

PERSONAL INFORMATION **Agustin Abarca Gimenez**



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Sex Male | Date of birth 04/17/1984 | Nationality Spain

PROFESSIONAL EXPERIENCE

Senior Research Scholar (2019-present)

Department of Nuclear Engineering
North Carolina State University, 27695-7909, Raleigh, NC, USA.

- Management of CTF stand-alone official repositories.
- Management of the service center on the CTF Users Group Framework.
- CTF and CTFFuel developer.
- Multi-physics analyst and developer.

Field of activity: Research and education.

Postdoctoral Research Scholar (2018-2019)

Department of Nuclear Engineering
North Carolina State University, 27695-7909, Raleigh, NC, USA.

- Co-management of the CTF GitHub official repositories.
- Co-management of the service center on the CTF Users Group Framework.
- CTF and CTFFuel developer.
- Multi-physics coupling and multi-physics platform developer.
- Develop applications of CTF and TRACE codes to LWR.

Field of activity: Research and education.

Senior Researcher (2009-2017)

Instituto en Seguridad Industrial, Radiofísica y Medio Ambiente (ISIRYM)

Universitat Politècnica de València, Camí de Vera, s/n 46022, Valencia, ESPAÑA.

- Participation in research contracts with private companies.
 - Puesta en funcionamiento de la opción de cinética 1D con TRAC-BF1/APK y su validación con el input de Peach-Bottom TT. IBERDROLA INGENIERIA Y CONSTRUCCION, S.A.U. (2009).
 - Análisis del RIA 3D con RELAP5/PARCS para la CN Almaraz. IBERDROLA INGENIERIA Y CONSTRUCCION, S.A.U. (2009).
 - Incorporación en simuladores avanzados de capacidades de simulación de condiciones locales de barra: programa COBRA-TF, acoplamiento COBRA-TF con TRACE. IBERDROLA GENERACIÓN NUCLEAR, S.A. (2013).
 - Desarrollo de la reproducción del SCARM61 de la CN Cofrentes con el código TRAC-BF1/BE y PARCS. IBERDROLA INGENIERIA Y CONSTRUCCION, S.A.U. (2013).
 - Revisión y documentación del código COBRA-TF. IBERDROLA GENERACIÓN NUCLEAR, S.A. (2014).
- Participation in subsidized research projects in public calls.
 - Desarrollo y validación experimental de un sistema de planificación de tratamientos radioterapéuticos utilizando técnicas de Monte Carlo (PPI-06-05-5700). UNIVERSIDAD POLITECNICA DE VALENCIA. (2009).
 - INEUTRON: metodología de análisis de incertidumbres aplicada a los modelos neutrónicos de plantas nucleares (2670). UNIVERSIDAD POLITECNICA DE VALENCIA. (2010-2011).
 - OPENNUC: plataforma de simulación termohidráulico-neutrónica 3D de altas prestaciones y capacidades avanzadas. Validación mediante 'benchmarks' internacionales (SP20120487). UNIVERSIDAD POLITECNICA DE VALENCIA. (2012-2013).
 - Desarrollo de una Plataforma Multifísica de Altas Prestaciones para Simulaciones Termohidráulico-Neutrónicas en Ingeniería Nuclear (ENE2012-34585). MINISTERIO DE ECONOMIA Y COMPETITIVIDAD. (2013-2015).

Field of activity: Reseach and education.

External consultant (2013-2016)

Innovative System Software, LCC (ISS)

Innovative System Software, 3585 Briar Creek Ln, Ammon, Idaho 83406, USA.

- External consultant and programmer of the computer code for analysis in nuclear safety of severe accidents RELAP/SCDAP.

Field of activity: private sector.

Work placements in Iberdrola, S.A. (2008-2009)

Department of Radiation Protection of the Cofrentes Nuclear Power Plant, under the supervision of the Chief of Radiological Protection Service Dr. Eduardo Sollet Sañudo.

- Collaboration in the development of dosimetry systems.
- Collaboration in the implementation of radiological and dosimetry monitoring equipment.

Field of activity: private sector.

EDUCATION AND TRAINING

PhD in Engineering with a major in Nuclear Engineering

Universitat Politècnica de València
 Chemical and Nuclear Department. July 2017

Master's degree in Industrial Safety and Environment with a major in Environment and Nuclear Safety

Universitat Politècnica de València
 Chemical and Nuclear Department. December 2010

Degree in Industrial Engineer with a major in Energetics Technics

Universitat Politècnica de València
 Higher Technical School of Industrial Engineering. June 2009

PERSONAL SKILLS

Mother tongue(s) Spanish

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
 Common European Framework of Reference for Languages

Communication skills ▪ Good communicative skills acquired thanks to my experience in and the different lectures held at national and international conferences.

Organisational / managerial skills ▪ Capacity of project management and teamwork acquired in the multiple projects.

Job-related skills ▪ Good synthesis capacity acquired during the preparation of the documentation delivered for the billing of the different projects in which I am involved.

Digital/Informatics competences

- Great experience in Unix and MS Windows™ environments.
- Good management of Microsoft Office™ programs.
- Experience in using MS Project™.
- Experience in programming in C++, Fortran, Python and Matlab® languages.
- Great experience with programming environments in Unix and MS Windows™: Compaq Visual Fortran®, MS Visual Studio®, Intel Parallel Studio®, Eclipse, etc.,
- Experience in high performance computing (HPC) and parallel computing using distribute memory MPI and shared memory OpenMP technologies.
- Experience in Computational Fluid Dynamics suites such as ANSYS CFX® and OpenFOAM®.
- Great experience in all types of computer codes related to the nuclear industry: thermal-hydraulics, reactor physics, dose calculation, APR / APS, etc.,

Nuclear Engineering applied competences

- Great experience in thermal-hydraulics, mainly developed in applications with the subchannel code CTF and in the NRC system codes TRACE and RELAP.
- Experience in the reactor kinetics, specially with diffusion codes like PARCS and NEM.
- Experience developing models with the Symbolic Nuclear Application Package (SNAP).
- Experience in fuel performance, developed in application with the codes FRAPCON/FRAPTRAN.
- Great experience in multi-physics coupling with the development of CTF/PARCS, CTF/TRACE/PARCS and CTF/FRAPTRAN couplings.
- Great experience in 3D multi-physics simulations and BWR core stability.
- Experience in thermal-hydraulic and fuel performance U&S analysis.
- Great experience building BWR fuel assembly and core models in both bundle and pin wise.
- Experience in the SCALE suite in reactor physics and depth penetration problems.
- User level experience in CASMO and SIMULATE codes.

