Universidad Nacional de San Martín

Escuela de Ciencia y Tecnología
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Dante R. Chialvo

Citizenship

Argentine Native, Naturalized USA.

Current appointments

Founder & Director, Center for Complex Systems & Brain Sciences (CEMSC3), Universidad Nacional de San Martín, Buenos Aires, Argentina.
Founder & Vice-Director, Instituto de Ciencias Físicas (ICIFI) CONICET & Universidad Nacional de San Martín, Buenos Aires, Argentina.
Senior Advisor (General Secretary) for the Cross-Campus Neuroscience Initiative of the Universidad Nacional de San Martín, Buenos Aires, Argentina.
Principal Investigator in Physics of the National Council for Scientific and Technological Research (CONICET) Argentina.
Full Professor. Medical Physics, Escuela de Ciencia y Tecnología, Universidad Nacional de San Martín, Buenos Aires, Argentina.

Education

Colegio Nacional (Rafaela, Argentina) Bachillerato. 1973 Sciences
Universidad de Rosario (Rosario, Argentina) M.D. 1982 Medicine

Editorials

Editorial Executive Board "Journal of Physics, Complexity" (Founding Member).
Editorial Board "Theoretical Issues in Ergonomics".
Advisory Board "Papers in Physics".
Editor Asoc. "Networks Neuroscience".
Editorial Board "PLoS One".
Editor Asoc. "Frontiers in Fractal Physiology ".
Editor Asoc. "Frontiers in Integrative Neuroscience".
Editor Asoc. "Frontiers in Multidisciplinary Physics".
Editor Asoc. "Frontiers in Network Physiology".
Review Editor "Frontiers in Neuroinformatics".

Mayor Active funding

2019-2023 National Institutes of Health (NIH) BRAIN Initiative (USA). Grant 1U19NS107464-01 "Readout and control of neuronal codes for behavior" https://www.holobrain.org.

2022-2025 Ministerio de Economia, Industria y Competividad, MICINN (Spain) grant PSI2017-82397-R "Desarrolo de tecnicas de resonancia magnetica cerebral para el estudio de dinamicas cerebrales emergentes".

2020-2024 Foundation for Polish Science (Poland) Grant POIR.04.04.00-00-14DE/18-00 "Bio-inspired Artificial Neural Networks" .

2022-2023 Subsecretaría de Ciencia, Tecnología e Innovación. Ministerio de Producción, Ciencia e Innovación Tecnológica, Provincia de Buenos Aires, Argentina. "Desarrollo de un predictor del impacto neurocognitivo de Covid prolongado para los habitantes de la Provincia de Buenos Aires". (Ex-2022-11094039- -Gdebadtayldliiimpceitgp).

Honors & Mentions

2022 Elected Member of the Latin American Academy of Sciences (ACAL, Academia de Ciencias de America Latina).

2021 "Marian Smoluchowski Visiting Professorship" Institute of Theoretical Physics. Mark Kac Complex Systems Research Center. Faculty of Science, Astronomy and Applied Computer Science. Jagiellonian University. Krakow, Poland.

2017 "Eduardo de Robertis" Named Lecture Award, Sociedad Argentina de Investigación en Neurociencia.

2015 Visiting Professor Award, Seconda Universita degli Studi di Napoli, Aversa (Caserta) Italy.

2013 Ikerbasque Visiting Professor Award, Basque Foundation for Science (Bilbao). (Declined for incompatibilities with CONICET position).

2011 Elected Fellow of the American Physical Society.

2009 American Physical Society Outstanding Reviewer.

2007 Distinguished Lecturer, The Frank and Elaine Moss Hospitality Fund. University of Saint Louis, Missouri.

2007 Santander Distinguished Visiting Professor. Psychology Department, Universidad Complutense de Madrid (UCM), Madrid, Spain.

2005 Fulbright US Scholar Award. US State Department.

1989 Young Investigator Award. North American Society of Pacing and Electrophysiology (NASPE).

1982 Pre-doctoral Fellowship, CONICET (Argentine National Research Council).

Previous appointments

Full Professor (Research), Physiology, Northwestern Univ. Feinberg Med. School, Chicago, Illinois. (2009-2010)

Associate Professor (Research), Physiology, Northwestern Univ. Feinberg Med. School, Chicago, Illinois. (2000 – 2009).

Research Physiologist, Department of Physiology. UCLA Medical School, Los Angeles, CA (2002– 2012).

Senior Scientist, Brentwood Biomedical Research Institute, West Los Angeles Veterans Adm. Medical Center (2002– 2012).

Research Assistant Professor, Department of Physiology. University of Arizona, Tucson. (1993 – 1997).

Research Scientist, Santa Fe Institute. Santa Fe (New Mexico). (1993 – 1996).

Research Assistant Professor, Computational Neuroscience. SUNY/Health Science Center at Syracuse (1991 – 1993).

Research Assistant Professor, Pharmacology. SUNY/Health Science Center at Syracuse. New York. (1990 – 1991).

Postdoctoral Research Associate, Pharmacology. SUNY/Health Science Center at Syracuse, New York. (1987 – 1990).

Professor (Tenured). Department of Physiology, School of Medical Sciences, National University of Rosario, Argentina. (1986 – 1989).

Instructor, Human Physiology, School of Medicine, National University of Tucumán, Argentina. (1982 –1986). Course: Human Physiology for Medicine.

Research Fellowship CONICET (Argentine National Research Council). Insibio. Bioengineering Department. Tucumán. Argentina. Supervisor: Dr M. E. Valentinuzzi. (April 1984 –April 1985).

Research Fellowship CONICET (Argentine National Research Council). Insibio. Bioengineering Department. Tucumán. Argentina. Supervisor: Dr M. E. Valentinuzzi. (April 1982 – March 1984).

Teaching Assistant, Human Physiology, School of Medical Sciences, National University of Rosario, Argentina. (1977 – 1982). Course: Human Physiology for Medicine.

Visiting and adjunct appointments

Professor, Graduate Program in Neuroscience, University of the Balearic Islands, Palma de Mallorca, Spain (2011-present).

Research Physiologist, Department of Physiology, University of California, Los Angeles, CA. (2002- 2012)

Senior Scientist, Brentwood Biomedical Research Institute, West Los Angeles Veterans Adm. Medical Center. Los Angeles, CA. (2009- 2012)

Adjunct Professor, Physiology, Northwestern Univ. Feinberg Med. School, Chicago, Illinois. (2009- 2012)

Associate Scientist, Center for Stochastic Modeling, Mathematical and Sciences Department, Universidad de San Andrés, Buenos Aires, Argentina (2009- 2012)

Visiting Professor, Instituto Universitario Ciencias de la Salud, University of the Balearic Islands, Palma de Mallorca, Spain. (July-August 2009. Host: Dr. Pedro Montoya).

Visiting Professor, Physics Department, University of the Balearic Islands, Palma de Mallorca, Spain. (October 2007. Host: Dr. Oscar Calvo).

Professor, PhD Program in Biomedical Sciences. School of Medicine, Universidad Nacional de Rosario, Rosario, Argentina (2004 - present).

Visiting Associate Professor, Department of Physiology, Cornell University, Ithaca, NY, USA. (2001 - 2005).

Visiting Professor, Psychology Department, University of the Balearic Islands, Palma de Mallorca, Spain. (June-July 2004. Host: Dr. Pedro Montoya).

Adjunct Faculty, Center for Studies in Physics & Biology. The Rockefeller University. New York. (1999- 2004).

Visiting Professor, Cross-Disciplinary Physics Department, Institut Mediterrani d'Estudis Avancats (Mediterranean Institute for Advanced Studies), University of the Balearic Islands, Palma de Mallorca, Spain. (June-July 2003, Host: Dr. Manuel Matyas).

Visiting Professor, Physics Department, University of the Balearic Islands, Palma de Mallorca, Spain. (May-June-July 2002. Host: Dr. Raul Toral).

Visiting Professor, Cross-Disciplinary Physics Department, Institut Mediterrani d'Estudis Avancats (Mediterranean Institute for Advanced Studies), University of the Balearic Islands, Palma de Mallorca, Spain. (June-July 2000. Host: Dr. Oreste Piro).

Visiting Professor, Physics. Niels Bohr Institute. Copenhagen, Denmark (Summers of 1996 and 1999. Host: Dr. Per Bak).

Visiting Professor, Center for Studies in Physics and Biology. The Rockefeller University, New York (1997 and 1998, Hosts: MJ Feigenbaum and M Magnasco).

Guest Scientist and External Faculty, Biomedical Engineering Dept., Favaloro University. Buenos Aires, Argentina (1997 - 2000).

External Faculty, Computational Neuroscience Program, SUNY/Health Science Center at Syracuse. Syracuse, NY (1993 - 1996).

Visiting Assistant Professor, Santa Fe Institute, Santa Fe, New Mexico (1992 -1995).

Adjunct Professor, Department of Ecology and Evolutionary Biology. University of Arizona, Tucson (1993 -1994).

Professional activities

Service

2018- Founding Member of the Instituto de Ciencias Físicas (ICIFI) CONICET/Escuela de Ciencia y Tecnología. Universidad Nacional de San Martín. Buenos Aires. Argentina.

2018-2021 Consejero Titular, Concejo Académico. Escuela de Ciencia y Tecnología. Universidad Nacional de San Martín. Buenos Aires. Argentina.

2010 CIMA, Capacitación e Investigación para la Medicina Argentina, Asociación Civil. (Founding member and Secretary). [http://www.cimaprofisio.net]

2010 HEFTA, Health for the Americas, NGO (Founding member and Vice-President).

Organization of Workshops and Courses

2023

Member of the Scientific Committee. Workshop "Neural Coding", Piriapolis, (Uruguay) February 27-March 4 , 2022.

2021

Co-Organizer (with C. Gross, Goethe Univ. Frankfurt),"Brain Criticality: The Past, the Present and the Future". Virtual Satellite Meeting, Bernstein Network of Computational Neuroscience. September 26, 2021.

