

# CURRICULUM VITAE

(Updated October 2019)

## Juan Carlos Ferreri



- Member, National Academy of Sciences of Buenos Aires (ANCBA), 2009–, Argentina
- Secretary (2011-2015), Treasurer (2015-2017), President (2017– ) ANCBA
- Senior 2004 Award to Research, Professional and Teaching Achievements in Argentina, Argentinean Association for Computational Mechanics (AMCA), Argentina
- Past Member, CONICET, Argentina
- Member, Academic and Research Area, Universidad Nacional Guillermo Brown (UNaB), Argentina, October 2017–
- Listed in the Annual Editions of Who's Who in the World, 2012–

**Date of birth** 11 February 1944

**Married, three sons**

**Nationality** Argentine

**Academic Qualifications:** 1967, Aeronautical Engineer, Univ. de La Plata (UNLP), Argentina

**Job Status:** Retired

**e-mail:** [jcferreri@gmail.com](mailto:jcferreri@gmail.com)

## Career

1964-67 Student Teaching Assistant, Materials Testing, UNLP.

1968-74 Graduate Teaching Assistant and Assistant Lecturer, Fluid Mechanics, Department of Aeronautical Eng., UNLP

1974-78 Deputy Head, Department of Thermodynamics, National Institute of Industrial Technology (INTI), Argentina

1976-78 Assistant (Adjunto) Researcher, CONICET

1978-12 Senior (Independiente) Researcher, CONICET, retired 2012

1979-79 Assistant Professor, Univ. of Buenos Aires (UBA)

1978-80 Free Lance Consultant Engineer in Fluid Mechanics

1980-80 Professor, Hydraulic Eng. Department, UBA

1984-94 Researcher, National Atomic Energy Commission (CNEA), Radiological Protection and Safety Branch, Argentina

1984-85 Professor, Chemical Eng. Department, UBA

1987-87 Professor, Hydraulic Eng. Department, UNLP

1995-96 Head, Modeling Group, Scientific Support Branch, ENREN, Argentina

1996-01 Project Leader, Scientific Support Branch, NRA, Argentina

2001-03 Senior Staff Member, Nuclear and Radiological Safety Branch, NRA, Argentina

2004-10 Senior Staff Member, Scientific Support Branch, NRA, Argentina

2004-10 Head, Scientific and Technical Support Branch, NRA, Argentina, since April 4<sup>th</sup>, 2004 to August 1<sup>st</sup>, 2010

2005-10 Head, Environmental, Calibration and Biological Laboratories Quality Accreditation Project under ISO-17025/2005, NRA, up to August 1<sup>st</sup>, 2010

Accreditations obtained: Radiation Measurements Labs.: Gamma spectrometry Laboratory; U in Water by Direct Fluorimetry and Kinetic Phosphorimetry Analysis (KPA), H<sup>3</sup> in water; Radiation Measurement and Instruments Calibration Laboratory and Cytogenetic Assays Laboratory

2009- Member, National Academy of Sciences of Buenos Aires (ANCBA), Argentina

2010-11 Senior Staff Member, NRA, Argentina, since August 1<sup>st</sup>, retired December 2011

2011-17 Advisor Emeritus, NRA, Argentina, December 1<sup>st</sup>, 2011-2017

2011-15 Academic Secretary, ANCBA

2012-13 Part-time Researcher, Universidad Argentina de la Empresa, INTEC, Argentina

2014-17 Scientific Advisor, ESSS Argentina (for ANSYS Fluid Dynamics codes)

2015-17 Treasurer, ANCBA

2017- President, ANCBA

## Current Research Interests and Experience

- R & D in Numerical Methods in Fluid Mechanics and Heat Transfer
- R & D in macrocodes for the prediction of the Thermal-hydraulic behavior of Nuclear Power Plants and nuclear systems
- Application of CFD codes in Nuclear Engineering

## Publications

See attached list

## Professional Membership

Past Member and President, Argentine Committee for Heat and Mass Transfer  
Past Member, Argentine Society for Radiation Protection  
Past Member, New York Academy of Sciences