Driving license

- B1 Spanish license and Class C USA license

SPECIALIST, ONGOING, TECHNICAL, PROFESSIONAL TRAINING

1. **Type of Training:** Course
Title of the specific: VERIFICACIÓN, VALIDACIÓN Y CUANTIFICACIÓN DE INCERTIDUMBRES EN COMPUTACIÓN CIENTÍFICA MULTIFÍSICA
City: VALENCIA, Spain
Entity issuing the qualification: UNIVERSITAT POLITÈCNICA DE VALÈNCIA
Date of end of training: 29/05/2015
2. **Type of Training:** Course
Title of the specific: AUTOCONSUMO CON BATERÍAS. CÁLCULO Y DISEÑO DE INSTALACIONES - SOLAR ROCKET
City: VALENCIA, Spain
Entity issuing the qualification: UNIVERSITAT POLITÈCNICA DE VALÈNCIA
Date of end of training: 03/03/2015
3. **Type of Training:** Course
Title of the specific: PREVENCIÓN DE RIESGOS LABORALES: PERFIL INVESTIGACIÓN/LABORATORIO
City: VALENCIA, Spain
Entity issuing the qualification: UNIVERSITAT POLITÈCNICA DE VALÈNCIA
Date of end of training: 17/12/2013
4. **Type of Training:** Course
Title of the specific: CTF models, code structure, input deck generation and output analysis.
City: Madrid, Spain
Entity issuing the qualification: Iberdrola Ingeniería y Construcción y Departamento de Ingeniería Química y Nuclear de la Universitat Politècnica de València
Date of end of training: 25/05/2012
5. **Type of Training:** Course
Title of the specific: CFD's APLICADO A LA INDUSTRIA NUCLEAR
City: VALENCIA, Spain
Entity issuing the qualification: UNIVERSITAT POLITÈCNICA DE VALÈNCIA
Date of end of training: 20/10/2011
6. **Type of Training:** Course
Title of the specific: PENELOPE 2008 Training Course
City: Barcelona, Spain
Entity issuing the qualification: OECD Nuclear Energy Agency, NEA; Universitat de Barcelona.
Date of end of training: 03/07/2008
7. **Type of Training:** Course
Title of the specific: Intensive Course on Accelerators and Reactor Operation (ICARO)
City: Lisbon, Portugal
Entity issuing the qualification: Cooperation for Higher Education on Radiological and Nuclear Engineering (CHERNE).
Date of end of training: 01/03/2009

TEACHING

University teaching

1. **Professional category:** Researcher in Training
Dedication: Part time **Credits given:** 2.7
Start date: 03-02-2014 **End date:** 06-30-2014
Department: Department of Chemical and Nuclear Engineering
Subject: Radiotherapy and Radiological Protection
2. **Professional category:** Researcher in Training
Dedication: Part time **Credits given:** 2.7
Start date: 03-07-2015 **End date:** 07-04-2015
Department: Department of Chemical and Nuclear Engineering
Subject: Radiotherapy and Radiological Protection

Courses or Teacher Training Programs

1. **Course Title:** CTF TRAINNING
Center: Oak Ridge National Laboratory (ORNL).
Year: 2019 **Number of hours taught:** 5
2. **Course Title:** NUCLEAR REACTOR SIMULATION HANDS-ON-TRAINNING (NRSHOT): CTF – BEGINNER.
Center: Nuclear and Industrial Engineering (NINE) Headquarters, Lucca, Italy.
Year: 2019 **Number of hours taught:** 25
3. **Course Title:** SCALE CODE (KENO / MAVRIC) IN CRITICAL CALCULATIONS, SOURCE TERM AND DOSIMETRÍA
Center: Universitat Politècnica de València
Year: 2016 **Number of hours taught:** 6
4. **Course Title:** BASIC COURSE OF SCIENCE AND NUCLEAR TECHNOLOGY
Center: Universitat Politècnica de València
Year: 2016 **Number of hours taught:** 0.44
5. **Course Title:** MONTE CARLO MCNP CODE APPLIED TO APPLICATION CALCULATIONS MEDICAL AND RADIOLOGICAL PROTECTION
Center: Universitat Politècnica de València
Year: 2015 **Number of hours taught:** 3
6. **Course Title:** COURSE CODE THERMOHYDRAULIC-NEUTRONIC 3D RELAP5 / PARCS v2.7
Center: Nuclear Power Station Almaraz-Trillo (CNAT), Madrid.
Year: 2014 **Number of hours taught:** 6
7. **Course Title:** MONTE CARLO MCNP CODE APPLIED TO APPLICATION CALCULATIONS MEDICAL AND RADIOLOGICAL PROTECTION
Center: Universitat Politècnica de València
Year: 2011 **Number of hours taught:** 4

SCIENTIFIC OR
TECHNOLOGICAL ACTIVITY

Participation in R&D&I projects funded in competitive tenders by public or private bodies

1. **Name of the project:** Desarrollo de una Plataforma Multifísica de Altas Prestaciones para Simulaciones Termohidráulico-Neutrónicas en Ingeniería Nuclear (ENE2012-34585)
Body where project took place: Universitat Politècnica de València
Head(s) researcher(s): Miró Herrero Rafael
Number of participating researchers: 10
Funding body or bodies: MINISTERIO DE ECONOMIA INDUSTRIA Y COMPETITIVIDAD
Start date: 15/09/2013 **Duration of the project:** 24 months
Total amount: 85.410
2. **Name of the project:** OPENNUC. PLATAFORMA DE SIMULACIÓN TERMOHIDRÁULICO-NEUTRÓNICA 3D DE ALTAS PRESTACIONES Y CAPACIDADES AVANZADAS. VALIDACIÓN MEDIANTE BENCHMARKS INTERNACIONALES (SP20120487)
Body where project took place: Universitat Politècnica de València
Head(s) researcher(s): Miró Herrero Rafael
Number of participating researchers: 7
Funding body or bodies: UNIVERSIDAD POLITECNICA DE VALENCIA
Start date: 31/12/2012 **Duration of the project:** 12 months
Total amount: 0
3. **Name of the project:** INEUTRON: METODOLOGIA DE ANALISIS DE INCERTIDUMBRES APLICADA A LOS MODELOS NEUTRONICOS DE PLANTAS NUCLEARES (2670)
Body where project took place: Universitat Politècnica de València
Head(s) researcher(s): Verdú Martín Gumersindo Jesús
Number of participating researchers: 8
Funding body or bodies: UNIVERSIDAD POLITECNICA DE VALENCIA
Start date: 15/12/2010 **Duration of the project:** 12 months
Total amount: 11.500
4. **Name of the project:** DESARROLLO Y VALIDACION EXPERIMENTAL DE UN SISTEMA DE PLANIFICACION DE TRATAMIENTOS RADIOTERAPEUTICOS UTILIZANDO TECNICAS DE MONTE CARLO (PPI-06-05-5700)
Body where project took place: Universitat Politècnica de València
Head(s) researcher(s): Miró Herrero Rafael
Number of participating researchers: 9
Funding body or bodies: UNIVERSIDAD POLITECNICA DE VALENCIA
Start date: 31/12/2005 **Duration of the project:** 24 months
Total amount: 14.900

Participation in R&D&I contracts, agreements or projects, not the result of competitive bidding, with companies (or internally in them) and/or governments