Director, March-July, Graduate Course Computational Neuroscience, Escuela de Ciencia y Tecnología, Universidad Nacional de San Martín, Argentina.

Director, March-July, Graduate Course Cognitive Neuroscience, Escuela de Ciencia y Tecnología, Universidad Nacional de San Martín, Argentina.

Member of the Scientific Committee. Workshop "1981-2021: Forty years of Stochastic Resonance", Perugia, (Italy) September 12-15, 2021.

2020

Organizer, October 6-8th, Brain Criticality Virtual Meeting, http://braincriticality.org

Organizer, March 6-8, Complexity Workshop. Mercedes, Buenos Aires, Argentina

2019

Member of the Regional Committee IUPAP International Conference on Statistical Physics (StatPhys27) Buenos Aires, Argentina.

Organizer, Complexity Workshop. Las Heras, Buenos Aires, Argentina

2018

Member of the International Advisory Committee UPON 2018, 8th International Conference on Unsolved Problems on Noise. Gdansk. Poland.

Lecturer and Director Course Ceunim-Cemsc3 Computational Camp on Neuroimaging "From the Dicom to the paper" February-March 2018 ECYT-Universidad Nacional de San Martin, Argentina.

2017

Panel Member of PENCO, the Cognitive and Behavioral Sciences Platform of CONICET, Argentina.

2016

Lecturer and Co-director Course "Universalidad, Sistemas Complejos y Neuroimagenes", Escuela de Ciencia y Tecnología, Universidad Nacional de San Martin, Buenos Aires. May-July, 2016.

2015

Lecturer Post-Graduate Course "Complexity, Criticality & Consciousness", Department of Industrial and Information Engineering, Second University of Naples, Aversa, (Italy) November, 2015.

2013

Director and Lecturer Post-Graduate Course on "Sistemas Complejos en Neurociencia". Programa de Doctorado en Neurociencia. Universidad Nacional de Córdoba.

Departamento de Física, Facultad de Matemática Astronomía y Física. Córdoba, Argentina. August, 2013.

Member of the International Advisory Committee of the XII Latin American Workshop on Nonlinear Phenomena, LAWNP12, Cordoba, Argentina, October 21-24, 2013.

2011

Member of the International Advisory Committee of the XI Latin American Workshop on Nonlinear Phenomena, LAWNP11, San Luis Potosi, Mexico, 10-14 October, 2011.

2010

Profesor visitante, "Música y Neurociencia, Bases Neurales de la Consonancia en música tonal". Universidad de la República, Montevideo, Uruguay (June, 2010).

Organizador y Chairman, "Dolor, Neuroimagenes y dinámica cerebral" Conferencia Internacional, UNR, Rosario, Octubre 24, 2010.

2009

Member of the International Scientific Committee of the 8th International Workshop in Neuronal Coding 2009. National Cheng Kung University, Taiwan, (May 2009).

Member of the International Advisory Committee of the XI Latin American Workshop on Nonlinear Phenomena, LAWNP09, Buzios, Brazil, 5–9 October , 2009.

2008

Member of the Scientific Program Committee of the ECCB08 European Conference in Computational Biology, Cagliary, Italy. September 22–26, 2008.

2007

Member of the International Scientific Committee of the 7th International Workshop in Neuronal Coding 2007. Uruguay, November 2007.

Member of the International Scientific Committee SPIE BioMEMS and Nanotechnology III (AU02) 4–7 December, Canberra, Australia, 2007

Co-Organizer (with Maya Paczuski and Kim Sneppen) Workshop on "Computational Philosophy: Lessons from simple models" Niels Bohr Institute, Copenhagen, Denmark October 11-13, 2007.

Lecturer, "Complejidad sin Matemáticas: Redes de interacción". Universidad Complutense de Madrid, Spain (May-June, 2007).

Lecturer, "Second Latin-American School on Statistical Physics and Interdisciplinary Applications" organized by the UFRGS?s Complex Fluids group (Brazil) and the ICTP (Trieste, Italy), Bento Goncalves, Brazil.

2006

Lecturer, "Introducción a la Complejidad". V Curso Boliviano de Sistemas Complejos. Universidad Mayor de San Andrés Carrera de Física, La Paz, Bolivia.

Organizer and Chairperson, "Workshop on Brain Physics and Mind Dynamics". Satellite activity to MEDYFINOL'06. Mar del Plata, Argentina, December 5, 2006.

Member of the International Scientific Committee. XV Conference on Nonequilibrium Statistical Mechanics and Nonlinear Physics (MEDYFINOL'06). Mar del Plata, Argentina, December 4-6, 2006.

2005

Director and Lecturer Post-Graduate Course (US Fulbright Scholar Award) on "Sistemas Complejos en Biología y Medicina". Departamento de Física, Facultad de Matemática Astronomía y Física. Universidad Nacional de Córdoba. Córdoba, Argentina. August–October, 2005.

Member of the Program Committee of the Third SPIE International Symposium on Fluctuations and Noise in Biological, Biophysical, and Biomedical Systems, Austin, TX, USA. July 2005.

Member of the International Scientific Committee of the VIII Latin American Workshop on Nonlinear Phenomena, LAWNP05, Bariloche, Argentina, October 24–28, 2005.

2004

Director (with JM Parrondo) and Lecturer Summer Course "Mente y Complejidad". Universidad Complutense de Madrid. El Escorial. Spain. August 2004.

Member of the International Scientific Committee of the Second SPIE International Symposium on Fluctuations and Noise in Biological, Biophysical, and Biomedical Systems (FN01). 25–28 May 2004. Maspalomas, Gran Canaria, Spain.

2003

Lecturer, in the Summer Course "Emoción y Cerebro". Universidad Complutense de Madrid. El Escorial. Spain. August 6–9, 2003.

Organizer, International Workshop on "Complexity & Criticality in Networks" held at the Computational Neuroscience Meeting CNS 2003, Alicante, Spain University Miguel Hernández (Medical School Campus) July 8–9, 2003.

2002

Member of the International Scientific Committee and Lecturer, European Interdisciplinary School on Nonlinear Dynamics for System and Signal Analysis, EUROATTRACTOR2002, Warsaw, June 18– 27, 2002, Institute of Biocybernetics and Biomedical Engineering, Polish Academy of Sciences, Poland.

1996

Co-Director and Lecturer, "MEDYFINOL 96". Latin-American Summer School on Statistical Mechanics and Nonlinear Physics, Tucumán, Argentina, October 1996.

1994

Co-Director: Interdisciplinary Autumn School on "Nonlinear Analysis of Physiological Time Series". Philosophiezentrum der Universitaet Am Hubland, Wuerzburg, Germany, September 26–30, 1994.

Co-Organizer International Workshop on "Nonlinear Dynamics, Fractality, and Self-organization of Complex Systems", Philosophiezentrum der Universitaet Am Hubland, Wuerzburg, Germany, October 1-3, 1994.

Co-Organizer: "The Role of Noise in Signal Transmission", Symposium at the Biophysical Society Annual Meeting, New Orleans, March 1994 (with Frank Moss, Physics, University of Missouri)

1992

Member of the Scientific Committee, Workshop on "Chaos, Fractals, 1/f Fluctuations and Self-organized Criticality in Biology and Medicine", Wuerzburg, Germany, February 29, 1992.

Co-Director: Workshop on "Power laws, Noise and Neural Code", Syracuse, November 1992. (with AV Apkarian, SUNY/Syracuse).

1990

Director: Invited Graduate Course "Four days of fractals, chaos and rhythms". August 1990. School de Medicine, University of Rosario, Argentina.

1985

Co-Director: Special Graduate Course on "Dynamical Systems and Chaos". June 1985. Physics Department. National University of Tucumán, Argentina (with Drs. Iglesias and A. Coviello) .

Grants, Promotions and Thesis Committees

Grants and promotion reviewer:

(USA) National Institute of Health, NHBLI Cardiovascular Study Section (ad-hoc reviewer) (1992-1994); National Institute of Health, Geriatrics and Rehabilitation Medicine Study Section (ad-hoc reviewer) (1998); National Institute of Health, NINDS. (2009); National Science Foundation (2003, 2006); John D. and Catherine T. MacArthur Foundation (2008).

(Europe) Complexity Expert Reviewer for the NEST ("New Emerging Science & Technology") 6th Framework Programme of the European Commission, Brussels (2006); Italian National Institute for the Physics of Matter (INFM) (ad-hoc grant reviewer, 1998); United Kingdom Biotechnology and Biological Sciences Research Council (BBSRC) (Grant reviewer, 2007); Swiss Federal Institute of Technology, Zurich, ETH Zurich Research Commission (ad-hoc grant reviewer, 2008). CNRS France 2014-2018; European Science Foundation in the frame of Ghent-Fast-Track-20 2020.

(Argentina) Grant Reviewer for the "Area de Ciencias Físicas y Matemáticas" de la "Agencia Nacional de Promocion Cientifica y Tecnologica" (ANPCyT), Argentina (1999-2001, 2003, 2004, 2005, 2006,2009,2013-2016, 2019). Promotion Reviewer for Conicet, Argentina (2005, 2006, 2007, 2010, 2020).

Member of thesis committees

(USA) Departments of Neuroscience (1995) and Mathematics (1996), University of Arizona, Tucson, AZ, Northwestern Univ. , (2002). (Europe) Helsinki Univ. Finland, External Examiner (2002). ETH Zurich, Switzerland, External Examiner (2005). University of Islas Baleares, Mallorca, Spain, Psychology Department External Examiner (2008). (Argentina) Dept. of Physics, FCEN, University of Buenos Aires, Argentina External Examiner(2005), University of Córdoba, Biology PhD Program. Thesis Committee Member (2007).