## University (\*) and Post Graduate (#) Courses Taught

- Fluid Mechanics (\*), UNLP, 1968-1974.
- Finite-difference Techniques (#), C.I.O, CONICET, 1978
- Computational Techniques for the Numerical Solution of Partial Differential Equations (#), UBA, 1979
- Computational Techniques in Fluid Mechanics, Finite-Differences (#), in collaboration, UBA, 1980
- Computational Fluid Dynamics - Finite-Differences (#), Nuclear Engineering, Inst. Balseiro, Argentina, 1983
- Finite-Difference Techniques for the Numerical Solution of Governing Equations (\*), UBA, 1984
- Finite-Difference Techniques for the Numerical Solution of Partial-Differential Equations - Numerical Modeling (#), CISM, RILEM, Nat. Inst. Industrial Tech., 1986
- Finite-Differences module in Computational Mechanics (\*), Nuclear Engineering, Inst. Balseiro, 1987
- An Introduction to Computational Fluid Dynamics (\*), UNLP, 1987
- Module on Numerical Methods I (\*), International School on Physics and Mechanics of Fluids, Centro Internacional de Física and Facultad Ciencias Exactas (UNCPBA), Argentina, 1989.
- Module on Numerical Methods in Heat and Mass Transfer: Finite-Difference Methods (#), ECAMAT'92, CONICET-FCE UNCPBA-CNEA, Tandil, 1992.
- Invited Lecturer, Course on Natural Circulation Phenomena and Modeling in Water-Cooled Reactors and Reliability of Passive Systems (#),
  - IAEA-ICTP, Trieste, Italy, June 25-29, **2007**;
  - IAEA-Idaho National Laboratory, Idaho Falls, USA, May 19-23, **2008**
  - IAEA-ICTP, Trieste, Italy, June 23-27, **2008**
  - IAEA-UNIFI-GRNSPG, Italy, Pisa, June 22-26, **2009**
  - IAEA-ICTP, Trieste, Italy, May 16-21, **2010**
  - IAEA-Harbin Univ. of Engineering, People's Republic of China, July 11-15, **2011**
  - NINE/NRGSPG Course on Natural Circulation in Advanced Water-cooled Nuclear Reactors, CNPE Co. Ltd, Beijing, People's Republic of China, 27 to 31 August **2012**
- Invited Lecturer, PREFALC (#) [Univ. Rennes 1-2, Univ. Nac. Trujillo, Perú, UBA, Argentina], International Magister in South American Archaeology (modelization, experimentation and analytical techniques),  
June 22-27, Trujillo Perú, **2015**; November 14-18, Rennes, **2015** and July 31-August 6, Trujillo, Perú, **2017**

## Committees and Duties

### At the National Academy of Sciences of Buenos Aires

- Fellow Member, National Academy of Sciences of Buenos Aires, July 27, formally incorporated in November 11<sup>th</sup>, **2009-to date**
- Member, Award Committee, jointly with Sergio Idelsohn and Pablo Jakovkis, National Academy of Sciences of Buenos Aires “*Stimulus*” Award on “Novel Methods for the Simulation of Fluid Flows”, **2010**
- Member, Award Committee, jointly with Acad. Ing. Luis De Vedia and Dr. G. Sanchez Sarmiento, National Academy of Sciences of Buenos Aires Medal “*Ing. Pedro Vicién Award for Outstanding Achievements in Mechanical Engineering in Argentina*”, **2010**
- Acting Academic Secretary and Member of Executive Board, ANCBA, April 1<sup>st</sup>, **2011-2015**
- Academic Director, jointly with Dr. Mauricio Chocrón, Section for Studies on Heat and Mass Transfer (ECAMAT from its Spanish acronym), Institute for Studies in Science and Technology, ANCBA, July **2014-to date**
- Member, Award Committee, Section Engineering, Architecture and Arts, National Academy of Sciences of Buenos Aires, category “Consagración”, **2014**
- Acting Treasurer and Member of Executive Board, ANCBA, March 16<sup>th</sup>, **2015-2017**
- Member, Award Committee, jointly with Acad. Ing. Luis De Vedia and Dr. Mario J. Solari, National Academy of Sciences of Buenos Aires Medal “*Ing. Pedro Vicién Award for Outstanding Achievements in Mechanical Engineering in Argentina*”, **2016**
- Acting President, ANCBA, March 27<sup>th</sup>, **2017-to date**

### At the University

- Member, Advisory Committee for Nuclear Engineering Professors and Teaching Assistants Promotion, Instituto Balseiro, Univ. de Cuyo and CNEA, Argentina, May **1989**, July **1992**, July **1995** and June **2003** for Academic Achievements Evaluation of Nuclear Engineering Professors
- Member, Qualification and Promotion Staff, Professors Chairs, Instituto Balseiro, Univ. de Cuyo and CNEA, Argentina, **2004, 2008, 2017**
- Member, Dissertation Committee for PhD and MSc Theses in Nuclear and Chemical Engineering, Physics and Meteorology, in relation to Fluid Dynamics, Numerical Modeling and Heat and Mass Transfer, **1984 - to date.**  
**See attached list**
- Member, Examination Staff, Full Professor and Associate Professors Chairs in Aerodynamics and Fluid Mechanics, Engineering College, Aeronautical Engineering Department, UNLP, **1998, 2000, 2003, 2005**
- External Member, Dissertation Committee on Nuclear Engineering Graduation, University of Pisa, July **2003**
- Member, Advisory Staff for Peruilh’s Doctorate Fellowships Contest, UBA, College of Engineering, December **2003**
- Member, Examination Staff, Professors Chairs on Modeling, Mechanics and Thermal-hydraulics Academic Areas, Universidad Argentina de la Empresa (UADE), Argentina, December 2004, December **2005.**
- Peer reviewer, MSc. Curricula on Applied Computing in Science and Engineering, Univ. Del Litoral, **2006**
- Member, Advisory Committee on PhD Theses, UBA, College of Engineering, **2006-2016**
- Member, Advisory Committee, Categorization of Researchers in Science and Technology, Universidad Argentina de la Empresa (UADE), Argentina, September **2010**, April **2012**
- Member, Advisory Committee, R&D Projects Evaluation, Universidad Argentina de la Empresa (UADE), Argentina, April **2011.**