1. **Name of the project:** MEJORA DE LOS MODELOS DE COMBUSTIBLE Y DOCUMENTACION DEL CODIGO COBRA-TF/IBER
Body where project took place: Universitat Politècnica de València
Head researcher: Verdú Martín Gumersindo Jesús
Number of participating researchers: 5
Funding body: IBERDROLA GENERACION NUCLEAR, S.A.
Start date: 08/09/2015 **Duration of project:** 12 months
Total amount: 29.000
2. **Name of the project:** SERVICIOS DE ASESORAMIENTO TH/NEUTRONICO DE CNA DURANTE 2014-2015
Body where project took place: Universitat Politècnica de València
Head researcher: Miró Herrero Rafael
Number of participating researchers: 6
Funding body: COMUNIDAD DE BIENES CENTRAL NUCLEAR DE ALMARAZ
Start date: 01/01/2015 **Duration of project:** 8 months
Total amount: 30.000

3. **Name of the project:** SERVICIOS DE ASESORAMIENTO TH/NEUTRONICO DE CNT DURANTE 2014-2015
Body where project took place: Universitat Politècnica de València
Head researcher: Miró Herrero Rafael
Number of participating researchers: 5
Funding body: C.B. CENTRAL NUCLEAR DE TRILLO
Start date: 01/01/2015 **Duration of project:** 8 months
Total amount: 30.000
4. **Name of the project:** REVISION Y DOCUMENTACION DEL CODIGO COBRA-TF
Body where project took place: Universitat Politècnica de València
Head researcher: Verdú Martín Gumersindo Jesús
Number of participating researchers: 5
Funding body: IBERDROLA GENERACION NUCLEAR, S.A.
Start date: 01/09/2014 **Duration of project:** 8 months
Total amount: 29.000
5. **Name of the project:** DESARROLLO DE LA REPRODUCCION DEL SCRAM61 DE LA CN COFRENTES CON EL CODIGO TRAC-BF1/BE Y PARCS
Body where project took place: Universitat Politècnica de València
Head researcher: Verdú Martín Gumersindo Jesús
Number of participating researchers: 5
Funding body: IBERDROLA INGENIERIA Y CONSTRUCCION, S.A.U.
Start date: 24/07/2014 **Duration of project:** 6 months
Total amount: 24.000
6. **Name of the project:** INCORPORACION EN SIMULADORES AVANZADOS DE CAPACIDADES DE SIMULACION DE CONDICIONES LOCALES DE CADA BARRA: PROGRAMA COBRA, ACOPLAMIENTO COBRA-TF CON TRACE FASE FINAL
Body where project took place: Universitat Politècnica de València
Head researcher: Verdú Martín Gumersindo Jesús
Number of participating researchers: 5
Funding body: IBERDROLA GENERACION NUCLEAR, S.A.
Start date: 06/05/2013 **Duration of project:** 8 months
Total amount: 29.000
7. **Name of the project:** ANALISIS DEL RIA 3D CON RELAPS/PARCS PARA LA CN ALMARAZ (PEDIDO 4500024883)
Body where project took place: Universitat Politècnica de València
Head researcher: Verdú Martín Gumersindo Jesús
Number of participating researchers: 5
Funding body: IBERDROLA INGENIERIA Y CONSTRUCCION, S.A.U.
Start date: 30/09/2007 **Duration of project:** 15 months
Total amount: 29.500
8. **Name of the project:** PUESTA EN FUNCIONAMIENTO DE LA OPCION DE CINETICA 1D CON TRAC-BF1/APK Y SU VALIDACION CON EL INPUT DE PEACH-BOTOM TT (PEDIDO Nº: 4500024308)
Body where project took place: Universitat Politècnica de València
Head researcher: Verdú Martín Gumersindo Jesús
Number of participating researchers: 4
Funding body: IBERDROLA INGENIERIA Y CONSTRUCCION, S.A.U.
Start date: 01/08/2007 **Duration of project:** 5 months
Total amount: 12.000
9. **Name of the project:** PRESTACIONES DE SERVICIO DEL INSTITUTO DE SEGURIDAD INDUSTRIAL, RADIOFISICA Y MEDIO AMBIENTAL
Body where project took place: Universitat Politècnica de València
Head researcher: Arnal Arnal José Miguel
Number of participating researchers: 9
Funding body: CONSEJO DE SEGURIDAD NUCLEAR
Start date: 19/09/2005 **Duration of project:** 135 months
Total amount: 0

SCIENTIFIC PRODUCTION

Publications, Scientific and Technical Documents published in International Journals