Referee for Scientific Journals

Physics Letters A, Physical Review Letters, Physical Review E, Physica A, Physica D, Science, Nature, Biological Cybernetics; Journal of Theoretical Biology, Circulation, Journal of Clinical Investigation, Journal of Neuroscience, Journal of Neurophysiology, Journal of Cardiovascular Electrophysiology, Chaos, Neuroscience Letters, Trends in Neurosciences, Experimental Neurology, Mathematical Bioscience, Europhysics Letters, Advances in Complex Systems, Neurocomputing, Nature Physics, Acta Biotheorethica, BioSystems, New Journal of Physics, Journal of Physics A, J. Physiology (Paris), Neurobiology of Disease, PLOS Computational Biology, Epilepsia. Anesthesia and Analgesia. Cerebral Cortex. Neuroimage.

Societies

Member of the Asociación Argentina para el Progreso de las Ciencias.
Regular Member of the Asociación Argentina de Física.
Regular Member of the Sociedad Argentina de Neurociencias.
Elected Fellow of the American Physical Society

Training of fellows

Licenciature Students

1. Ariel Haimovici, Co-director (with Pablo Balenzuela), Tesina de Licenciatura de Física. FCEN, Dept. Fisica, UBA (2010–2011).

2. Tatiana Alonso Amor, Director, Tesina de Licenciatura de Física. FCEN, Dept. Fisica, UBA (2012–2013). PhD Graduated in ETH Zurich.

3. Enzo Tagliazucchi. Co-director (with Pablo Balenzuela) Tesina de Licenciatura en Física, FCEN, UBA, (2008-2010).

4. Sebastian Quiroga Lombardi. Co-director (with Pablo Balenzuela) Tesina de Licenciatura en Física, FCEN, UBA, (2008-2010).

5. Tatiana Miller Flores. Director Tesis Licenciatura en Física Médica Universidad Nacional de San Martín, (2018-2019)

6. Lucia Fabio, Co-director (with Eliana Azciuto), Tesina de Licenciatura de Física. FCEN, Dept. Fisica, UBA (2018–2019).

7. Agustin Caputo Bugallo, CO-director (with Tomas A Grigera), Tesina de Licenciatura de Física. FCE, Dept. Fisica, UNLP (2022–2023).

Undergraduate & Master Students

8. Chandra Ivey, Master student, Neuroscience, State University of New York, Syracuse. NY. (1995-1997)

9. Leonardo Hess, Director, Master Universitario Neurociencia, Universidad Islas Baleares, Mallorca, Spain. (Graduated 2012)

10. Agostina Tardivo, Director, Undergraduate Fellowship, School of Medicine, Universidad Nacional de Rosario, Rosario, Argentina (2010-2012)

11. Ana M Gonzalez Torrado, Director, Master Universitario en Neurociencia, Universidad Islas Baleares, Mallorca, Spain. (Graduated 2012)

12. Enrique Montes Wong, Supervisor, Master Universidad de Chihuahua, Mexico (2019)

13. Maria Trinidad Ibar Jalil, Supervisor, Undergraduate Fellowship, Univ. of San Martín, Argentina.(2022-2023)

Ph.D. Students

14. Brant Hinrichs, Ph.D. student, Physics, Urbana-Champaign and Santa Fe Institute for Complex Systems, Thesis "Characterizing complex time-series from the scaling of prediction error", Co-Advisor, Norman Packard). (1992-1994)

15. Katalin Gothard, Ph.D. student, Neuroscience. University of Arizona. (1994-1996).

16. Guillermo Cecchi, PhD student, Center for Studies in Physics and Biology. The Rockefeller University. (1997-1999)

17. Young Soo Kim, PhD student, Physiology and Neuroscience, Northwestern University Medical School. Chicago IL. (2000-2001).

18. Marwan Baliki, PhD student, Neuroscience, Northwestern University Medical School. Chicago IL. (2002- 2008).

19. Ariel Haimovici, Director, Doctorado en Fisica. FCEN, Dept. Física, UBA (2012–2017).

20. Bertha Vasquez, Co-director, PhD Student Physics, UNAM, Cuernavaca, Mexico. (2013– 2017).

21. Lucas Sedeño, Director, Doctorado en Neuroscience. Beca Conicet. Universidad Favaloro, Buenos Aires, Argentina (2013– 2018).

22. Hernan Bocaccio, Co-Director, Doctorado en Fisica. Beca Conicet, FCEN, Dept. Física, UBA. Buenos Aires, Argentina (2015 – 2018).

23. Mahdi Zarepour, Co-Director, Doctorado en Física. Beca Conicet , FAMAF, Universidad Nacional de Córdoba (2015–2020).

24. Stella Maris Sanchez, Co-Director. Beca Conicet. Doctorado en Física, FCEN, Dept. Física, UBA Buenos Aires, Argentina (2016 – 2019).

25. Alex T. Baria, Director. Four month off-site rotation from Univ. Autonoma de Madrid.(2019).

26. Maria A. Benitez, Co-Director. Beca Conicet. Doctorado en Neurociencia, Universidad Nacional de Córdoba, Cordoba. Argentina (2019–).

27. Maximiliano Bocio, Co-Director. Beca Conicet. Doctorado en Neurociencia, Universidad Nacional de Córdoba, Cordoba. Argentina (2020–).

Postdoctoral fellows

28. Dr.Tim Elston, Ph.D. Physics, Georgia Tech. Postdoctoral Fellow, Santa Fe Institute. Summer of 1994.

29. Dr. Alain Vinet, Ph.D. Physics, University of Montreal, Postdoctoral Fellow. SUNY, Syracuse. (1990-1991).

30. Dr. Johannes Muller-Gerking, Ph.D. Physics and Cognitive Sciences, University of Paris, Postdoctoral Fellow. University of Arizona (1995-1996).

31. Dr. Paul Geha, Postdoctoral Fellow, Northwestern University, Chicago (2003-2008).

32. Dr. Jennifer Foss, Postdoctoral Fellow, Northwestern University, Chicago (2004-2005).

33. Dr. Chuck Rudick, Postdoctoral Fellow, Northwestern University, Chicago (2005-2006).

34. Dr. Daniel Fraiman, Postdoctoral Fellow, Northwestern Univ. & Univ. of San Andres, Argentina (2005- 2009).

35. Dr. Ignacio Cifre, Postdoctoral Fellow, Northwestern Univ & UIB, Mallorca, Spain (2008-2009).

36. Dr. Carol Sitges Quiroz, Postdoctoral Fellow, Northwestern University, Chicago. (2009).

37. Dr. Ana Laura Schaigorodsky, Co-Director, Beca PostDoctoral Conicet, FAMAF, Universidad Nacional de Córdoba (2018 – 2020).

38. Dr. Itati Branca, Postdoctoral Fellow, Escuela de Ciencia y Tecnología, Univ. of San Martín, Argentina (2021 – 2022).

Supervision of Junior researchers

39. Simona Lavarello, Visiting Scholar, Northwestern Univ. (2002–2004).

40. Dr. Hector Berra, Visiting Fellow, Northwestern Univ. (2002–2004).

41. MS Maria V. Centeno, Research Associate, Northwestern Univ. (2003–2008)

42. Dr. Daniel Fraiman, Investigador Asistente CONICET. Director CIC (2010–2012), Univ. of San Andrés, Argentina.

43. Dr. Nadia Justel, Investigador Asistente CONICET. Director CIC (2016–2017) Univ. of San Martín, Argentina.

44. Dr. Daniel Martin, Investigador Asistente CONICET. Director CIC (2019–2021) Univ. of San Martín, Argentina.

45. Dr. Martin Belzunce, Investigador Asistente CONICET. Director CIC (2022–) Univ. of San Martín, Argentina.

Publications

Book

Dante R Chialvo & Joaquin Marro. *La mente es crítica: descubriendo la admirable complejidad del cerebro*. Granada, Spain: University of Granada Press (2018).

Publications with mayor impact (Data from Google Scholar. H index=54)

1. Sporns O, Chialvo DR, Kaiser M & Hilgetag CC. Organization, Development and Function of Complex Brain Networks. Trends in Cognitive Sciences, 8 (9): 418–425 (2004).
   Citations: 2405

2. Eguiluz V, Chialvo DR, Cecchi G, Baliki M, Apkarian AV. Scale-free brain functional networks. Phys. Rev. Letters 92, 018102 (2005). Also as arxiv.org/abs/cond-mat/0309092.
   Citations: 1771

3. Chialvo DR. Emergent complex neural dynamics, Nature Physics 6, 744–750 (2010).
   Citations: 1063

4. Baliki MN, Geha PY, Apkarian AV, Chialvo DR. Beyond feeling: chronic pain hurts the brain disrupting the default-mode network dynamics. Journal of Neuroscience 28(6): 1398–1403, (2008).
   Citations: 914

5. Carhart-Harris RL, Leech R, Hellyer PJ, Shanahan M, Feilding A, ... The entropic brain: a theory of conscious states informed by neuroimaging research with psychedelic drugs, Frontiers in Human Neuroscience, 20, (2014).
   Citations: 900

Complete list of publications in peer review journals. (> 12000 citations recorded in SCI and > 18000 in Google Scholar)

1. Controlling a neuron near its bifurcation point via temporal correlations. JT Moraes, S Camargo, DR Chialvo. (2022) https://arxiv.org/abs/2206.10000, Physical Review E 107 (3), 034204 (2023)

2. Tricritical behavior in a neural model with excitatory and inhibitory units. J. Almeira, TS Grigera, DR Chialvo, SA Cannas. (2022) https://arxiv.org/abs/2207.02320, Physical Review E 106 (5), 054140.

3. Scale free density and correlations fluctuations in the dynamics of large microbial ecosystems. N Zamponi, TS Grigera, E Gudowska-Nowak, DR Chialvo. (2022) https://arxiv.org/abs/2206.12384

4. Universal dynamics of mitochondrial networks: a finite-size scaling analysis. N Zamponi, E Zamponi, SA Cannas, DR Chialvo. Nature Scientific reports 12 (1), 1-13 (2022).