- Member, Advisory Committee, designation of Director of “Centro Tecnológico Aeroespacial”, Facultad de Ingeniería, UNLP, **October 2016**.
- Member, Coordination and Organization Committee, Academic and Research Area, Universidad Nacional Guillermo Brown (UNaB), Argentina, **October 2017-**
- Member, Evaluation Committee, Call for Research Projects SIIP 2019, UNCUYO, 13-15 December 2018

### **At the Nuclear Industry R&D and Regulation Institutions**

- Member, IAEA Specialist Meeting on Experimental Aspects and Numerical Modeling of Small LOCAs, Budapest, Hungary, **1983**
- Member, IAEA Technical Review Committee on Siting, Vienna, Austria, June, **1985**
- President, Advisory Committee on Graduates and Technicians Grading, Safety and Radiological Protection Branch, National Atomic Energy Commission, Argentina, **1985-1986**
- Member, Joint Advisory Committee on Graduates, Technicians and Administrative Personnel Grading, Radiological Protection and Safety Branch, National Atomic Energy Commission, Argentina, **1985-1986**
- Member, Advisory Committee on Publication Policy, National Atomic Energy Commission, Argentina, **1991**
- Member, Publications Committee, National Atomic Energy Commission, Argentina, **1992**
- Technical Counterpart, National Atomic Energy Commission - IAEA Agreement ARG/9/006 on Probabilistic Safety Assessment of Nuclear Power Plants, Phase II, Severe Accidents, **1991-1994** (US\$ 15,000 in 1991-92, US\$ 50,000 in 1992-93 and US\$ 75.000 in 1994, plus training fellowships and expert visits)

Has been the Argentine counter-part of the following IAEA International experts:

- On Thermal-hydraulics: Dr. Wolfgang Wulff, Brookhaven Nat. Lab., USA (twice)
- On Thermal-hydraulics: Prof. Richard Lahey, Reenslaer Polytechnic Inst., USA
- On Severe Accidents: Dr. Richard Gonzalez, Inst. Prot. Sec. Nuc., France
- On Severe Accidents: Prof. Francesco Oriolo, Univ. of Pisa, Italy
- Principal Researcher, CNEA/ARN - IAEA, Agreement 7285/CF on the Safety of Thermal Behavior of Uranium Hexafluoride (UF<sub>6</sub>) Transport Packages in Fires, December **1992-1997**
- Member, Publications Committee, National Board of Nuclear Regulation, **1995-1998**
- Designated participant, IAEA Specialists Meeting on "User qualification Effects on and User Qualification for the Safety Analysis of Nuclear Power Plants, Vienna, Austria, August 30<sup>th</sup> to September 3<sup>rd</sup>, **1998**
- Technical Counterpart, Thermal-Hydraulics Code Applications and Maintenance Program (CAMP), in the framework of the US Nuclear Regulatory Commission - National Board of Nuclear Regulation Agreement and continuing with Nuclear Regulatory Authority, **1995-2002, June 2006-March 2009**

Have attended the following CAMP Meetings as Designated Representative:

- o Helsinki, Finland, May **1995**
- o Santa Fe, New Mexico, USA, October **1996**
- o Budapest, Hungary, May **1997**
- o Washington, USA, October **1997**
- o Washington, USA, October **1998**
- o Bariloche, Argentina, (Member, Organizing Committee), April 27-30, **1999**
- o Palermo, Italy, April **2000**
- o Annapolis, USA, October **2000**
- o Prague, Czech Republic, April **2001**
- o Bratislava, Slovak Republic, May **2002**
- o Stockholm, Sweden, **June 2010**
- o Bariloche, Argentina, (Member, Organizing Committee), April 27-29, **2011**
- o Philadelphia, USA, November **2011**
- Has been the Nuclear Regulatory Authority counterpart of the following international experts: Prof. Francesco D'Auria, Pisa University, Italy, **2000**

- Dr. Walter Ambrosini, Pisa University, Italy, **1998**
- President, Advisory Committee on Personnel Discipline, National Board of Nuclear Regulation, 1996-1998
- Designated Technical Coordinator: agreement for the exchange of technical information and co-operation in Nuclear Safety and Radiation Protection matters between the National Agency for the Protection of the Environment (ANPA) of Italy and the Nuclear Regulatory Authority (ARN) of Argentina, **2000-2004**
- Designated Technical Coordinator: agreement for Research and Development in Radiological and Nuclear Safety in the Regulatory Context, The University of Pisa, the Nuclear Regulatory Authority (NRA) of Argentina and the Universidad del Salvador, through the International Institute of Studies on the Government and Society (IIEFGS), **2001**
- Coordinator, jointly with Prof. F. D'Auria, of Energy Department, (IIEFGS), **2002-2006**
- Member of Scientific Committee, Lecturer and Organizer, Seminar and training on Scaling, UNcertainty and **3D COuPled** code calculations in Nuclear Technology, UADE, Buenos Aires, October 2-13, **2006**
- Head, Scientific and Technical Support Branch, NRA, Argentina, **April 2004-September 2010**