1. Patricio Hidalgo, Agustín Abarca, Rafael Miró, Abdelkrim Sekrhi, Gumersindo Verdú. A multi-scale and multi-physics simulation methodology with the state-of-the-art tools for safety analysis in light water reactors applied to a turbine trip scenario (PART I). Nuclear Engineering and Design, vol 350, pp 195-204, 2019. <https://doi.org/10.1016/j.nucengdes.2019.05.008>.
Type of production: Article **Type of platform:** Journal
2. Ramos Peinado Enrique; Abarca Giménez Agustín; Román Moltó José Enrique; Miró Herrero Rafael. Verification of the Parallel Pin-Wise Core Simulator pCTF/PARCSv3.2 in Operational Control Rod Drop Transient Scenarios. Nuclear Science and Engineering, vol 187, pp. 254 -267. 2016. ISSN 0029-5639.
Type of production: Article **Type of platform:** Journal
3. A. Abarca; Miró Herrero Rafael; Verdú Martín Gumersindo Jesús; J. A. Bermejo. Analysis of Thermal-hydraulic Fluctuations in Trillo NPP with CTF/PARCS v. 2.7 Coupled Code. Journal of Nuclear Engineering and Radiation Science. 2, pp. 1 - 5. 2016. ISSN 2332-8983. DOI: 10.1115/1.4031660 ISSN: 2332-8983
Type of production: Article **Type of platform:** Journal
4. Enrique Ramos; Jose E. Roman; A. Abarca; Rafael Miró; Juan A. Bermejo. Control rod drop transient analysis with the coupled parallel code pCTF-PARCSv2.7. ANNALS OF NUCLEAR ENERGY. 87, pp. 308 - 317. 2016. ISSN 0306-4549. DOI: 10.1016/j.anucene.2015.09.016
Type of production: Article **Type of platform:** Journal
5. Á. Bernal; Abarca Giménez Agustín; Barrachina Celda Teresa María; Miró Herrero Rafael. Methodology to resolve the transport equation with the discrete ordinates code TORT into the IPEN/MB-01 reactor. INTERNATIONAL JOURNAL OF COMPUTER MATHEMATICS. 91, pp. 113 - 123. 2014. ISSN 0020-7160. DOI: 10.1080/00207160.2013.799668
Type of production: Article **Type of platform:** Journal
6. Abarca Giménez Agustín; Barrachina Celda Teresa María; Miró Herrero Rafael; Ginestar Peiro Damián; Verdú Martín Gumersindo Jesús. Peach Bottom instability analysis with a RELAP5/PARCSv2.7 detailed thermal-hydraulic-neutronic model. NUCLEAR ENGINEERING AND DESIGN. 249, pp. 24 - 34. 2012. ISSN 0029-5493
Type of production: Article **Type of platform:** Journal
7. Abarca Giménez Agustín; Barrachina Celda Teresa María; Miró Herrero Rafael; Verdú Martín Gumersindo Jesús. PWR Core Analysis with COBRA-TF/PARCSv2.7 Coupled Codes. Transactions of the American Nuclear Society. pp. 965 - 968. 2012. ISSN 0003-018x
Type of production: Article **Type of platform:** Journal
8. Miró Herrero Rafael; Barrachina Celda Teresa María; Abarca Giménez Agustín; Verdú Martín Gumersindo Jesús. IMPLEMENTATION OF CONTROL ROD MOVEMENT AND BORON INJECTION OPTIONS BY USING CONTROL VARIABLES IN RELAP5/PARCS V2.7 COUPLED CODE. Progress in Nuclear Energy. 53, pp. 1084 - 1090. 2011. ISSN 0149-1970. DOI: <http://dx.doi.org/10.1016/j.bbr.2011.03.031>
Type of production: Article **Type of platform:** Journal
9. Abarca Giménez Agustín; Barrachina Celda Teresa María; Miró Herrero Rafael; Verdú Martín Gumersindo Jesús. Instability Analysis in Peach Bottom NPP Using a Whole Core Thermalhydraulic-Neutronic Model with RELAP5/PARCS v2.7. Journal Progress in Nuclear Science and Technology. 2, pp. 130 - 138. 2011. ISSN 2185-4823
Type of production: Article **Type of platform:** Journal
10. Ródenas Diago José; Abarca Giménez Agustín; Gallardo Bermell Sergio. Analysis of dose rates received around the storage pool for irradiated control rods in a BWR nuclear power plant. APPLIED RADIATION AND ISOTOPES. 69, pp. 1104 - 1107. 2011. ISSN 0969-8043. DOI: 10.1016/j.apradiso.2010.10.019
Type of production: Article **Type of platform:** Journal
11. J. Ródenas; S. Gallardo; A. Abarca. Analysis of the dose rate produced by control rods discharged from a BWR into the irradiated fuel pool. APPLIED RADIATION AND ISOTOPES. 68, pp. 909 - 912. 2010. ISSN 0969-8043 **Type of production:** Article **Type of platform:** Journal
12. J. Ródenas; S. Gallardo; A. Abarca. Estimation of the activity generated by neutron activation in control rods of a BWR. APPLIED RADIATION AND ISOTOPES. 68, pp. 905 - 908. 2010. ISSN 0969-8043
Type of production: Article **Type of platform:** Journal

13. J. Ródenas; A. Abarca; S. Gallardo. Validation of the Monte Carlo model developed to assess the activity generated in control rods of a BWR. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH: SECTION A-ACCELERATORS SP. 619, pp. 258 - 261. 2010.
ISSN 0168-9002
Type of production: Article **Type of platform:** Journal

Publications, Scientific and Technical Documents published in National Journals

1. Garcia-Fenoll Marina; Abarca Giménez Agustín; Gomez-Zarzuola-Quel Consuelo; Barrachina Celda Teresa María; Miró Herrero Rafael; Verdú Martín Gumersindo Jesús. CURSO CÓDIGO ACOPLADO TERMOHIDRÁULICO-NEUTRÓNICO 3D RELAP5/PARCS v2.7. Editorial Universitat Politècnica de València, 2015. ISSN V-1528-2015
Type of production: Book **Type of platform:** Book
2. T. Barrachina; M. Garcia-Fenoll; A. Abarca; R. Miró; G. Verdú; A. Soler; A. Concejal. ACOPLAMIENTO DE LOS CÓDIGOS TRACBF1/PARCSv2.7 EN LINUX SIN INTERFAZ EXTERNA DE COMUNICACIÓN. Nuclear España. pp. 78 - 83. 2014. ISSN 1137-2885
Type of production: Article **Type of platform:** Journal
3. Gomez-Zarzuola-Quel Consuelo; Abarca Giménez Agustín; T. Barrachina; Miró Herrero Rafael; Verdú Martín Gumersindo Jesús. Análisis de estabilidad de Peach Bottom NPP mediante TRACE/PARCS. Nuclear España. pp. 122 - 132. 2014. ISSN 1137-2885
Type of production: Article **Type of platform:** Journal
4. Á. Bernal; Abarca Giménez Agustín; Miró Herrero Rafael; Verdú Martín Gumersindo Jesús. Determinación del nivel del agua del núcleo de reactores PWR usando la señal de detectores neutrónicos excore. Nuclear España. pp. 80 - 90. 2014. ISSN 1137-2885
Type of production: Article **Type of platform:** Journal
5. Ramos Peinado Enrique; Abarca Giménez Agustín; Román Moltó José Enrique; Miró Herrero Rafael. Mejoras en la versión paralela del código termohidráulico de subcanal COBRA-TF. Nuclear España. pp. 123 - 131. 2014. ISSN 1137-2885
Type of production: Article **Type of platform:** Journal
6. Hidalgo-García-Bermejo Patricio; A. Abarca; R. Miró; T. Barrachina; G. Verdú. VALIDACIÓN DEL CÓDIGO SUBCANAL CTF POR MEDIO DE LOS RESULTADOS EXPERIMENTALES DEL BENCHMARK PSBT DE LA OECD/NEA. Nuclear España. pp. 79 - 93. 2014. ISSN 1137-2885
Type of production: Article **Type of platform:** Journal
7. A. Abarca; R. Miró; T. Barrachina; G. Verdú. Validación del Modelo de Crítico Heat Flux de COBRA-TF frente a los Experimentos de Post-Dryout realizados por el Royal Institute of Technology. Nuclear España. pp. 79 - 92. 2014. ISSN 1137-2885
Type of production: Article **Type of platform:** Journal
8. Abarca Giménez Agustín; Miró Herrero Rafael; Barrachina Celda Teresa María; Verdú Martín Gumersindo Jesús; A. Soler. Análisis de alta fidelidad de un elemento BWR con los códigos COBRA-TF/PARCS y TRACE. Nuclear España. pp. 123 - 138. 2013. ISSN 1137-2885
Type of production: Article **Type of platform:** Journal
9. Abarca Giménez Agustín; Ramos Peinado Enrique; Román Moltó José Enrique; Miró Herrero Rafael. Aproximación paralela del código termohidráulico de subcanal COBRA-TF. Nuclear España. pp. 103 - 116. 2013. ISSN 1137-2885
Type of production: Article **Type of platform:** Journal
10. Á. Bernal; Abarca Giménez Agustín; T. Barrachina; Miró Herrero Rafael; Verdú Martín Gumersindo Jesús. Metodología para resolver la ecuación del transporte con el código de ordenadas discretas TORT en el reactor IPEN/MB-01. Nuclear España. pp. 17 - 30. 2013. ISSN 1137-2885
Type of production: Article **Type of platform:** Journal
11. Abarca Giménez Agustín; Barrachina Celda Teresa María; Miró Herrero Rafael; Verdú Martín Gumersindo Jesús. Validación del código acoplado COBRA-TF/PARCSv2.7 ante un transitorio de inyección de boro. Nuclear España. pp. 102 - 109. 2013. ISSN 1137-2885
Type of production: Article **Type of platform:** Journal
12. Garcia-Fenoll Marina; Abarca Giménez Agustín; Barrachina Celda Teresa María; Miró Herrero Rafael; Verdú Martín Gumersindo Jesús. DESARROLLO DE UNA METODOLOGÍA DE ANÁLISIS DE INESTABILIDADES EN REACTORES BWR. Nuclear España. pp. 76 - 76. 2012. ISSN 1137-2885
Type of production: Article **Type of platform:** Journal