5. Scale-free correlations in the dynamics of a small (N 10000) cortical network. Camargo S, Martin DA, Aguilar Trejo, E, De Florian A, Nowak MA, Cannas SA, Grigera TS, Chialvo DR. (2022) https://arxiv.org/abs/2206.07797

6. Aguilar Trejo EJ, Martin DA, Grigera TS, Cannas SeA. , Chialvo D.R. Finite-size correlation behavior near a critical point: a simple metric for monitoring the state of a neural network. arXiv preprint arXiv.2205.11341 , Physical Review E 106 (5), 054313 (2022).

7. Carbajal JP, Martin DA, Chialvo DR. Memristor networks learn from mistakes. arXiv preprint arXiv:2011.07201 (2020) Physical Review E,105 (5), 054306 (2022).

8. Chialvo DR Cifre I, Ochab JK. Untangling the brain web: from the early days of complex functional networks to the non-linear dynamical directed functional connectivity measures. arXiv preprint, 2021

9. Sanchez Díaz MM, Trejo EAJ , Martin DA, Cannas SA, Grigera TS, Chialvo DR. Apparently similar neuronal dynamics may lead to different collective repertoire. arXiv preprint arXiv:2109.01614, Physical Rev. E,104 (6), 064309 (2021)

10. Cifre I, Flores MTM, Penalba L, Ochab JK, Chialvo DR. Revisiting non-linear functional brain co-activations: directed, dynamic and delayed. (Preprint arXiv:2007.15728 (2020)). Frontiers in Neuroscience, Brain Imaging Methods, (2021).

11. Ochab JK, Szwed J, Oleś K, Bereś A, Chialvo DR, Domagalik A, ...Observing changes in human functioning during induced sleep deficiency and recovery periods. PLoS one 16 (9), e0255771 (2021).

12. Ribeiro TL, Chialvo DR, Plenz D. Scale-free dynamics in animal groups and brain networks. Frontiers in Systems Neuroscience, doi: 10.3389/fnsys.2020.591210 (2021)

13. Zamponi N, Zamponi E, Cannas SA, DR Chialvo DR.Universal dynamics of mitochondrial networks: a finite-size scaling analysis. arXiv preprint arXiv:2010.16020 (2020).

14. Lins-Ribeiro T, Yu S, Martin DA, Winkowski D, Kanold P, Chialvo DR, Plenz D. Trial-by-trial variability in cortical responses exhibits scaling in spatial correlations predicted from critical dynamics. bioRxiv, submitted (2020).

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Brueggemann J, Y Kim, DR Chialvo, AV Apkarian. Cortical population dynamics for pain. Society for Neuroscience Meeting 2001, San Diego, CA.

Kim Y, O Calvo, J. Brueggemann, DR Chialvo, AV Apkarian "Algotrack": a novel thermal algesia assessment tool. Society for Neuroscience Meeting 2001, San Diego, CA.

Holschneider DP, OU Scremin, D Chialvo, K Chen, JC Shih. Mice deficient in monoamine oxidase A and B show a cardiac arrhythmia accentuated during exposure to the stress of a novel environment. Society for Neuroscience Meeting 2001, San Diego, CA.

Chialvo DR, The auditory perception of pitch and illusory phase-locking, BIOCOMP 2002, Napoli Italy, June 2002.

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Ali S, AV Apkarian, Y Sosa, ID Grachev, DR Chialvo. Self-organized brain chemistry maps: an approach to study altered brain chemistry in chronic pain. Society for Neuroscience Meeting 2002, Orlando, FL.

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Perotti JI, Billoni OV, Tamarit FA, Chialvo DR, Cannas SA, Estabilidad dinamica en redes complejas. Annual Meeting Argentinian Physics Society, AFA San Luis, Argentina (2006).

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Fraiman D, Balenzuela P, Chialvo DR. Redes funcionales en el punto critico: similaridades entre dinamica cerebral y el modelo de Ising. Asociación Argentina de Física . Buenos Aires, 2008.

Chialvo DR. Brain Resting State is critical. Society for Neuroscience, Washington DC, 2008. Poster 798.5/UU90.

Plenz D, Chialvo DR. Scaling of neuronal avalanches. Society for Neuroscience, Washington DC, 2008. Poster

Scremin OU, Chialvo DR, Lavarello S, Lucero MA. Altered cortical dynamics in Endosulfan exposed rats. Society for Neuroscience, Chicago IL, 2009. Poster.

Chialvo DR, Budelli, R, Caputi A, Lavarello S. A model for the neural basis of tonal consonance. Society for Neuroscience, Chicago IL, 2009. Poster.

Cifre I, Fraiman D, Balenzuela P, Apkarian A, Chialvo DR. Global and local properties of brain resting state networks in chronic pain. Society for Neuroscience, Chicago IL, 2009. Poster.

Cifre I, Sitges C, Muñoz-García MA, Larbig W, Fraiman D, Balenzuela P, Birbaumer N, Chialvo DR, Montoya P. Altered resting sate networks dynamics in fibromyalgia. Society for Neuroscience, Chicago IL, 2009. Poster.

Ribeiro TL, Ribeiro S, Caixeta F, Belchior H, Chialvo DR, Nicolelis MAL, Copelli M. Neuronal Avalanches: Scaling, Power Laws and Undersampling in Freely Behaving and Anesthetized Rats. XXIV Reunio Anual da FeSBE (Federacao de Sociedades de Biologia Experimental), Aguas de Lindóia, SP- Brasil (19/08/2009 a 22/08/2009). Poster 08.012.

Chialvo DR, Montoya P, Malagrava J, Garcia-Banda G. Diferencias individuales en salud y enfermedad: un modelo de contingencia. Poster, Spanish Research Society of Individual Differences (SEIDI) XI Meeting. Mallorca Spain, October 8, 2009.

Cifre I, Sitges C, Fraiman D, Muñoz MA, Martinez-Jauand M, Gonzalez-Roldan AM, Chialvo DR, Montoya P. Altered functional connectivity of pain matrix in fibromyalgia at resting. Org. Human Brain Mapping 16th Annual Meeting, 2010 Barcelona, Spain.

Muñoz MA, Subrata Bose, Cifre I, Sitges C, Noemi Sánchez-Nacher, Chialvo DR, Turkheimer F., Montoya P. A comparison of gray matter density in fibromyalgia patients and healthy controls using VBM. Org. Human Brain Mapping 16th Annual Meeting, 2010 Barcelona, Spain.

Chialvo DR, Tagliazucchi E, Fraiman D, Balenzuela P, Point process analysis of brain resting fMRI dynamics reveals scale-free avalanches. Society for Neuroscience, Washington DC, 2011. Poster 398.01/XX7.

Fraiman D, Tagliazucchi E, Balenzuela P, Muños MA, Montoya P, Chialvo DR, A nonlinear measure of fmri functional connectivity based on resting bold event triggered averages (rbeta). Society for Neuroscience, Washington DC, 2011. Poster 398.12/XX18.

Chialvo DR , Cannas SA, Martin DA, Plenz D, Grigera TS, Controlling a complex system near its critical point via temporal correlations. Society for Neuroscience, Chicago,IL. 2019. Poster.

Invited talks since 1996

1. September 30, 1996: Plenary Talk "Maps in our heads: Self-organization of topology-preserving maps". XI Conference on Nonequilibrium Statistical Mechanics and Nonlinear Physics Conference (MEDYFINOL'96), MEDYFINOL 96, San Miguel de Tucumán, (Rep. Argentina)
2. October 11, 1996: Universidad Favaloro, Buenos Aires (Rep. Argentina) "Maps in our heads: Self-organization of topology-preserving maps".
3. October 10, 1996: Physics Department Colloquium, School de Exact and Natural Sciences. University of Buenos Aires. "Self-organization in brain maps. Experiments and theory".
4. November 14, 1996: Center for Studies in Physics and Biology. The Rockefeller University, NY, USA. "Maps in our heads: Self-organization of topology-preserving maps."

1997

5. April 4, 1997: "What do brains compute?" Annual Computational Neuroscience Symposium. Speakers: Dante Chialvo, Per Bak, Teuvo Kohonen, J Field, D Ballard. Organized by the Computational Neuroscience Program, Syracuse University and SUNY Health Science Center at Syracuse 4–5 April 1997, Syracuse, NY, USA.
6. April 8, 1997: Invited Speaker. Plenary Talk. "Fractal 97, Fractals in the Natural and Applied Sciences" 4th International Multidisciplinary Conference Denver, Colorado, USA. "Mapping sameness into neighborness" .
7. July 20, 1997: Niels Bohr Institute. Copenhagen, Denmark. Physics Colloquium. "Learning from mistakes" .
8. August 3, 1997: Hochstleistungsrechenzentrum HLRZ, Forschungszentrum (P. Grassberger Lab) "What we don't know and we should know about brains?" Julich, Germany.
9. September 1997: Center for Studies in Physics and Biology. The Rockefeller Univ., NY, USA. "Learning from Mistakes" .

10. October 1997: McGill University. Montreal, Quebec, Canada. "Learning from mistakes could be critical and self-organized." Centre for Nonlinear Dynamics in Biology and Medicine, Colloquium.

11. October 1997: Cornell University, Ithaca, NY. Physiology Colloquium. "Learning and self-organization" .

12. October 1997: NEC Research Institute. Princeton. NJ. "Dynamical consequences of dendritic nonlinear conductances."

13. November 1997: SUNY Health Science Center at Syracuse, NY. Physiology and Neuroscience Colloquium, "Learning from mistakes".

1998

14. January 10, 1998: SUNY Health Science Center at Syracuse, NY. Neurosurgery Research Day. Special Invited Lecture. "Learning from mistakes".

15. April 8, 1998: Penn State University. State College, PA. Center for Gravitational Physics and Geometry, Special Seminar. "Learning from Mistakes".

16. May 9, 1998: Arcidoso, (Toscana), Italy. International conference on stochastic resonance in biology. "Criticality in excitable systems. Who started the fire?"