#### **At Scientific Journals**

- Reviewer, Applied Mechanics Reviews, ASME, **1972-83**
- Member, Pub. Advisory Committee, Latin American J. of Heat and Mass Transfer, **1977-85**
- Reviewer, Latin American Journal of Heat and Mass Transfer, **1977-87**
- Reviewer, Latin American Journal of Chemical Eng. and Applied Chemistry, **1977-84**
- Reviewer, International Journal of Heat and Technology, **2001**
- Member of the Editorial Committee and Reviewer, Latin American Applied Research, **1988-1998**, reviewer **1998-2012**
- Guest Editor jointly with F. D'Auria, Int. J. Heat and Technology, Special Issue dedicated to Fluidos-2001, **21, 2003**
- Associate Editor, Science and Technology of Nuclear Installations, Dec. **2006-2016**
- Reviewer, Nuclear Engineering and Design, **2008-to date**
- Reviewer, Int. J. Numerical Methods in Engineering, **2009**
- Reviewer, Mathematics and Computers in Simulation, **2010**
- Lead Guest Editor, Science and Technology of Nuclear Installations, Special Issue on "Nuclear Activities in Argentina – 2010", August 1<sup>st</sup>, **2010**
- Reviewer, Progress in Nuclear Energy, **2013-2018**
- Reviewer, Annals of Nuclear Energy, **2014-2015**
- Reviewer, Athens Journal of Technology & Engineering, ATINER, **2016-**

#### **At Scientific and Technical Institutions**

- Member, Executive Staff, Argentine Committee for Heat and Mass Transfer, CONICET, Argentina, **1977-1985**
  - Member, Advisory Committee on Publication Policy, CONICET, Argentina, **1985**
  - President, Executive Staff, Argentine Committee for Heat and Mass Transfer, CONICET, Argentina, Oct. **1988-1998**
  - Organizer of Seminars on Computational Methods in Heat and Mass Transfer for the Argentine Committee on Heat and Mass Transfer, **1977-1996**
  - Member, Advisory Committee on Physical Sciences, Comisión de Investigaciones Científicas, Provincia de Buenos Aires, Argentina, May **1989-1999**
  - External Member, Project and Personnel Evaluation Staff, ANPCyT (National Agency for the Promotion of Science and Technology) and National Research Council (CONICET), **1998-2011**. *Ibidem* for UBA, Engineering College, **2002-2003**
  - Has supervised and evaluated PhD Students and Scientific and Technical Personnel in various Institutions and participated in numerous Examinations Committees for PhD and MSc
- See attached list**

- Consultant Peer to National Commission for University Evaluation and Accreditation (CONEAU, Engineering Degrees, in charge of Mechanical Engineering, **2002 and 2003**)
- Member and Alternate Coordinator, Advisory Committee on Civil, Mechanical, Electrical and Related Engineering Sciences, CONICET, Argentina, February **2005**-December **2006**.
- Member, Evaluation Committee, STEM Exhibition Fair, Fundación Ciencia Joven, Nov. 5, **2018**
- Member, Consultant Peer, PICT 2018 – FONCyT, ANCyT, **2018**

#### **At Professional Associations**

- Member, Executive Staff, Society for Computational Methods in Engineering, Porto Alegre, Brazil, **1979-1981**
- Member, Executive Committee, Argentine Society for Computational Mechanics, Argentina, **1985-1986**
- Member, Advisory Committee on Meetings Organization, AMCA, Argentina, **1995-2003**

#### **At Scientific Meetings**

- Member, Organizing Committee, Latin American Symposium on Heat and Mass Transfer, La Plata, Argentina, **1982**
- Member, Organizing Committee, International School on Physics and Mechanics of Fluids, Centro Internacional de Física and Facultad Ciencias Exactas (UNCPBA), Argentina, 1989
- Organizer, jointly with Dr. R. Gratton, First Postgraduate School in Heat and Mass Transfer, CONICET, Facultad de Ciencias Exactas (UNCPBA) and National Atomic Energy Commission, Tandil, Argentina, 3-12 Sept., **1992**
- Member of the Scientific Committee, International Conference on: "New Trends in Nuclear Systems Thermal-hydraulics", Pisa, Italy, **1994**
- Member, Organizing Committee, Fourth World Conference on Computational Mechanics, Buenos Aires, Argentina, June 29-July 2, **1998**
- Member, Scientific Committee of Eurotherm Seminar No 63, Genoa, Italy, Sept. 6-8, **1999**
- Member, Program Committee, International Conference on Nuclear Energy in Central Europe 2000, Bled, Slovenia, September 11-14, **2000**
- Member of Organizing Committee/Scientific Committee, Fluidos-2001 - VII International Seminar on Recent Advances in Fluid Mechanics, Physics of Fluids and Associated Complex Systems, held in Buenos Aires, 17-19 October **2001**; has been member of the Honorary/Scientific Committee of all the Meetings **since 1989**.
- Member of Organizing Committee, First South-American Congress on Computational Mechanics, MECOM-2002, October **2002**, Santa Fe, Argentina
- Honorary President, jointly with Sergio Idelsohn, MECOM 2005, VIII Argentinean Congress on Computational Mechanics, November 16-18, **2005**, Buenos Aires, Argentina
- Member, Scientific Committee, INMAT-2008, FI-UBA, Buenos Aires, Argentina, **2008**
- Member, Scientific Committee, ENS TOPSAFE, Dubrovnik, Croatia, October 1-3, **2008**
- Member, Technical Program Committee, NURETH 15, Pisa, Italy, May **2013**
- Students Session Chair/Co-Chair, sessions SS-S1.5; SS-S3.4 (2); SS-S1 (1, 2, 5); SS-S4 (2); SS-S5, NURETH 15, Pisa, Italy, May **2013**
- Students Awards Committee Member, NURETH 15, Pisa, Italy, May **2013**
- Member, Honorary Committee, FLUIDOS 2014 - XIII Recent Advances in Physics of Fluids and its Applications, Tandil, Argentina, 5-7 November **2014**
- Chairman, MS 8.5 CFD applications in Nuclear Engineering and Technology, 1<sup>st</sup> PANACM, Buenos Aires, 27-29 April **2015**
- Member, Steering Committee, Best Estimate Plus Uncertainty International Conference (BEPU), May 13-19, Lucca, Italy, **2018**