13. Abarca Giménez Agustín; Barrachina Celda Teresa María; Miró Herrero Rafael; Verdú Martín Gumersindo Jesús. PROCEDIMIENTO PARA EL ACOUPLE DEL CÓDIGO TERMOHIDRÁULICO DE SUBCANAL COBRA-TF Y EL NEUTRÓNICO PARCS V2.7. Nuclear España. pp. 117 - 117. 2012. ISSN 1137-2885
Type of production: Article **Type of platform:** Journal
14. Abarca Giménez Agustín; Barrachina Celda Teresa María; Miró Herrero Rafael; Verdú Martín Gumersindo Jesús. SIMULACIÓN DE UN NÚCLEO PWR CON EL CÓDIGO ACOPLADO COBRA-TF/PARCS V2.7. Nuclear España. pp. 77 - 77. 2012. ISSN 1137-2885
Type of production: Article **Type of platform:** Journal
15. Abarca Giménez Agustín; Barrachina Celda Teresa María; Miró Herrero Rafael; Ginestar Peiro Damián; Verdú Martín Gumersindo Jesús. ANÁLISIS DE ESTABILIDAD EN EL REACTOR BWR RINGHALS 1 CON LOS CÓDIGOS ACOPLADOS RELAP5/PARCS V2.7. Nuclear España. pp. 27 - 27. 2011. ISSN 1137-2885
Type of production: Article **Type of platform:** Journal
16. Garcia-Fenoll Marina; Abarca Giménez Agustín; Barrachina Celda Teresa María; Miró Herrero Rafael; Verdú Martín Gumersindo Jesús. ANÁLISIS DE UN TRANSITORIO DE INYECCIÓN DE BORO EN UN REACTOR PWR CON EL CÓDIGO ACOPLADO RELAP5/PARCSV2.7. Nuclear España. pp. 49 - 49. 2011. ISSN 1137-2885
Type of production: Article **Type of platform:** Journal
17. Abarca Giménez Agustín; Barrachina Celda Teresa María; Miró Herrero Rafael; Ginestar Peiro Damián; Verdú Martín Gumersindo Jesús. ESTUDIO PARAMÉTRICO DE DIFERENTES PERTURBACIONES APLICADAS AL REACTOR DE LA CENTRAL NUCLEAR DE RINGHALS 1 CON LOS CÓDIGOS ACOPLADOS RELAP5/PARCS. Nuclear España. pp. 123 - 123. 2011. ISSN 1137-2885
Type of production: Article **Type of platform:** Journal
18. A. Abarca; T. Barrachina; R. Miró; G. Verdú. Análisis de estabilidad en C. N. Peach Bottom utilizando un modelo neutrónico-termohidráulico de núcleo completo con el código acoplado RELAP5/PARCS v2.7. Nuclear España. 1, pp. 89 - 90. 2010. ISSN 1137-2885
Type of production: Article **Type of platform:** Journal

Work presented in conferences at the national or international level

1. **Title:** Improvement of the Doppler Feedback Accuracy in CTF-PARCS Coupled Simulations using CTFFuel module.
Name of the conference: ICAPP 2019 – International Congress on Advances in Nuclear Power Plants
City of the publishing body: Juan-les-pins, France
Date of the event: 12-15/05/2019
A. Abarca; M. Avramova; K. Ivanov;
2. **Title:** Multi-physics platform based on NRC codes for improved estimates of local safety parameters for efficient evaluation of realistic safety margins for real-size reactor core modeling
Name of the conference: CAMP 2019 Spring Meeting
City of the publishing body: Valencia (Spain),
Date of the event: 06/2019
A. Abarca; M. Avramova; K. Ivanov;
3. **Title:** High Efficiency Steady State in Burnup Fuel Performance Module for CTF.
Name of the conference: ANS Winter Meeting and Nuclear Technology Expo
City of the publishing body: Orlando, Florida, US
Date of the event: 11-15/11/2018
A. Abarca; M. Avramova; K. Ivanov;
4. **Title:** BEPU methodology for the void fraction prediction in PWR fuel bundles validated with the PSBT benchmark for steady state and transient cases.
Name of the conference: PHYTRA4 – The Fourth International Conference on Physics and Technology of Reactors and Applications
City of the publishing body: Marrakech, Morocco,
Date of the event: 17-19/09/2018
P. Hidalgo; R. Miró; A. Abarca;
5. **Title:** Evaluation of a BEPU Methodology with State-Of-The-Art Tools in a Non-Realistic Turbine Trip with ATWS for a BWR
Name of the conference: BEPU – Best Estimate Plus Uncertainty International Conference.
City of the publishing body: Lucca, Italy,
Date of the event: 13-18/05/2018
P. Hidalgo, A. Abarca, R. Miró, A. Sekhri, W. Zhe

