

# JUAN M. DURÁN

## PERSONAL INFORMATION

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<i>e-Mail</i>	j.m.duran@tudelft.nl – juanduran@gmail.com
<i>Website</i>	juanmduran.net
<i>Affiliation</i>	Faculty of Technology, Policy and Management - TU Delft
<i>AOS:</i>	Philosophy of Science - History of Technology - Ethics of Technology and Computer Ethics - Philosophy of Computer Science - Computer Simulations
<i>AOC:</i>	Philosophy of Technology - History of Science - Logic and Critical Thinking - Epistemology - Philosophy of Mind - Metaphysics

## EMPLOYMENT

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<i>Sep.18 –</i>	<i>Lecturer</i> - TU Delft University - Faculty of Technology, Policy and Management
<i>Feb.16 –</i> <i>Aug.18</i>	<i>Research associate</i> - University of Stuttgart - HLRS - Department of Philosophy of Science & Technology of Computer Simulation <sup>1</sup>
<i>2014 – 2016</i>	<i>Adjunct Professor</i> - UNC - Argentina
<i>2014 – 2016</i>	<i>Post-doc</i> - CONICET - Argentina
<i>2009 – 2012</i>	<i>Junior research associate</i> - University of Stuttgart - Stuttgart Research Centre for Simulation Technology and Cluster of Excellence (SRC-SimTech) <sup>2</sup>
<i>2008 – 2009</i>	<i>Assistant Professor</i> - College “Simón Bolívar”, Argentina
<i>2008 – 2009</i>	<i>Adjunct Professor</i> - Faculty of Psychology, Universidad Nacional de Córdoba, Argentina

## EDUCATION

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<i>2014 – 2016</i>	<i>Post-doc</i> - Universidad Nacional de Córdoba (UNC) - National Scientific and Technical Research Council (CONICET) - Argentina Project: <i>A philosophical study on the explanatory power of computer simulations</i>
<i>2009 – 2013</i>	<i>PhD. Philosophy - Excellence Initiative</i> - SRC-SimTech - University of Stuttgart - Germany Thesis: <i>Explaining simulated phenomena. A defense of the epistemic power of computer simulations.</i>
<i>2008</i>	<i>PhD. candidate Philosophy</i> - UNC - Argentina <sup>3</sup>
<i>2003 – 2007</i>	<i>Licenciado philosophy</i> - Facultad de Filosofía y Humanidades (FFyH) - UNC - Argentina <sup>4</sup>

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<sup>1</sup> Funded by the Ministerium für Wissenschaft, Forschung und Kunst Baden-Württemberg (MWK)

<sup>2</sup> Funded by the Deutsche Forschungsgemeinschaft (DFG).

<sup>3</sup> Declined to take up the junior research associate position at SRC-SimTech.

Thesis: *Modelos científicos y simulaciones computacionales*

2002 – 2003 *Research student.* National Space Activities Commission (CONAE). Gulich Institute, Argentina

1998 – 2002 *B.Sc. Computer science* - UNC - Argentina

#### AWARDS AND FELLOWSHIPS

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- May.15 – Nov.15 *Senior fellow* - Institute for Philosophy - University of Duisburg-Essen - Dr. Raphael van Riel.
- Feb.12 – May.12 *Junior fellow* - Tilburg Center for Logic and Philosophy of Science - Tilburg University - Prof. Dr. Stephan Hartmann, Prof. Dr. Jan Sprenger.
- Sep.10 – Mar.11 *Visiting scholar* - Department of Philosophy - University of Virginia - Prof. Dr. Paul Humphreys
- 2007 *Award: University Award 2007* - First Class Honors - School of Philosophy - UNC - GPA: 9.28/10
- Oct.01 – May.02 *Visiting scholar* - Department of computer science - Asociación de Universidades “Grupo Montevideo” - Universidade Federal do Paraná - Brazil.

#### GRANTS

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##### Research Grants

- May.15 – Nov.15 *A theory of explanation for computer simulations*  
Institute for Philosophy - University of Duisburg-Essen. 400 €,  
National Scientific and Technical Research Council (Argentina) 8,000 €.
- Feb.12 – May.12 *The use of computer simulations as evidence and explanation of phenomena*  
Tilburg Center for Logic and Philosophy of Science - Tilburg University - International call for two Junior Fellowships (2 positions - 50 applicants).

##### Study Grants

- 2014 – 2016 *Postdoctoral research grant* - CONICET - UNC - ca. u\$s: 40,000
- 2009 – 2014 *Doctoral research grant* - CONICET - UNC - ca. u\$s: 65,000  
Declined to take up junior research associate position at SRC-SimTech
- 2008 – 2009 *Doctoral research grant* - Secretaría de Ciencia y Tecnología (SECyT) - UNC - ca. u\$s: 7,000

#### PUBLICATIONS

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##### Peer-Reviewed Articles

- 2018 (A.9) “Grounds for trust: Essential Epistemic Opacity and Computational Reliabilism” *Minds and Machines* DOI: 10.1007/s11023-018-9481-6.