17. September 14, 1998: Invited Lecture. Municipal Council of Rafaela (Santa Fe) Rep. Argentina. "Complexity in Nature".

18. September 14, 1998: High School Luisa R. de Barreiro (EEM No 428, ex "Colegio Nacional de Rafaela"), Rafaela, (Santa Fe), Rep. Argentina. Special Class: "Doing Science".

19. September 25, 1998: Invited Lecture, Universidad Favaloro. Buenos Aires (Rep. Argentina) Colloquium in Biophysics. "Reading a neural code".

20. September 28, 1998: Colloquium, Physics Department. School of Exact and Natural Sciences. University of Buenos Aires. (Rep. Argentina) "Dynamical systems: complex, complicated or confused?"

1999

21. June 14, 1999: "Self-organized memory in extended systems". Niels Bohr Institute. Copenhagen, Denmark. Colloquium.

22. October 1-11, 1999: "The dynamics of complex systems" , Post-graduate course. School of Exact Sciences and Technology. National Univ. of Tucumán, San Miguel de Tucumán. Argentina.

23. October 16, 1999: Plenary Talk, "Noise Induced Memory" , VI Latin American Workshop on Nonlinear Phenomena, (LAWNP'99) and XII Conference on Nonequilibrium Statistical Mechanics and Nonlinear Physics Conference (MEDYFINOL'99), Huerta Grande. Cordoba. Argentina.

24. October 24-27, 1999: "The dynamics of complex systems" , Post-graduate course. PhD Program in Biomedical Sciences. School of Medical Sciences. Univ. Nacional de Rosario. Rosario. Argentina.

2000

25. April 13, 2000: Invited Seminar "Biological learning: Beyond Hebb ideas" , Georgia Institute of Technology. Atlanta, GA.

26. June 19, 2000: "Self-organization of ants trails" , Cross-Disciplinary Physics Department IMEDEA, (Mediterranean Institute for Advanced Studies), University of the Balearic Islands (UIB), Palma de Mallorca, Spain.

27. July 10, 2000: "Pitch perception revisited" Cross-Disciplinary Physics Department IMEDEA, (Mediterranean Institute for Advanced Studies), University of the Balearic Islands (UIB), Palma de Mallorca Spain.

28. October 20, 2000: "Nonlinear pitch perception" . Physiology Dept. Northwestern Med. School. Chicago IL.

29. October 24, 2000: "Revisiting the problem of pitch perception" , McGill University. Physiology, Montreal, Quebec, Canada. Centre for Nonlinear Dynamics in Biology and Medicine.

30. October 31, 2000: "Nonsense sounds created by our nonlinear senses" , Physiology Colloquium. Physiological Sciences Dept, Cornell University, Ithaca N.Y.

2002

31. January 20, 2002: "Per Learning" , Santa Fe Institute. Santa Fe, NM.

32. April 24, 2002: "Issues in Complexity and Emergence" . Institute of Pure and Applied Mathematics, UCLA. Los Angeles, CA.

33. May 3, 2002: "The Equations of E-motion" . International Symposium "Modeling complex biophysical processes" . Colonia, Uruguay.

34. May 5, 2002: "A neural mechanism for the missing fundamental illusion and the perception of pitch" . Dept. of Physiology, University of Montevideo, Uruguay.

35. May 7, 2002: "Illusory synchronization". University of Rosario. Medical School, Rosario, Argentina.

36. June 3, 2002: "The auditory perception of pitch and illusory phase-locking" . Biocomp 2002, Vietri sur Mare, Italy.

37. June 18-27, 2002: Invited Lectures in the European Interdisciplinary School on Nonlinear Dynamics for System and Signal Analysis, EUROATTRACTOR2002, Warsaw, June 18 to June 27, 2002, Institute of Biocybernetics and Biomedical Engineering, Polish Academy of Sciences.

38. July 18, 2002: "Excitable Systems" Cross-Disciplinary Physics Department IMEDEA, (Mediterranean Institute for Advanced Studies), University of the Balearic Islands (UIB), Palma de Mallorca Spain.

39. July 22, 2002: "What nonlinear physics can do for cardiology" . Cardiology Dept., Hospital Son Dureta, Palma de Mallorca, Spain.

40. July 30, 2002: "Exploraciones matemáticas del dolor crónico". Cross-Disciplinary Physics Department IMEDEA, (Mediterranean Institute for Advanced Studies), University of the Balearic Islands (UIB), Palma de Mallorca, Spain.

41. September 3, 2002: "Subharmonic Stochastic Resonance: a Neural Mechanism for the Missing Fundamental Illusion and the Perception of Pitch" , UPON 2002 Int. Conference on Unsolved Problem of Noise. National Institute of Health Campus (NIH). Bethesda, MD.

42. October 8, 2002: "Ghost resonance, how brain can see what is not there" . National Institute of Health Campus (NIH). Bethesda, MD.

43. October 22, 2002: "Ghost stochastic resonance: A neural mechanism for the missing fundamental illusion" . House Ear Institute, Los Angeles, CA.

44. November 29, 2002: "Ghost resonances in Physics and Biology" , Faculty of Technical Physics, Helsinki Univ., Finland.

45. December 9-13, 2002: "Modeling nonlinear aspects of perception and emotion" . Invited plenary talk, XIII Conference on Nonequilibrium Statistical Mechanics and Nonlinear Physics. Colonia, Uruguay.

2003

46. February 7, 2003: "Modeling brain perception" . Univ. Southern California, Information Sciences Institute, Marina del Rey, CA.

47. April 23, 2003: "El dolor no sólo duele, tambien lastima" University of Rosario Medical School, (Rep. Argentina)

48. April 29, 2003: Colloquium, Physics Department. School of Exact and Natural Sciences. University of Buenos Aires. (Rep. Argentina). "Sobre emociones, dolor y placer".

49. June 24, 2003: "Nonlinear processes in the heart" Cross-Disciplinary Physics Department IMEDEA (Mediterranean Institute for Advanced Studies), University of the Balearic Islands (UIB), Palma de Mallorca, Spain.

50. July 9, 2003: "Complexity and Criticality in Networks" . Workshop on Complexity and Criticality, Computational Neuroscience Meeting CNS 2003, University Miguel Hernández, Alicante, Spain

51. August 8, 2003: "Complexity in brain networks" . Talk and roundtable in the "Curso sobre Emoción y Cerebro" . Universidad Complutense de Madrid. El Escorial. Spain.

52. August 22, 2003: "Brain complexity" . Niels Bohr Summer Institute on Complexity and Criticality. A workshop honoring late Prof. Per Bak. Copenhagen, Denmark.

53. August 25, 2003: "How we can hear what is not there" . Niels Bohr Summer Institute on Complexity and Criticality. A workshop honoring late Prof. Per Bak. Copenhagen, Denmark.

54. September 23, 2003: "How sensory neurons code what is not out there". 5th International Workshop in Neuronal Coding 2003, Aulla, Tuscany, Italy.

55. October 9, 2003: Colloquium "Complexity of brain networks". Physics Dept. University of Houston, Houston, USA.

56. October 27, 2003: "Brains are critical" . Mathematics Dept., Harvey Mudd College, Claremont, CA, USA.

57. November 19, 2003: "Scale-free brain networks" . Dept de Fisica, Universidad de las Islas Baleares, Palma de Mallorca. Spain.

58. November 21, 2003: "How sensory neurons see what is not there" . Physiology Dept., Marburg University. Marburg, Germany.

59. November 25, 2003: "Brain networks" , Dipartimento di Fisica, Universita' di Roma, La Sapienza, Rome, Italy.

60. November 27, 2003: "Critical brains" , Departament de Fisica Fonamental, Universitat de Barcelona, Barcelona, Spain.

61. December 9, 2003: Scale-free brain functional networks" . Electrical Engineering Department, UCLA. Los Angeles, CA.

2004

62. March 3, 2004: "Scale free brain networks" Invited Lecture for the Inaugural Symposium of the Natal Neuroscience Institute, Natal. Brazil.

63. March 9, 2004: "Critical brain networks" , Physics Department. School of Exact and Natural Sciences. University of Buenos Aires, Buenos Aires, Argentina.

64. May 12, 2004: "Scale free brain functional networks" , Facultad de Astronomia Matematica y Fisica, University of Cordoba, Argentina

65. May 14, 2004: "Complex networks in biology and medicine" , Physics Dept., Univ. of Rosario, Rosario, Argentina.

66. May 22, 2004: "Brain networks" . Symposium celebrating Frank Moss 70th birthday. Institute of Biology of the Humboldt University, Berlin, Germany.

67. June 14, 2004: "Ghost Resonances in sensory systems" . Univ. Politecnica de Cataluña, Terrazas, Spain.

68. August 2, 2004: "Simplificando los sistemas complejos" . Introductory lecture for the Summer Course in Complex Systems: Mente y Complejidad., Universidad Complutense. El Escorial. Spain.

69. October 22, 2004: "Avalanches and brain networks" . Mini-Conference at University of Missouri St. Louis Celebrating Frank Moss's 70th Birthday, UMSL, St. Louis, Missouri.

70. December 6–10, 2004: "Scale free brain networks" . Plenary Talk MEDYFINOL 04 XIV Conference on Nonequilibrium Statistical Mechanics and Nonlinear Physics, La Serena, Chile.

2005

71. March 11, 2005: BSI Forum "De-constructing brain functional networks" , Riken Brain Science Institute. Perceptual Dynamics Laboratory, Saitama, Japan.

72. March 14, 2005: "Critical Brain networks" , Kaneko Lab, Department of Pure and Applied Sciences, Tokyo University, Komaba-Todai-Ma, Japan.

73. March 16, 2005: BSI Forum "Perception can be an objective illusion: the case of ghost resonances in auditory and visual sensory systems" , Riken Brain Science Institute. Perceptual Dynamics Laboratory, Saitama, Japan.

74. March 29, 2005: "Brain segregation-integration or just plain phase transition?" Complex System Group ICREA, (Catalan Institute for Research and Advanced Studies), Universitat Pompeu Fabra, Barcelona, Spain.