6. **Title:** Uncertainty and Sensitivity Analysis in Void Fraction Prediction with CTF-UPVIS of the PSBT and BFBT Fuel Models for Transient Cases
Name of the conference: BEPU – Best Estimate Plus Uncertainty International Conference.
City of the publishing body: Lucca, Italy,
Date of the event: 13-18/05/2018
P. Hidalgo, A. Abarca, R. Miró
7. **Title:** Verification of PARCSv3.2 coupled code in a Turbine Trip Scenario
Name of the conference: International Congress on Advances in Nuclear Power Plants (ICAPP 2017)
City of the publishing body: Fukui and Kyoto, Japan,
Date of the event: 24-28/04/2017
Abarca; Hidalgo-García-Bermejo, Patricio; Miró Herrero, Rafael; Verdú Martín, Gumersindo Jesús; Sekhri, A.
8. **Title:** ANALYSIS OF THE OECD PEACH BOTTOM TURBINE TRIP 2 BENCHMARK WITH THE CTF-IBER/PARCSv3.2 COUPLED CODE
Name of the conference: 17th International Topical Meeting on Nuclear Reactor Thermal-Hydraulics (NURETH-17)
City of the publishing body: Xi'an, China
Date of the event: 3-8/09/2017
A. Abarca; R. Miró; Verdú Martín, Gumersindo Jesús; A. Soler
9. **Title:** IMPLEMENTATION OF GROENEVELD CRITICAL HEAT FLUX LOOK-UP TABLE IN FRAPTRAN AND ASSESSMENT AGAINST THE POST-DRYOUT EXPERIMENTS PERFORMED AT THE ROYAL INSTITUTE OF TECHNOLOGY
Name of the conference: 17th International Topical Meeting on Nuclear Reactor Thermal-Hydraulics (NURETH-17)
City of the publishing body: Xi'an, China
Date of the event: 3-8/09/2017
Abarca Giménez, Agustín; Hidalgo-García-Bermejo, Patricio; Miró Herrero, Rafael; Verdú Martín, Gumersindo Jesús
10. **Title:** INTEGRATED METHODOLOGY FOR THE ANALYSIS OF FUEL INTEGRITY IN HIGH BURNUP FUEL ASSEMBLIES USING CTF-UPVIS, FRAPCON AND FRAPTRAN CODES
Name of the conference: 17th International Topical Meeting on Nuclear Reactor Thermal-Hydraulics (NURETH-17)
City of the publishing body: Xi'an, China
Date of the event: 3-8/09/2017
Hidalgo-García-Bermejo, Patricio; Abarca Giménez, Agustín; Miró Herrero, Rafael; Verdú Martín, Gumersindo Jesús
11. **Title:** THERMAL-HYDRAULIC UNCERTAINTY AND SENSIBILITY ANALYSIS APPLIED TO HIGH BURNUP BWR FUEL ELEMENTS USING CTF-UPVIS AND DAKOTA
Name of the conference: 17th International Topical Meeting on Nuclear Reactor Thermal-Hydraulics (NURETH-17)
City of the publishing body: Xi'an, China
Date of the event: 3-8/09/2017
Hidalgo-García-Bermejo, Patricio; A. Abarca; Miró Herrero, Rafael; Verdú Martín, Gumersindo Jesús
12. **Title:** VALIDATION OF THE NEW MULTIPHASE CFD SOLVER BOILEULERFOAM FOR THE SIMULATION OF FLOW BOILING
Name of the conference: 17th International Topical Meeting on Nuclear Reactor Thermal-Hydraulics (NURETH-17)
City of the publishing body: Xi'an, China
Date of the event: 3-8/09/2017
Gomez-Zarzuola, Consuelo; A. Abarca; Miró Herrero, Rafael; Verdú Martín, Gumersindo Jesús
13. **Title:** PRACTICAL LEARNING FOR EXTERNAL BEAM RADIOTHERAPY TREATMENT PLANNING USING OPEN SOURCE PLANNERS
Name of the conference: VI International Conference on Education and Training in Radiological Protection (ETRAP 2017)
City of the publishing body: Valencia, Spain
Date of the event: 30/05/2017
Gomez-Zarzuola-Quel, Consuelo; Abarca Giménez, Agustín; Bernal-Garcia, Alvaro; Morató-Rafet, Sergio; A. Querol; Miró Herrero, Rafael; Verdú Martín, Gumersindo Jesús
14. **Title:** TEACHING COMPUTATIONAL CAPABILITY FOR RADIATION PROTECTION AND SHIELDING IN SCALE
Name of the conference: VI International Conference on Education and Training in Radiological Protection (ETRAP 2017)
City of the publishing body: Valencia, Spain
Date of the event: 30/05/2017
Gomez-Zarzuola-Quel, Consuelo; Abarca Giménez, Agustín; Bernal-Garcia, Alvaro; Morató-Rafet, Sergio; A. Querol; Miró Herrero, Rafael; Verdú Martín, Gumersindo Jesús

15. **Title:** TRAINING IN EXTERNAL DOSIMETRY CALCULATIONS WITH COMPUTATIONAL CODES
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City of the publishing body: Valencia, Spain
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 Gomez-Zarzuela-Quel, Consuelo; Abarca Giménez, Agustín; Bernal-Garcia, Alvaro; Morató-Rafet, Sergio; A. Querol; Miró Herrero, Rafael; Verdú Martín, Gumersindo Jesús

16. **Title:** Análisis dosimétrico del contenedor MAGNASTOR para combustible gastado de reactores PWR
Name of the conference: 42 Reunión Anual de la Sociedad Nuclear Española
City of the publishing body: Santander, España,
Date of the event: 30/09/2016
 A. Bernal; A. Abarca; Fernando Mengod; Miró Herrero Rafael; Verdú Martín Gumersindo Jesús. "Programa y sinopsis de las ponencias Nuclear España: Revista de la Sociedad Nuclear española".pp. 1 - 9. Senda Editorial

17. **Title:** Conversión del modelo termohidráulico-neutrónico del circuito primario de un PWR de RELAP5 a TRACE
Name of the conference: 42 Reunión Anual de la Sociedad Nuclear Española
City of the publishing body: Santander, España,
Date of the event: 30/09/2016
 F. López-Cerón Nieto; A. Abarca Giménez; Miró Herrero Rafael; Verdú Martín Gumersindo Jesús. "Programa y sinopsis de las ponencias Nuclear España: Revista de la Sociedad Nuclear española".pp. 1 - 8. Senda Editorial

18. **Title:** Entorno gráfico interactivo bajo la plataforma SNAP para el análisis de seguridad nuclear de transitorios termohidráulicos-neutrónicos 3D con el código TRACE/PARCS en centrales PWR-KWU
Name of the conference: 42 Reunión Anual de la Sociedad Nuclear Española
City of the publishing body: Santander, España,
Date of the event: 30/09/2016
 J.B. Martorell; R. Miró; C. Mesado; A. Abarca; T. Barrachina; G. Verdú. "Programa y sinopsis de las ponencias Nuclear España: Revista de la Sociedad Nuclear española".pp. 1 - 10. Senda Editorial

19. **Title:** Optimización del Multiplicador Bifásico de Fricción en el Código Termohidráulico de Subcanal CTF
Name of the conference: 42 Reunión Anual de la Sociedad Nuclear Española
City of the publishing body: Santander, España,
Date of the event: 30/09/2016
 A. Abarca; Miró Herrero Rafael; Verdú Martín Gumersindo Jesús; A. Soler; Concejal-Bermejo Alberto. "Programa y sinopsis de las ponencias Nuclear España: Revista de la Sociedad Nuclear española".pp. 1 - 10. Senda Editorial

20. **Title:** Verificación de los Modelos de Critical Heat Flux a Flujo Axial de Potencia no uniforme en el Código Termohidráulico de Subcanal CTF
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21. **Title:** CTF_developments_and_benchmarking_at_UPV_CTF-3
Name of the conference: Third COBRA-TF User's Group Meeting (CTF-3)
City of the publishing body: Villigen, Switzerland,
Date of the event: 03/06/2016
 A. Abarca. pp. 1 - 52.