## Honors

- Nominated, "Award to Excellence", Rotary Club, **1992 and 1993**
- Faculty Member, Institute for Nuclear Studies (IdEN), Ezeiza Atomic Centre, National Atomic Energy Commission, Argentina, **1996-2004**
- Member, Research and Development Institute, National Academy of Sciences of Buenos Aires; Subjects: Nuclear Safety, Fluid Dynamics and Numerical Methods, Argentina, August 4, **2003-**
- Senior 2004 Award to Research, Professional and Teaching Achievements in Argentina, Argentinean Association for Computational Mechanics (AMCA), received at XIV ENIEF, Congress on Numerical Methods and their Applications, Bariloche, Argentina, November 8-11, **2004**
- Member, Award Committee, AMCA, **2006**
- Selected and listed, 30th Pearl Anniversary Edition of Who's Who in the World, **2012-** and continuing

## Seminars, Conferences and Visits

- Tens of Invited Conferences (**IC**)/Seminars (**IS**) on Nuclear Engineering, Computational Fluid Dynamics and Heat Transfer in Argentina and abroad, among them:
  - I. The Study of Human Behavior in Relation to Fire in Archaeology: New data and Methodologies for Understanding Prehistoric Fire Structures, **IC** (presented by R.J. March), XIII U.I.S.P.P. Congress, The Lower and Middle Paleolithic, Sept. 8-14, **1996**, Forli, Italy
  - II. On the numerics of thermal-hydraulic system codes: testing their inherent properties, **IC**, Fourth World Conference on Computational Mechanics, Buenos Aires, Argentina, June 29-July 2, **1998**
  - III. Single-phase natural circulation in simple circuits -reflections on its numerical simulation, **IC**, Eurotherm Seminar No 63, Genoa, Italy, Sept. 6-8, **1999**
  - IV. On the Computation of the Stability Margins of 1D, Single-Phase, Natural Circulation Flows, **IC**, First South-American Congress on Computational Mechanics, MECOM-2002, October **2002**, Santa Fe, Argentina
  - V. Searching in Time: On the Inference of the Minimum Time of Burning in Archaeological Hearths, Seminars to University of Rennes and Pincevent Archaeological Site, July **2003**
  - VI. On the Construction of Natural Circulation Maps for the CNA-I PHWR NPP, **IS**, Seminar to University of Pisa, DIMNP, July **2003**
  - VII. Computational Methods and Engineering Judgment in Thermal Convection, **IC**, Research and Development Institute, National Academy of Sciences of Buenos Aires, August 26, **2003**
  - VIII. On Natural Circulation in the CNA-I with Loss of Mass Inventory, **IC**, VII Congreso Nacional de Protección Radiológica y Seguridad Nuclear, Buenos Aires, Argentina, October 31, **2003**
  - IX. Natural circulation tests in PSB: Analysis of Experimental Data and the Scaling Issue, TACIS 30303 Working Group Meeting, **IS**, Pisa, Italy, March 29-31, **2004**
  - X. Natural circulation tests in PSB: Preliminary simulation results of the NC-1 Test 2 Natural Circulation experiment using RELAP5/Mod3.3, **IS**, OECD Meeting, Pisa, Italy, April 1-2, **2004**
  - XI. The ubiquity of Ludwig Prandtl, **IC**, Research and Development Institute, National Academia Nacional de Ciencias de Buenos Aires (ANCBA), October 26, **2006**, **published 2008** (in Spanish), by ANCBA, as "Boundary Layer 100 years after Ludwig Prandtl", **92**, pp. 11-27, ISBN-13: 978-987-537-079-1,
  - XII. Computational Fluid Dynamic Fundamentals, International Seminar and training on Scaling, UNcertainty and 3D COuPled code calculations in Nuclear Technology (**SUNCOP**), **IC**, UADE, Buenos Aires, October 2-13, **2006**
  - XIII. Computational Fluid Dynamics Trends in Nuclear Safety, **IS**, Fluidos 2006, Mendoza, November 2-4, **2006**
  - XIV. Radiation and Regulation (of ionizing radiation of nuclear origin), **IC**, Research and Development Institute, Academia Nacional de Ciencias de Buenos Aires, December 5<sup>th</sup>, **2007**
  - XV. CFD Techniques in Natural Circulation: reflections on their use, **IC**, Fluidos-2008, Santa Fe, November 19-21, **2008**
  - XVI. Migration of radionuclides in fractured, porous media, **IS**, INRIA, France, October 13<sup>th</sup>, **2009**
  - XVII. Computation of Unstable Flows using System Codes, **IC**, Forum of Sys-TH-Codes in Nuclear Reactors Thermal-Hydraulics (FONESYS), GRNSPG, Univ. of Pisa, May 13-14, **2010**