75. March 31, 2005: "Critical brain networks" Service Hospitalier Frédéric Joliot, Département de Recherche Médicale du CEA, Orsay, France.

76. April 2–22, 2005: "Self-organization of scale free brain networks" . Invited Plenary Talk. Los Alamos National Laboratory. Workshop on Collectives formation and specialization in biological and social systems, Santa Fe, New Mexico.

77. May 6, 2005: "Critical brain networks" . Colloquium. IGERT, Interdisciplinary Nonlinear Seminar. Northwestern Univ. Evanston, IL, USA.

78. June 15–18, 2005: "Rhythms, Dynamics and Avalanches" Plenary Talk, Rhythms Sleep & Learning Workshop. University of Rio Grande do Norte, Natal, Brazil.

79. July 19, 2005: "The abc of fMRI analysis" Psychology Department, University of the Balearic Islands (UIB), Palma de Mallorca, Spain.

80. July 26–August 1, 2005: Invited Plenary Talk. "Critical brain networks" . STOCHDYN "100 Years of theory on Brownian motion" celebrating the centennial of Einstein's work on Brownian motion. Ettore Majorana Center, Erice, Sicily, Italy.

81. August 8–12, 2005: Plenary Talk. International Summer Institute "Synchrony in Mind, Brain and Consciousness" . Peter Wall Institute for Advanced Studies at the University of British Columbia in Vancouver, British Columbia, Canada.

82. September 7, 2005: Round Table, "Avances multidisciplinarios en neurofisiología cognitiva: Desde la percepción musical al canto de los pájaros" . Congreso Argentino de Fonoaudiología, Rosario, Santa Fe, Argentina.

83. September 21–23, 2005: "Critical brain networks" . Plenary Talk, SABI 2005, Meeting of the Sociedad Argentina de Bioingenieria, Paraná, Argentina.

84. September 28, 2005: Plenary Talk, "Critical brain networks" . Argentinian Physics Society (AFA) Annual Meeting, La Plata, Argentina.

85. October 8–9, 2005: Invited Talk. European follow-up of the Peter Wall Institute "Synchrony in Mind, Brain and Consciousness" . University Paris Sorbonne, France.

86. October 26, 2005: "Critical brain networks" . Plenary Talk VIII Latin American Workshop on Nonlinear Phenomena, LAWNP05, Bariloche, Argentina.

87. October 28, 2005: "Perception, objective illusions and ghost resonances in auditory and visual sensory systems" . Series of Public Lectures Celebrating the 50th Aniversary of the Instituto Balseiro, Bariloche, Argentina.

88. December 1, 2005: Invited Colloquium. "How and why to study fluctuations in neural systems" . 2005 Argentine School of Neuroscience IBRO /INMHA Advanced School Receptors, Channels, and Synapses" INGEBI (CONICET), Buenos Aires, Argentina.

89. December 7, 2005: First Argentine School of Mathematics and Biology. Argentine National Program BIOMAT, National University of Córdoba, La Cumbre, Córdoba, Argentina. (Cancelled due to scheduling conflict)

90. December 12–16, 2005: Invited Plenary Talk. "BIOCOMP2005: Diffusion processes in neurobiology and subcellular biology" . Vietri sul Mare, Italy. (Cancelled due to scheduling conflict).

2006

91. March 3, 2006: Public Lecture "Brain Complexity" Cicle de Conferences "Cervell Conducta i Societat" Universitat de les Illes Balears i Fundacio "La Caixa" , Palma de Mallorca, Mallorca, Spain.

92. April 5, 2006: "Critical aspects of brain function" . Computation in Physics Colloquium, James Franck Institute, University of Chicago, Chicago.

93. July 17–21, 2006: Meeting on Constructive Role of Noise in Complex Systems (Seminar and Workshop: June 26 - July 21, 2006) at the Max-Planck Institute for Physics of Complex in Dresden (Cancelled due to scheduling conflict)

94. September 7, 2006: Invited Colloquium. "How and why to study fluctuations". Physiology Department, School of Pharmacy, University of Barcelona, Barcelona. Spain.

95. September 11–15, 2006: 9th Granada Seminar in Computational and Statistical Physics. Organized by the Institute "Carlos I" for Theoretical and Computational Physics, University of Granada. Spain. Computational and Mathematical Modeling of Cooperative Behavior in Neural Systems.

96. September 25–29, 2006: Twelve Lectures in the V Curso Boliviano de Sistemas Complejos (with emphasis on Neuroscience). Organized by Carrera de Física, Universidad Mayor de San Andrés, La Paz, Bolivia.

97. December 1, 2006: Physics Colloquium. Dept. of Physics and Astronomy, University of Missouri, Saint Louis (UMSL) (Cancelled due to bad weather).

98. December 4–6, 2006: Plenary Talk. XV Conference on Nonequilibrium Statistical Mechanics and Nonlinear Physics (MEDYFINOL06). Mar del Plata, Argentina.

99. December 14–16, 2006: Plenary Talk "Where in the world is the brain?" . Workshop on "Embodying cognition: Towards an integrated approach", Department of Psychology, Universitat de les Illes Balears, Palma de Mallorca, Spain.

100. December 18, 2006: "Critical Brain Networks" , Biophysics Colloquium. Radboud University, Nijmegen. The Netherlands.

2007

101. February 4–14, 2007: Two invited lectures in the "Second Latin-American School on Statistical Physics and Interdisciplinary Applications" organized by the UFRGS' s Complex Fluids group (Brazil) and the ICTP (Trieste, Italy), Bento Goncalves, Brazil.

102. February 21, 2007. Defense Department Advance Research Program (DARPA) HAND Meeting, Defense Science Office, Arlington, Virginia. What is next in advanced brain research?

103. May 16, 2007: Complexity without complications. Psychology Department. Universidad Complutense, Madrid, Spain.

104. September 24–28, 2007: Invited Plenary Talk. BIOCOMP2007 - Collective Dynamics: Topics on Competition and Cooperation in the Biosciences. Vietri sul Mare, Italy.

105. October 11–13, 2007: Invited Plenary Talk. Computational philosophy: lessons from simple models. Niels Bohr Institute, Copenhagen, Denmark.

106. October 19, 2007: Colloquium. Life Sciences Interface Chair. Southampton University, UK.

107. November 3–7, 2007: Plenary Talk. 8th International Workshop in Neural Coding 2007. Montevideo, Uruguay.

108. November 16, 2007: Colloquium. Physics, The Frank and Elaine Moss Hospitality Fund Distinguished Lecture Series. University of Saint Louis, Missouri, 2007. (Cancelled).

2008

109. April 11, 2008: Invited Colloquium. How is that the brain works? Instituto de Biología y Medicina Experimental, (IByME). Buenos Aires, Argentina.

110. June 24, 2008: Invited Colloquium, The brain: What is critical about it? Institute for Mathematical Sciences. Complexity Science Seminar Series. Imperial College, London, UK.

111. August 17-21, 2008: Invited Speaker. Stochastic Resonance 2008 International Conference. Perugia, Italy.

112. September 4, 2008: Invited Lecture at the "The physics and computational aspects of neural coding" Symposium. IBRO, NEUROLATAM I. First Ibero-Latin-American and Caribbean Meeting on Neuroscience. Buzios, Brazil.

113. December 1-4, 2008: Invited Speaker. XVI Conference on Non-Equilibrium Statistical Mechanics and Nonlinear Physics (MEDYFINOL08). Punta del Este, Uruguay.

114. December 15, 2008: Invited Colloquium. Instituto Tecnólogico Buenos Aires (ITBA), Buenos Aires, Argentina.

115. December 17, 2008: Invited Colloquium. "The brain is critical, and why should we care " . International Institute of Neuroscience, Natal , Brazil.

116. December 19, 2008: Invited Colloquium. "Reading the mind and understanding the brain, all at once" . Physics Department. UFRP, Recife, Brazil.

2009

117. January 6, 2009: Invited Plenary Talk. "How critical is the brain: physics and computational aspects" . XXXVIII Winter Meeting on Statistical Physics, Taxco, Guerrero, Mexico.

118. March 19, 2009: Invited Colloquium. "Brain's statistical physics" . Swiss Institute of Technology, (ETH). Zurich.

119. March 25, 2009: Invited Lecture. "Brain's statistical physics" . Institute for Mathematical Sciences. Imperial College, London, UK Meeting on Complexity and Networks. Neuroscience: Complexity analysis of signals.

120. August 25, 2009: Invited Lecture. "Beyond Feeling: how pain hurts the brain" . Research Day, Physical Medicine & Rehabilitation, Veterans Administration, West LA, Los Angeles.

121. September 25, 2009: Invited Lecture. "Brain balance in health and disease" , Psychology Dept. UIB, Mallorca, Spain

122. October 5, 2009: Invited Lecture. "Criticality and brain function" . X Latin American Workshop on Nonlinear Phenomena, LAWNP09, Buzios, Brazil. (Canceled due to last minute schedule conflict)

123. November 13, 2009: Invited Colloquium. Experimental evidence of improved human performance with aging. Programa De-Volvamos, Profisio CIMA, UNR, Rosario. Argentina.

2010

124. January 10-13, 2010: Invited Speaker. Workshop on "Decision–Making models" . Physics, University of North Texas, Denton, TX.

125. March 1–5, 2010: Invited Speaker. Brain Coordination Dynamics – an International Conference. Conference at Sea – Florida and Western Caribbean.

