Development**". Energies 2021, 14, 628. https://doi.org/10.3390/en14030628

46. Liao J.; Ferroni P.; Wright R.F.; Bachrach U.; Scobel J.H.; Sofu T.; Tentner A.M.; Jin Lee S.; Epstein M.; Frignani M.; Tarantino M.; "**Development of phenomena identification and ranking table for Westinghouse lead fast reactor's safety"** Progress in Nuclear Energy 131 (2021), https://doi.org/10.1016/j.pnucene.2020.103577

47. P. Lorusso, A. Del Nevo, V. Narcisi, F. Giannetti, G. Caruso, K. Zwijsen, P. A. Breijder, T. Hamidoche, D. Castelliti, D. Rozzia, M. Tarantino, "**Total loss of flow benchmark in CIRCE-HERO integral test facility**" Nuclear Engineering and Design 376 (2021), https://doi.org/10.1016/j.nucengdes.2021.111086

48. P. Lorusso, E. Martelli, A. Del Nevo, V. Narcisi, F. Giannetti, M. Tarantino, "**Development of a PbLi heat exchanger for EU DEMO fusion reactor: Experimental test and system code assessment**" Fusion Engineering and Design 169 (2021), https://doi.org/10.1016/j.fusengdes.2021.112462

49. M. Tarantino, P. Lorusso, A. Del Nevo, I. Di Piazza, F. Giannetti, D. Martelli, "**Preliminary design of a helical coil steam generator mock-up for the CIRCE facility for the development of DEMO LiPb heat exchanger**" Fusion Engineering and Design 169 (2021), https://doi.org/10.1016/j.fusengdes.2021.112459

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