- XVIII.** Risk Perception, Communication at Plenary Session, ANCBA, August 31<sup>st</sup>, **2010**
- XIX.** [04a] Dealing with the ill-posedness problem: basic aspects; and [07a] Computation of Unstable Flow Problems using Thermal Hydraulic System Codes, **IS**, in Seminar on “Advanced Modeling and Numerical Strategies for Two-Phase Flow in Nuclear Systems”, GRNSPG, Univ. of Pisa, 5-7 July **2011**
- XX.** Natural Circulation Characterization of the CNA-II PHWR based on flow maps using RELAP5/MOD3.3P4 (**IS**), A.I. Lazarte and J.C. Ferreri, presented by JCF, Fall-CAMP-2011 Meeting, Philadelphia, USA, November 7-9, **2011**
- XXI.** On two parallel channel systems and RELAP5 simulations (**IS**), A.I. Lazarte and J.C. Ferreri, Presented by JCF, GRNSPG, Univ. of Pisa, June 19<sup>th</sup>, **2012**
- XXII.** Current licensing activities in the ARN using system codes (**IS**), A.I. Lazarte and J.C. Ferreri, Presented by JCF, Spring 2013 CAMP Meeting, Pisa, Italy, May 8-10, **2013**
- XXIII.** Criteria for CFD applications in Nuclear Engineering (**IC**), 2014 ESSS Conference & ANSYS Users Meeting, Buenos Aires, May 14, **2014**
- XXIV.** CAMAT: history, legacy and heirs (**IS**), 1<sup>st</sup> Seminar of ECAMAT, ANCBA, August 27, **2014**
- XXV.** On the role of CFD in the licensing of nuclear installations (**IC**), XXI ENIEF, San Carlos de Bariloche, September 23-26, **2014**, see DOI: 10.13140/RG.2.1.4957.8725
- XXVI.** IAEA & UF6 & FEM & paper & ...: reminiscences of Fernando’s stay at the CAE (**IC**), Special Session to honor Fernando Basombrío, XXI ENIEF, San Carlos de Bariloche, September 23-26, **2014**
- XXVII.** On the use of advanced computational techniques and the regulatory restrictions (**IC**), Communication at Plenary Session, ANCBA, March 30<sup>th</sup>, **2015**, see DOI: 10.13140/RG.2.1.4957.8725
- XXVIII.** Venturing in an unpredictable context (**IC**), Inter-Academies Meeting, Buenos Aires, Argentina, October 31, **2017**
- XXIX.** The role of National Academies on Communities Development (**IC**), Panel and Round Table, Government of Tucumán, August 23, **2018**
- XXX.** Sobre el uso de técnicas computacionales avanzadas y las restricciones regulatorias (**IC**), UTN-Facultad Regional Delta, August 29, **2019**

- Hosted by Instituto Balseiro, Argentina: Summer stays, **1985, 1987 and 1993**.
- Granted by the IAEA: Università degli Studi di Pisa, Dipartimento Construzione Meccaniche e Nucleare, PISA, Italy, October/December **1994**.
- Hosted by CNRS, France, Laboratoire de Ethnologie Prehistorique, Paris, December **1994**.
- Hosted by the University of Calgary, Dep. of Mech. Engineering: October **1996**.
- Hosted by DIMNP, University of Pisa, Visiting Researcher, **1995-2003**, on a yearly basis.
- Hosted by University of Rennes 1, 2 and Nantes, France, Invited Professor, June-July **2003**
- Hosted by DIMNP, University of Pisa, Visiting researcher, TACIS Project 30303, April-March/**2004**, October-November/**2005**, June/**2007** and June-July/**2008**.
- Hosted by DIMNP, University of Pisa, Visiting researcher, GRNSPG, June **2009**
- Hosted by INRIA, University of Rennes 1, Visiting Scientist, October 9-17, **2009**
- Hosted by DIMNP, University of Pisa, Visiting researcher, GRNSPG, May **2010**
- Hosted by DIMNP, University of Pisa, Visiting researcher, GRNSPG, June-July **2011**
- Hosted by DIMNP, University of Pisa, Visiting researcher, GRNSPG, June and August **2012**
- Hosted by University of Rennes 1, Visiting Scientist, September **2012**
- Hosted by DIMNP, University of Pisa, Visiting researcher, GRNSPG, February-March **2013**
- Hosted by Organizing Committee NURETH-15 and GRNSPG, Pisa, May 9-23, **2013**
- Hosted by DICl, University of Pisa, Visiting researcher, GRNSPG, July **2015**