126. June 7, 2010: Invited Colloquium "Large scale brain dynamics" . Institute Carlos Estable, Montevideo, Uruguay.

127. July 3–7, 2010: Invited Speaker Symposium on "Structure, dynamics and function in large scale neuronal ensembles" in the Forum of European Neurosciences (FENS 2010, Amsterdam). (Cancelled due to scheduling conflict)

128. September 13-17, 2010: Invited Speaker 11th Granada Seminar on Computational and Statistical Physics. La Herradura, Tropical Coast of Granada. Organized by the Institute "Carlos I for Theoretical and Computational Physics" , University of Granada. Spain

129. September 21, 2010: Invited Lecture. "Novel non linear techniques of fMRI analysis" , Psychology Dept. UIB, Mallorca, Spain

130. October 26, 2010: Chairman and Organizer. Workshop on "I International Symposium for the Study of Chronic Pain and Fibromyalgia" . Facultad de Medicina, Universidad de Rosario, Rosario, Argentina.

2011

131. March 18-20, 2011: Invited Speaker. Workshop on "Brain Criticality" . Physics, University of North Texas, Denton, TX.

132. April 14, 2011, Invited Speaker. 6th Annual NIH Pain Consortium Symposium. "Mechanisms and Management of Overlapping Chronic Pain and Associated Conditions". Natcher Auditorium. NIH Campus, Bethesda, USA.

133. April 15–16, 2011, Invited Discussant. "Collaborating with CTSAs to Advance Pain Research", Natcher Conference Center, NIH, Bethesda, USA.

134. April 18, 2011, Invited Speaker. Lessons from atomic switches and neuron synapses: universal dynamics across 20 orders of magnitude. California NanoSystems Institute, UCLA, Los Angeles, CA, USA.

135. May 5–7, 2011. Keynote Speaker. "New challenges in brain imaging of pain" . VI Multidisciplinary Mediterranean Pain Forum & I European Multidisciplinary Pain Meeting, Menorca, Spain.

136. May 12–13, 2011. Invited Speaker. II International Symposium for the Study of Chronic Pain and Fibromyalgia, Universidad de las Islas Baleares. Palma de Mallorca, Spain.

137. June 23, 2011. Physics Colloquium. "What physics can do for brain science" . Physics Department, University of Buenos Aires, Argentina.

138. July 26, 2011. Physics Colloquium. "Criticality in Brain physics & Mind dynamics". Institute for Cross-disciplinary Physics and Complex Systems, University of Islas Baleares, Mallorca Spain.

139. July 27–28, 2011. Invited Speaker. Workshop on Noise and nonlinear dynamics in neural information processing (Honoring the late Frank Moss), Stockholm. (Canceled due to schedule conflict).

140. September 5–9, 2011. Invited Speaker, International Workshop on Nonlinear Physics and Applications, NOLPA2011, Joao Pessoa, Paraiba University, Brazil. (Canceled due to schedule conflict).

141. September 19–23, 2011. Invited Plenary Speaker. "The physics of the brain" . Bienal de Física de la Real Sociedad Española de Física, Palacio de La Magdalena de Santander, Spain.

142. September 26, 2011. Invited seminar. Criticality in brain physics and mind dynamics. EPFL. Lausanne, Switzerland.

143. September 27, 2011. Invited seminar. Criticality in brain physics and mind dynamics. Geneva Medical School - University of Geneva.

144. December 7, 2011. Invited seminar. "Como leer la mente y entender el cerebro." Segundo Coloquio Internacional de Neurociencia, Psicología Cognitiva y Sociedad, Instituto Rosario de Ciencias de la Educacion, UNR/Conicet, Rosario, Argentina.

2012

145. April 10-13, 2012. "MiniCourse on Cognitive Neuroscience" , Instituto Rosario de Ciencias de la Educación, UNR/Conicet, Rosario, Argentina.

146. May 2-3, 2012. Invited Speaker. NIH Sponsored Conference on Critical Brain Dynamics. "Two decades of critical brain dynamics". Natcher Auditorium. NIH Campus, Bethesda, USA.

147. May 20 - June 30, 2012. Visiting Professor. Course on Complexity for biology. Physics Dept, FCEyT, UBA, Buenos Aires.

148. July 4-5 , 2012. Plenary Speaker. "La física del cerebro" . Workshop at the Fundacion Areces, División de Física Medica, Real Sociedad Española de Física, Madrid, Spain.

149. July 13, 2012. Plenary Speaker. "Mathematical models of decision making in health and disease" . International Symposium on Chronic Pain, Palma de Mallorca, Spain.

150. September 17-21, 2012. Plenary Speaker, Physics, Computation, and the Mind-Advances and Challenges at Interfaces. Granada Seminar. La Herradura, Spain.

151. September 29, 2012. Invited Seminar, "Criticality in brain physics and mind dynamics" , Instituto Cajal, Madrid, Spain.

152. November 27, 2012. Invited Speaker: Que hace el cerebro cuando no hace nada? Complexity Workshop, Universidad Nac. General Sarmiento, Buenos Aires, Argentina.

153. December 11, 2012. Invited Colloquium: Que hace el cerebro cuando no hace nada? "Jornadas de Doctorado" del Instituto Tecnólogico Buenos Aires (ITBA), Buenos Aires, Argentina.

2013

154. January 10-12, 2013. Invited Lecture. MURI Winter School UCSD–Univ. Chicago. UC San Diego, CA, USA.

155. April 24-26, 2013 Invited Speaker. Encontro da Pós-Grad em Física e Astronomía da UFSC. Santa Catarina, Brazil.

156. May 17: Invited Speaker. Encuentro de Jóvenes Investigadores en Neurociencias de Córdoba, Córdoba, Argentina.

157. July 1: Brain Network Seminars, Department of Clinical Neurophysiology, VU University Medical Center, Amsterdam, Netherlands.

158. June 24-26: Invited Speaker. Conference "Physics of Emergent Behaviour: from single cells to group of individuals", Brighton, England.

159. July 8-10, 2013. NiPS Summer School 2013, Noise in Physical System Lab., Perugia, Italy.

160. July 10-12, 2013. Invited Speaker. "Nonlinear Dynamics of Electronic Systems", NDES 2013, Bari, Italy.

161. July 13-19, 2013. Invited Lecture. Summer School on Biological Complex Networks: "From the cell to Ecosystems" . International Institute of Physics, Natal, Brazil.

162. August 29-31, 2013. Invited Speaker. Marian Smoluchowski Symposium on Statistical Physics "Complexity of Brain: Critical Behavior and Scaling". Krakow, Poland.

163. September 2-7, 2013. Invited Speaker. Workshop "The Brain: Criticality, Dynamics, Networks and Function" at Villa Orlandi, Capri, Italy.

164. November 29, 2013. Conference at the Chaos, Solitons & Fractals, Editorial Board Meeting. Amsterdam, Netherlands.

165. December 3, 2013. Invited Seminar. "Criticality in brain physics and mind dynamics", Ikerbasque Foundation. Bilbao, Spain.

2014

166. March 10, 2014: Invited Speaker. Neuroimágenes y Drogas Psicodélicas. Brain Awareness Week. CAB, San Carlos de Bariloche, Argentina.

167. May 13, 2014: Keynote Speaker, "The brain is critical", Jagellonian University, Inaugural Symposium of the Biotechnology Center. Krakow, Poland.

168. May 14–16 2014: Invited Speaker, "Critical phenomena in brain sciences, a brief update" . Fourth International Workshop-School "Chaos, Complexity and Dynamics in Biological Networks" Institut d études scientifiques de Cargese, Cargese France

169. May 22, 2014: Invited Seminar. "Brain statistical physics, Laboratoire Matiére et Systémes Complexes, Univ. Paris 7 Diderot, Paris, France.

170. June 4–6, 2014: Invited Speaker, "The brain is critical" . Brain Connectivity Workshop 2014. Hamburg, Germany.

171. June 16–20, 2014: Invited speaker, "Causality, information transfer and dynamical networks" Max-Planck Institute for the Physics of Complex Systems (MPI-PKS) Dresden, Germany.

172. July 20, 2014: Keynote Speaker, "5th International Conference on Applied Human Factors and Ergonomics 2014. Jagiellonian University, Krakow, Poland.

173. July 28–August 1, 2014. Invited Speaker, "The brain is critical" . Workshop "Criticality in Natural and Social Complex Systems" , Honoring Prof. Germinal Cocho. Cuernavaca, Mexico.

174. September 10–12, 2014. Invited Speaker, Workshop "The Brain: Criticality, Dynamics, Networks and Function" . Hughes Research Lab, Malibu, USA.

2015

175. April 7–17, 2015: Invited Speaker, Workshop "Criticality in Biology: A Critical Assessment" Max-Planck Institute for the Physics of Complex Systems (MPI-PKS) Dresden, Germany.

176. April 20, 2015: Invited Seminar, Neuroimaging Colloquium. University of Kiel, Kiel, Germany.

177. April 23, 2015: Invited Seminar, Physics Department, Jagiellonian University Krakow, Poland.

178. May 6–8, 2015: Congreso Regional de Física Estadística y Aplicaciones a la Materia Condensada, XIII Trefemax. Los Reyunos, Mendoza, Argentina.

179. May 12, 2015: "The mind near the edge: A novel view of brain function" , Physics Dept. Universidad Nacional de San Luis, Argentina.

180. June 15–9, 2015: Invited Speaker, Granada Seminar, "Physics Meets the Social Sciences: Emergent cooperative phenomena, from bacterial to human group behavior". La Herradura, Spain.

181. August 31–Sept. 4, 2015: Invited Speaker "Workshop Complex Collective Dynamics: Brains and Beyond" at Villa Orlandi, Anacapri, Capri Italy.

182. September 28–Oct. 2, 2015: Invited Speaker. FISMAT 2015, Palermo, Italy.

183. September 14–17, 2015: Invited Speaker. XXVIIIth Marian Smoluchowski Symposium on Statistical Physics "Thermodynamics in a nanoscale" . Krakow, Poland

184. October 6, 2015: Invited Seminar, Dipartimento di Fisica e Chimica, Interdisciplinary Theoretical Physics Group, Viale delle Scienze, Ed. 18, Universita degli Studi di Palermo. Palermo, Italy

185. October 29„ 2015: Seminar, Dipartimento di Fisica "E.R. Caianiello" , Universita di Salerno, Fisciano (Italy)

186. November 10-12, 2015: 8C3, Eight Lectures on "Complexity, Criticality & Consciousness", Department of Industrial and Information Engineering, Second University of Naples, Aversa. Italy.