22. **Title:** Dose rate analysis in a high capacity nuclear spent fuel storage system using the MAVRIC code
Name of the conference: Physics of Reactors conference. Unifying Theory and Experiments in the 21st Century (PHYSOR 2016)
City of the publishing body: Sun Valley, Idaho, USA,
Date of the event: 05/05/2016
 A. Bernal; A. Abarca; Miró Herrero Rafael; Verdú Martín Gumersindo Jesús. "Physics of Reactors 2016 (PHYSOR 2016): Unifying Theory and Experiments in the 21st Century".pp. 2825 - 2832. American Nuclear Society (ANS)

23. **Title:** Optimization of wall friction two-phase multiplier in the subchannel code CTF using the BFBT benchmark data
Name of the conference: International Congress on Advances in Nuclear Power Plants (ICAPP 2016)
City of the publishing body: San Francisco, USA,
Date of the event: 20/04/2016
 A. Abarca; Miró Herrero Rafael; Verdú Martín Gumersindo Jesús; A. Soler. "Proceedings ICAPP 2016".pp. 440 - 447. American Nuclear Society

24. **Title:** Análisis a Nivel de Varilla de Combustible de un Accidente de Inserción de Reactividad con el Código Acoplado Paralelo pCTF/PARCSv2.7
Name of the conference: 41 Reunión Anual de la Sociedad Nuclear Española
City of the publishing body: A Coruña, España,
Date of the event: 25/09/2015
Abarca Giménez Agustín; Ramos Peinado Enrique; Román Moltó José Enrique; Miró Herrero Rafael. "Ponencias de la 41 Reunión Anual de la SNE". pp. 133 - 133. Sociedad Nuclear Española (SNE)
25. **Title:** Análisis de estabilidad del reactor BWR Ringhals-I mediante los códigos acoplados TRACE/PARCS
Name of the conference: 41 Reunión Anual de la Sociedad Nuclear Española
City of the publishing body: A Coruña, España,
Date of the event: 25/09/2015
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26. **Title:** Análisis de Fluctuaciones Termo-Hidráulicas en un Reactor PWR con el Código Acoplado CTF/PARCSv2.7
Name of the conference: 41 Reunión Anual de la Sociedad Nuclear Española
City of the publishing body: A Coruña, España,
Date of the event: 25/09/2015
Abarca Giménez Agustín; Barrachina Celda Teresa María; Miró Herrero Rafael; Verdú Martín Gumersindo Jesús. "Ponencias de la 41 Reunión Anual de la SNE". pp. 86 - 87. Sociedad Nuclear Española (SNE)
27. **Title:** Validación del Código Acoplado CTF/PARCSv2.7 ante un Transitorio de Caída de Barra de Control
Name of the conference: 41 Reunión Anual de la Sociedad Nuclear Española
City of the publishing body: A Coruña, España,
Date of the event: 25/09/2015
Abarca Giménez Agustín; Barrachina Celda Teresa María; Miró Herrero Rafael; Verdú Martín Gumersindo Jesús. "Ponencias de la 41 Reunión Anual de la SNE". pp. 86 - 86. Sociedad Nuclear Española (SNE)
28. **Title:** Visualización en 3D de PARCS y COBRA-TF mediante el uso del paquete de herramientas VTK
Name of the conference: 41 Reunión Anual de la Sociedad Nuclear Española
City of the publishing body: A Coruña, España,
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Gomez-Zarzuola-Quel Consuelo; Abarca Giménez Agustín; Barrachina Celda Teresa María; Miró Herrero Rafael; Verdú Martín Gumersindo Jesús. "Ponencias de la 41 Reunión Anual de la SNE". pp. 132 - 132. Sociedad Nuclear Española (SNE)
29. **Title:** Ringhals-1 BWR Stability Analysis with TRACE/PARCS
Name of the conference: 24th International Conference Nuclear Energy for New Europe (NENE 2015)
City of the publishing body: Portoroz, Slovenia,
Date of the event: 17/09/2015
Gomez-Zarzuola-Quel Consuelo; Barrachina Celda Teresa María; Abarca Giménez Agustín; Miró Herrero Rafael; Verdú Martín Gumersindo Jesús. "Proceedings NENE 2015". pp. 1 - 9. Nuclear Society of Slovenia
30. **Title:** Pin Level Safety Analysis in a Reactivity Insertion Accident (RIA) Scenario with the Parallel Coupled Code pCTF/PARCSv2.7
Name of the conference: 2nd Frontiers in Computational Physics Conference: Energy Sciences
City of the publishing body: Zurich, Switzerland,
Date of the event: 05/06/2015
Abarca Giménez Agustín; Ramos Peinado Enrique; Román Moltó José Enrique; Miró Herrero Rafael. pp. 1 - 62.
31. **Title:** CTF Developments and Benchmarking at the UPV
Name of the conference: Second COBRA-TF user group meeting (CTF-2)
City of the publishing body: Madrid, Spain,
Date of the event: 21/05/2015
Abarca Giménez Agustín; Miró Herrero Rafael; Verdú Martín Gumersindo Jesús. pp. 1 - 35.
32. **Title:** Improvement of the Critical Heat Flux models of COBRA-TF and Assessment against the Post-Dryout Experiments Performed at the Royal Institute of Technology
Name of the conference: 10th International Topical Meeting on Nuclear Thermal-Hydraulics, Operation and Safety (NUTHOS-10)
City of the publishing body: Okinawa, Japan,
Date of the event: 18/12/2014
Abarca Giménez Agustín; Miró Herrero Rafael; Barrachina Celda Teresa María; Verdú Martín Gumersindo Jesús. "10th International Topical Meeting on Nuclear Thermal-Hydraulics, Operation and Safety (NUTHOS-10). Book of abstracts". pp. 1 - 12.