## Publications (in English, unless explicitly stated, see also Other at end of section)

### Archive Journals, Conferences (peer reviewed) and Seminar Proceedings

1. 2016a. A.I. Lazarte and J.C. Ferreri, J.C., Analytical and Computational Analysis of Flow Splitting in Multiple, Parallel Channels Systems (*expanded, updated and revised Archival Journal version of 2014b*), World Journal of Nuclear Science and Technology, 6, 170-190, 2016
2. 2014a, Calculation of pressure drop in a preliminary design of nuclear fuel spacer grids in an integral PWR using CFD methods, J.D. Jiménez Díaz, A.I. Lazarte and J.C. Ferreri, Mecánica Computacional Vol XXXIII, pp. 2845-2855, G. Bertolino, M. Cantero, M. Storti and Federico Teruel (Eds.), San Carlos de Bariloche, 23-26 September 2014
3. 2014b, An extended analysis for flow splitting in multiple, parallel-boiling channels systems, A.I. Lazarte and J.C. Ferreri, Mecánica Computacional Vol XXXIII, pp. 407-428, G. Bertolino, M. Cantero, M. Storti and Federico Teruel (Eds.), San Carlos de Bariloche, 23-26 September 2014
4. 2014c, A Verification Problem for Thermal Hydraulics Systems Codes dealing with Twin, Parallel-Boiling and Inverted U-Tubes Condensing Channels (*expanded, updated and revised Archival Journal version of 2013a*), A.I. Lazarte and J.C. Ferreri, Annals of Nuclear Energy, **68**, pp. 163-171, 2014
5. 2013a, A Verification Problem for Thermal-Hydraulics Systems Codes Dealing with Twin-Parallel-Boiling Channels, A.I. Lazarte and J.C. Ferreri, ENIEF-2013, Mecánica Computacional Vol XXXII, C.G. García Garino, A.E. Mirasso, M.A. Storti and M.E. Tornello (Eds.), pp. 1799-1811, Mendoza, Argentina, November 19-22, 2013
6. 2013b, Flow Splitting and Oscillations in Parallel Channels Simulated with System Codes, A.I. Lazarte and J.C. Ferreri, paper NURETH-355, 15th International Topical Meeting on Nuclear Reactor Thermalhydraulics, Pisa, Italy, May 12-15, 2013
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### **R & D Reports to Contractors or Institutions (In Spanish unless explicitly stated)**

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2. Loss of Efficiency in Propelling Nozzles due to the Effects of Viscosity, J.C. Ferreri, Report to the Argentine Air Force, Contract FA-7/68, 1968.
3. Variation of the Efficiency of Propelling Nozzles due to the Effects of Throat Mass Injection, J.C. Ferreri, Report to the Argentine Air Force, Contract FA-14/69, 1970.
4. Mass Entrainment by Turbulent Flows, J.C. Ferreri, Report to the Argentine Air Force, Contract FA-22/70, 1972.
5. Experimental Study of the Characteristics of High-Pressure Paint Spraying Nozzles, J.C. Ferreri and L. Bassani, Report to Morwin S.A., 1975.
6. Experimental Determination of the Rheological Properties of Paints, Part I, J.C. Ferreri, Report to Morwin S.A., 1975.
7. Numerical Prediction of the Circulation of Coastal Waters in the Coast of Buenos Aires, J.C. Ferreri, Report to COPUAP, Buenos Aires, Argentina, 1980
8. Numerical Prediction of Harbor Resonance to Long Waves for a Deep-Waters Port, J.C. Ferreri, Report to COPUAP, Buenos Aires, Argentina, 1980.
9. Time Evolution of a Granite Mass under Thermal Loads Originating in Fission By-products, M. Ventura and J.C. Ferreri, Report to CNEA, Argentina, CNEA-NT 23/85, pub. 1985, 1982.
10. Time Evolution of a Granite Mass under Thermal Loads Originating in Fission By-products - Sensitivity Study, M. Ventura, and J.C. Ferreri, Report to CNEA, Argentina, CNEA-NT 24/85, pub. 1985, 1982.
11. Experience in the Implementation and Use of the Programs SOLA-LOOP, TRAC P1A and TRAC-PD2, A. Doval and J.C. Ferreri, Report to GPRS, CNEA, Argentina, GPRS-NT 2, 1983.
12. Computational Study of an Incident of Loss of External Power for the CNA-I Nuclear Power Station, Detailed Report, A. Doval and J.C. Ferreri, Report to GPRS, CNEA, Argentina, 1984.
13. Thermal behavior of silos for irradiated fuel bundles containment (Project ASECQ), M. Ventura, J.C. Ferreri and G.M. Grandi, Report to GSRN, CNEA, Argentina, 1990.
14. Nuclear Safety evaluation of the thermal-hydraulic behavior in normal and postulated accidental scenarios of the Multiple Purpose Reactor (22 MWth), J.C. Ferreri, Memos to Radiological and Nuclear Safety Branch, Research Reactors and Critical Systems Group, Nat. Board of Nuclear Regulation, (Lic. R. Waldman, Project Leader), 1996.
15. Hundreds of reports to Board of Directors as the Head, Scientific and Technical Support Branch, NRA, Argentina, 2004-2011.