187. November 13, 2015: Neuro-informatics Colloquium, ETH-Zurich, Switzerland

188. November 16, 2015: Invited Seminar, Sissa, Trieste, (Italy) .

189. December 4, 2015: Invited Seminar, "Complexity, Criticality, Contingency & Consciousness" Instituto de Matemática y Estadística Rafael Laguardia (IMERL). Facultad de Ingeniería, Universidad de la República. Montevideo, Uruguay.

190. December 8, 2015: Invited Seminar, "Criticality in Brain Sciences" (IFFC), Instituto de Física, Facultad de Ciencias, Universidad de la República. Montevideo, Uruguay.

2016

191. February 24–25, Invited Speaker. Workshop on "Quantitative Biomedicine for Health and Disease" , Basque Center for Applied Mathematics (BCAM), Bilbao, Spain.

192. April 8–9. Invited Speaker. "Neuro-Cor, A Science Retreat". FAMAF/UNC. Cordoba, Argentina.

193. May 4–6, Speaker, XIV Congreso Regional de Física Estadística y Aplicaciones a la Materia Condensada (XIV TREFEMAC 2016). Bariloche, Argentina.

194. July 14–16, Keynote Speaker, Sociedad Española de Psicofisiología y Neurociencia Cognitiva y Afectiva (SEPNECA). Univ. Islas Baleares, Palma de Mallorca, Spain.

195. September 15. Public Lecture at the Science Fair, IPET 50 Emilio F. Olmos, Organized by the "Fundación N. Losano para la Capacitación y Desarrollo", San Francisco, Argentina.

196. October 16, Keynote Speaker, "Six decades of criticality". NIMH Sponsored Conference on Critical Brain Dynamics. Natcher Auditorium. NIH Campus, Bethesda, USA

197. October 24, Invited Speaker, "Brain physics and mind dynamics" . NIMH, Bethesda, USA

2017

198. April 19. Invited Speaker, Protein Biophysics at the End of the World, FCEN/UBA. Buenos Aires, Argentina.

199. April 20. Invited Speaker, "II Jornadas de Investigación IMMF 2017, Una mirada multidisciplinaria de la ciencia biomédica" . Instituto MM Ferreyra, UNC/Conicet. Cordoba, Argentina.

200. June 5. Plenary Speaker. 9th IUPAP International Conference on Biological Physics. Rio de Janeiro, Brazil.

201. September, 3–8, Invited Speaker, 30th Marian Smoluchowski Symposium on Statistical Physics. Krakow, Poland.

202. September 25–27, Plenary Speaker, SAN 2017 Sociedad Argentina de Neurociencia Meeting, Mar del Plata. Argentina.

203. October 3, Invited Seminar, IIB-INTECH/Universidad de San Martín. Argentina.

204. November 17. Invited Lecture at the Introducción a la neurociencia computacional y teórica" course of Prof. Francisco Tamarit FAMAF. Univ. Nacional de Córdoba, Argentina.

205. November 8. "El mundo y tu cerebro: Como te lo cambian las nuevas tecnologías". Actividad de la Semana de la Ciudadanía y la Alfabetización Digital de ChicosNet. UNSAM, Argentina.

2018

206. March 19–23, 2018: Invited Speaker, AMCOS (Analysis and Modeling of Complex Oscillatory Systems). (Barcelona, Spain)

207. March 28, 2018: Invited Speaker, Colloquium at SISSA. Trieste, (Italy)

208. April 23–27, 2018: Invited Speaker, Workshop "Predicting Transitions in Complex Systems" Max-Planck Institute for the Physics of Complex Systems (MPI-PKS). Dresden, Germany.

209. May 12, 2018: Invited Lecture. "Bioscopio: charlemos de ciencia" program of the Museo Argentino de Ciencias Naturales Bernardino Rivadavia CONICET, Buenos Aires, Argentina.

210. May 28, 2018: Invited Lecture, Instituto Tecnológico de Buenos Aires. (ITBA) Sede Central del ITBA. (Buenos Aires, Argentina)

211. June 11, 2018: Invited Speaker "Complexity vis a vis Creativity" in Ciencia, Tecnología y Sociedad: Creatividad e innovación basada en el conocimiento. Organized by Penco/Conicet. Buenos Aires, Argentina.

212. June 15–23, 2018: Invited Speaker, Three Lectures at the Cracow School of Theoretical Physics "Neuroscience: Machine learning meets fundamental theory", Zakopane, Poland.

213. June 25, 2018: Invited Seminar, Kavli Institute of Neuroscience, Trondheim. Norway.

214. July 9–13, 2018:Invited Plenary Speaker,UPON 2018, 8th International Conference on Unsolved Problems on Noise. Gdansk. Poland.

215. October 8–12,2018: Invited Plenary Speaker, "Spintronics meets Neuromorphics" SPICE-Workshop at the Spin Phenomena Interdisciplinary Center (SPICE) of the Johannes Gutenberg University (Mainz, Germany)

216. November 26–30, 2018: Invited Plenary Speaker, "Life at the edge: complexity and criticality in biological function" 5th "Dynamics Days Latin America and the Caribbean" (DDays LAC 2018). Punta del Este, Uruguay.

2019

217. January 7–26, 2019: Invited Plenary Speaker,Three Lectures at the 5th Latin–American Summer School in Computational Neuroscience, LACONEU 2019 - Instituto de Sistemas Complejos de Valparaíso. Valparaíso, Chile.

218. February 22-26, 2019: Invited Speaker, H2O (Horizontes Humanos en Observación) by H2O (Human Horizons Observatory) Art-Science Summit organized by British Council, Centro de Investigación de Arte y Ciencia de la Universidad Nacional de San Martín, Secretaría de Cultura de Argentina, Centro Cultural San Martín, Fundación INVAP.

219. July 3–5, 2019: Invited Speaker, Workshop on Statistical Mechanics of Swarming Behaviour (Satellite meeting of StatPhys27) CCT-CONICET, La Plata, Argentina.

220. July 8–12, 2019: Satellite Workshop at UNSAM. IUPAP International Conference on Statistical Physics (StatPhys27) Buenos Aires, Argentina.

221. October 22-26, 2019: Invited Plenary Speaker Latin American Workshop on Nonlinear Phenomena, LAWNP12, La Paz Bolivia

222. November 18, 2019: Invited Colloquium FAMAF. Univ. Nacional de Córdoba, Argentina.

2020

223. February 6, 2020: Lecturer and Organizer, Complexity Workshop. Mercedes, Buenos Aires, Argentina.

224. May 25, 2020: Invited Tele-conference. "Brain thermodynamics". Universidad Veracruzana, Xalapa, Mexico.

225. September 21-23, Reunion de la Asociacion Fisica Argentina, Argentina.

226. Oct. 6-8th, Brain Criticality Virtual Meeting, braincriticality.org

227. October 23, Virtual Seminar, Brain Space Initiative (BSI) An equal opportunity outreach program for researchers and students across the world.

2021

228. September 12-15, "1981-2021: Forty years of Stochastic Resonance", Honoring Professor Giorgio Parisi, Perugia, (Italy)

229. September 27, "The dynamic of the gut microbiome". 34th Marian Smoluchowski Symposium on Statistical Physics. Krakow, Poland.

230. September 30, Invited Speaker, "Complexity & Criticality in Brain function". Special lecture BIONN Network. Jagiellonian University. Krakow, Poland.

231. October 6, Invited Speaker, "Brain criticality, update on the latest evidence". Workshop on Brain-inspired computing and simulations. Turówka Conference Center (Wieliczka) & Jagiellonian University. Krakow, Poland.

232. November, 17-19. Invited Speaker, "La complejidad cerebral explorada desde la física estadística y los fenómenos críticos, Taller Multidisciplinario de neurociencias y redes neuronales 2021" Organized by Pablo Rudomin, Ranier Gutiérrez & Hugo Merchant. El Colegio Nacional. DF, Mexico.

233. November 23-25, Lecturer and Organizer, Complexity Workshop. Mercedes, Buenos Aires, Argentina.

2022

234. April-June, "Ten lectures on complexity & criticality in biological sciences" Tuesdays at the Jagiellonian University. Krakow, Poland.

235. June 3, Invited Conference "Why do we need a brain at all?" Polish Academy of Sciences, Krakow, Poland.

236. September 5-8, Invited Speaker Workshop "Neurotronics: Bio-inspired Information Pathways" Kiel University, Germany

237. September 12-16, Invited Speaker "AMALEA - Advances in machine learning". International Workshop, Cetraro, Italy,

238. September 17-21, Invited Speaker, 35th Marian Smoluchowski Symposium on Statistical Physics. Krakow, Poland.

239. September 26-29, Invited Speaker, XX Curso Boliviano de Sistemas Complejos. Universidad Mayor de San Andrés, Carrera de Física, La Paz, Bolivia.

240. November 7-9, Invited Speaker, Criticality in Neural Systems 2022: Collective Behavior, Synchronization, and Complexity. National Institutes of Health, (NIH), Bethesda, MD, USA.

    2023

241. January 7-9 Invited Speaker, "Computation, Criticality and Complexity", USyd University of Sidney, Australia. (declined for scheduling conflict)

242. February 27- March 4. Invited Speaker "Neural Coding 2023" - Piriapolis, Uruguay

243. July 11-14, Invited Lecture, Center for Nonlinear Science. Los Alamos National Lab, Los Alamos, New Mexico, USA .

244. July 17-23, Invited Lectures "Computational Neuroscience Academy", Jagiellonian University, Faculty of Physics, Astronomy and Applied Computer Science, Krakow, Poland.

    2024

245. June 3-7, Keynote Speaker, "UPoN'24': 9th International Conference on Unsolved Problems of Noise." Obuda University, Budapest, Hungary.