33. **Title:** Análisis de estabilidad de Peach Bottom NPP mediante TRACE/PARCS **Name of the conference:** 40 Reunión Anual de la Sociedad Nuclear Española **City of the publishing body:** Valencia, Spain,
Date of the event: 03/10/2014
Gomez-Zarzuela-Quel Consuelo; Agustín Abarca; Teresa Barrachina; Rafael Miró; Gumersindo Verdú. "Nuclear España. Nº 354". pp. 271 - 280. Sociedad Nuclear Española
34. **Title:** Determinación del nivel del agua del núcleo de reactores PWR usando la señal de detectores neutrónicos excore
Name of the conference: 40 Reunión Anual de la Sociedad Nuclear Española
City of the publishing body: Valencia, Spain,
Date of the event: 03/10/2014
Á. Bernal; A. Abarca; R. Miró; G. Verdú. "Nuclear España. Nº 354". pp. 80 - 90. Sociedad Nuclear Española
35. **Title:** Mejoras en la versión paralela del código termohidráulico de subcanal COBRA-TF
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City of the publishing body: Valencia, Spain,
Date of the event: 03/10/2014
Enrique Ramos; Agustín Abarca; José E. Roman; Rafael Miró. "Nuclear España. Nº 354". pp. 123 - 131. Sociedad Nuclear Española
36. **Title:** Validación del código subcanal CTF por medio de los resultados experimentales del benchmark PSBT de la OECD/NEA
Name of the conference: 40 Reunión Anual de la Sociedad Nuclear Española
City of the publishing body: Valencia, Spain,
Date of the event: 03/10/2014
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37. **Title:** Validación del Modelo de Crítico Heat Flux de COBRA-TF frente a los Experimentos de Post-Dryout realizados por el Royal Institute of Technology
Name of the conference: 40 Reunión Anual de la Sociedad Nuclear Española
City of the publishing body: Valencia, Spain,
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A. Abarca; Rafael Miró; T. Barrachina; G. Verdú. "Nuclear España. Nº 354". pp. 79 - 92. Sociedad Nuclear Española,
38. **Title:** Validation of the subchannel code CTF against the benchmark data of the OECD/NEA PSBT
Name of the conference: ANS Reactor Physics Topical Meeting (PHYSOR 2014). The Role of Reactor Physics towards a Sustainable Future
City of the publishing body: Kyoto, Japan,
Date of the event: 03/10/2014
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39. **Title:** Peach Bottom Low Flow Stability Analysis with TRACE/PARCS
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City of the publishing body: Portoroz, Slovenia,
Date of the event: 11/09/2014
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40. **Title:** Thermal-hydraulic Fluctuations in Trillo NPP with CTF/PARCSv2.7 Coupled Code
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Date of the event: 11/09/2014
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41. **Title:** Uncertainty Analysis in Reactor Physics Modelling in the Framework of UAM-Benchmark using SERPENT and SCALE-6.2 for Transport Calculations and TSUNAMI and SAMPLER for Cross Section Perturbation
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City of the publishing body: Portoroz, Slovenia,
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A. Labarile; Olmo-Juan Nicolás; Miró Herrero Rafael; Barrachina Celda Teresa María; Verdú Martín Gumersindo Jesús; Abarca Giménez Agustín. "23rd International Conference Nuclear Energy for New Europe - NENE 2014. Proceedings". pp. 1 - 16. Nuclear Society of Slovenia

42. **Title:** Current status of the CTF developments and benchmarking at the UPV **Name of the conference:** First COBRA-TF User Group Meeting (CTF-1) **City of the publishing body:** Garching by Munich, Germany, **Date of the event:** 16/05/2014
Abarca Giménez Agustín; Barrachina Celda Teresa María; Miró Herrero Rafael; Verdú Martín Gumersindo Jesús. pp. 1 - 53.
43. **Title:** Determination of the PWR core water level using EX-CORE detector signals **Name of the conference:** 6th International Nuclear Atlantic Conference (INAC 2013) **City of the publishing body:** Recife, Pernambuco, Brazil, **Date of the event:** 29/11/2013
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44. **Title:** High fidelity analysis of BWR fuel assembly with COBRA-TF/PARCS and TRACE codes **Name of the conference:** 6th International Nuclear Atlantic Conference (INAC 2013) **City of the publishing body:** Recife, Pernambuco, Brazil, **Date of the event:** 29/11/2013
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45. **Title:** A parallelization approach to the COBRA-TF thermal-hydraulic subchannel code **Name of the conference:** Joint International Conference on Supercomputing in Nuclear Applications and Monte Carlo 2013 (SNA + MC 2013) **City of the publishing body:** París, France, **Date of the event:** 31/10/2013
Ramos Peinado Enrique; Abarca Giménez Agustín; Román Moltó José Enrique; Miró Herrero Rafael. pp. 1 - 6.
46. **Title:** Paralelización mediante paso de mensajes del código COBRA-TF de simulación nuclear **Name of the conference:** XXIV Jornadas de Paralelismo **City of the publishing body:** Madrid, **Date of the event:** 20/09/2013
Ramos Peinado Enrique; Román Moltó José Enrique; Abarca Giménez Agustín; Miró Herrero Rafael. "Actas de las XXIV Jornadas de Paralelismo".pp. 371 - 376. Universidad Complutense de Madrid
47. **Title:** 5-1 Analysis of the OECD/NEA Oskarshamn-2 Stability Benchmark with RELAP5/PARCS v2.7 coupled codes **Name of the conference:** Second Workshop of the NEA/NRC Oskarshamn-2 BWR Stability Benchmark for Coupled Code Calculations and Uncertainty Analysis in Modelling (O2-1) **City of the publishing body:** Saclay, France, **Date of the event:** 13/04/2013
Abarca Giménez Agustín; Barrachina Celda Teresa María; Miró Herrero Rafael; Verdú Martín Gumersindo Jesús. pp. 1 - 37.
48. **Title:** Analysis of the OECD/NEA Oskarshamn-2 Stability Benchmark with RELAP5/PARCSv2.7 coupled codes. **Name of the conference:** 9th International Topical Meeting on Nuclear Thermal-Hydraulics, Operation and Safety (NUTHOS-9) **City of the publishing body:** Kaohsiung, Taiwan, **Date of the event:** 13/09/2012
Garcia-Fenoll Marina; Barrachina Celda Teresa María; Abarca Giménez Agustín; Miró Herrero Rafael; Ginestar Peiro Damián; Verdú Martín Gumersindo Jesús. "9th International Topical Meeting on Nuclear Thermal-Hydraulics, Operation and Safety (NUTHOS-9)". pp. 117 - 117. Chung-Hwa Nuclear Society
49. **Title:** Methodology to resolve the transport equation with the discrete ordinates code TORT into KRITZ reactor **Name of the conference:** Mathematical Modelling in Engineering & Human Behaviour 2012 **City of the publishing body:** Valencia, España, **Date of the event:** 07/09/2012
Á. Bernal; Abarca Giménez Agustín; Miró Herrero Rafael; Barrachina Celda Teresa María; Verdú Martín Gumersindo Jesús. "Mathematical Modelling in Engineering & Human Behaviour 2012: Abstracts".pp. 60 - 60. Instituto Universitario de Matemática Multidisciplinar. Universidad Politécnica de Valencia
50. **Title:** Paralelization of thermalhydraulic sub-channel code COBRA-TF using Krylov methods of the PETSc toolkit **Name of the conference:** Mathematical Modelling in Engineering & Human Behaviour 2012 **City of the publishing body:** Valencia, España, **Date of the event:** 07/09/2012
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51. **Title:** Development of a new methodology for stability analysis in BWR NPP
Name of the conference: American Nuclear Society (ANS) Reactor Physics Topical Meeting (PHYSOR 2012). Advances in Reactor Physics.
City of the publishing body: Knoxville, USA,
Date of the event: 20/04/2012
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