## List of Supervised Fellowships

<b>FELLOW</b>	<b>TYPE OF FELLOWSHIP, FIELD, INSTITUTION</b>
R.D. Rosso,	Training, Fluid Dynamics, INTI
C.R. Casanova,	Graduation, Physics, Fluid Dynamics, INTI, UBA
D. Quinn,	Graduation, Physics, Fluid Dynamics, INTI, UBA
J.A. Fiora,	Graduation, Mathematics, INTI, UBA
O. Cánepa,	Graduate, Thermal-hydraulics, CNEA
A.J. Cabello,	Graduate, Parameter Estimation, CNEA
A. Gutierrez,	Graduate, Systems Analysis, CNEA
E. Marino,	Graduate, Thermal-hydraulics, CNEA
M.A. Forcinito,	Graduate, Numerical Fluid Dynamics, CIC-PBA
A. Del Carmen,	Graduate, Numerical Modelling, CIC-PBA and ARN
R.J. March,	Graduate, Numerical Modelling in Archaeology, CONICET and U. París 1, Pantheon-Sorbonne
Kamal Eldin Talha	PHD, Thermal-hydraulics, IAEA/Egypt

## List of supervised PhD and MSc Theses

<b>CANDIDATE</b>	<b>FIELD, INSTITUTION and YEAR</b>
G.M. Grandi	PhD, Nuclear Engineering, Inst. Balseiro, UNCUIYO, 1989 (10/10)
J.D. Jiménez Díaz	MSc in Simulation and Control, FI-UBA, 2015 (10/10)
Lazarte	PhD, Nuclear Technology, Inst. Dan Beninson, UNSAM, 2018 (10/10)

## List of Dissertation Committees Membership for MSc and PhD Theses

<b>CANDIDATE</b>	<b>FIELD, INSTITUTION and YEAR</b>
1. Dr. M. Mattea,	PhD in Chem. Eng., UNS, 1984
2. Dr. L. Mancini,	PhD in Physics, UBA, 1985
3. Dr. A. Clause,	PhD in Nuclear Engineering, Inst. Balseiro, 1986
4. Dr. L. Venegas,	PhD in Meteorological Sciences, UBA, 1986
5. Dr. G. Berri,	PhD in Meteorological Sciences, UBA, 1987
6. Dr. E. Darderes,	PhD in Physics, UNLP, 1988
7. Dr. F. Bonetto,	PhD in Nuclear Engineering, Inst. Balseiro, 1990
8. Dr. M. Storti,	PhD in Chemical Engineering, UNL, 1990
9. Dr. J. Diez,	PhD in Physics – Fluid Mechanics, UNCPBA, 1990
10. Dr. J. Baliño,	PhD in Nuclear Engineering, Inst. Balseiro, 1991
11. Dr. A. Larreteguy,	PhD in Nuclear Engineering, Inst. Balseiro, 1992
12. Dr. G. Guido Lavalle,	PhD in Nuclear Engineering, Inst. Balseiro, 1992
13. Dr. A. Denis,	PhD in Physics – Materials Sciences, UBA, 1992
14. Dr. D. Delmastro,	PhD in Nuclear Engineering, Inst. Balseiro, 1993
15. Dr. P. Carrica,	PhD in Nuclear Engineering, Inst. Balseiro, 1993
16. MSc. G. San Martín,	MSc in Material Sciences, Univ. San Martín-CNEA, 1995
17. Dr. L. Cardón,	PhD in Physics - Natural Circulation, UNSA, 1996
18. Dr. J. D'Elia,	PhD in Engineering, Computational Mechanics, UNL, 1997
19. MSc. F. Bombardelli	Msc. Eng. Computational Hydraulics, UBA, 1998
20. Dr. M. Severino	PhD in Chemical Technology, Capillary flows, UNL, 2001
21. MSc. D. Campana	MSc in Chem. Technology, Comp. of capillary flows, UNL, 2001
22. Dr. A. Fraidenraich	PhD in Engineering, Perturbative Methods, FI-UBA, 2004
23. Dr. P. A. Zanocco	PhD in Nuclear Engineering, Inst. Balseiro, UNCuyo, 2005
24. Dr. R. Prado	PhD in Engineering, FI-UBA, 2007
25. Dr. A. Otero	PhD in Engineering, FI-UBA, 2008
26. Dr. L. Battaglia,	PhD in Engineering, Computational Mechanics, UNL, 2009
27. Dr. P.F. Molina	PhD in Physics, Thermo-luminescence, UNCPBA, 2009
28. MSc. M.A. Martínez	MSc. in Engineering, Num. Simul. and Control, FIUBA, 2009
29. Dr. M. Muhieddine	PhD in Informatics, Num. Simul., Univ. Rennes, France, 2009
30. Dr. J. Marcazzó	PhD in Physics, OSL and Thermo-luminescence, UNCPBA, 2010
31. MSc. Matías Rivero	MSc. in Engineering, Num. Simul. and Control, FIUBA, 2011
32. Dr. N. Muñoz Vazquez	PhD in Physics, Heat Transfer in Buildings, UNCPBA, 2018