<sup>4</sup> The “Licenciatura” degree represents 5 years of study with dissertation. In Germany it is equivalent to both, a B.A. and an M.A. combined.

- 2018 (A.8) "Ciencia de la computación y filosofía: unidades de análisis del software" *Principia: An International Journal of Epistemology*, 22(2): 203–227.
- 2017 (A.7) "Varying the explanatory span: scientific explanation in computer simulations" *International Studies in the Philosophy of Science*. 31(1):27–45.  
DOI: 10.1080/02698595.2017.1370929
- 2017 (A.6) "Eric Winsberg y la epistemología de las simulaciones computacionales". *Argumentos de Razón Técnica*. 20:87–101.
- 2017 (A.5) "Simulaciones computacionales: un análisis de dos concepciones antagónicas". *Principia: An International Journal of Epistemology*. 21(1):125–140.  
DOI: 10.5007/1808-1711.2017v21n1p125
- 2016 (A.4) "Reid on causation and scientific explanation". *The Journal of Scottish Philosophy*. Authors: Barrantes, M. and Durán, J. M., 14(1): 51-67.  
DOI: 10.3366/jsp.2016.0113
- 2016 (A.3) "La especificidad de la creencia religiosa, algo distinto de la razón. Wittgenstein y los 'juegos de lenguaje'". *Revista de Filosofía Aurora*., 28(43):279-294.  
DOI: 10.7213/aurora.28.043.AO01
- 2015 (A.2) "Nociones de simulación computacional: simulaciones y modelos científicos". *Argumentos de Razón Técnica*. 18:87-110.
- 2007 (A.1) "Reinterpretando a Hertz. Algunas consideraciones en torno a una lectura de Hertz", *Lektón. Revista de Filosofía*. 1(1):61-73.

### Authorship Books

- 2018 (D.2) "Computer simulations in science and engineering. Concepts - Practices - Perspectives". Springer Verlag. The Frontiers Collection. ISBN: 978-3-319-90880-9.
- 2014 (D.1) "Explaining simulated phenomena. A defense of the epistemic power of computer simulations." *Ph.D. dissertation Universität Stuttgart*. Germany.  
URL: <http://elib.uni-stuttgart.de/opus/volltexte/2014/9265>

### Editions

- 2013 (E.1) "Computer simulations and the changing face of scientific experimentation", *Cambridge Scholars Publishing*. UK. Editors: Durán, J. M. and Arnold, E.

### Peer-Reviewed Chapters

- 2017 (C.10) "Varieties of simulations: from the analogue to the digital". In *The science and Art of Simulation I. Exploring - Understanding - Knowing*. Resch, M., Kaminski, A., and Gehring, P. (eds.). pp. 175-192. Springer. ISBN: 978-3-319-55761-8.
- 2017 (C.9) "Computer simulations as a technological singularity in the empirical sciences". In *The Technological Singularity*, Callaghan, V., Miller, J., Yampolskiy, R., Armstrong, S. (eds.). pp. 167-179. Springer. ISBN: 978-3-662-54031-2.
- 2015 (C.8) "Simulaciones computacionales en la literatura filosófica actual". In *Epistemología y Prácticas Científicas* Rodríguez, V., Velasco, M., García, P. (eds.), Imprenta de la Facultad de Filosofía y Humanidades, Argentina. pp. 9-40.

- 2015 (C.7) "Simulaciones computacionales como singularidad en las ciencias empíricas". In *Filosofía e Historia de la Ciencia en el Cono Sur*. Ahumada, J., Venturelli, N., y Chibeni, S. (eds.). AFIHC / CIFYH, Argentina. pp. 223-232.
- 2013 (C.6) "The use of the 'materiality argument' in the literature on computer simulations". In Durán J. M. and Arnold, E. (eds), *Computer Simulations and the Changing Face of Scientific Experimentation*, Cambridge Scholars Publishing. UK. pp. 76-98.
- 2011 (C.5) "Experimentación, materialidad y simulaciones computacionales", in Torrano, A.; Passos Videira, A. (eds), *Representación en Ciencia y Arte*, Editorial Brujas. Argentina. Authors: García, P., Durán, J. M., Ahumada, J., pp. 73-82
- 2010 (C.4) "Computer simulations and traditional experimentation: from a material point of view", in Vallverdú, J. (ed), *Thinking Machines and the Philosophy of Computer Science: Concepts and Principles*. pp. 294-311. Editorial IGI Global. USA. ISBN: 978-1616920142.
- 2010 (C.3) "El diseño de simulaciones digitales: una perspectiva desde las prácticas científicas", in García, P.; Massolo, A. (eds), *Epistemología e Historia de la Ciencia: Selección de Trabajos de las XX Jornadas*, Imprenta de la Facultad de Filosofía y Humanidades. Argentina. Authors: Durán, J. M., Lodeyro, P., Bozzoli, M. pp. 204-210.
- 2009 (C.2) "Grados de materialidad y simulaciones computacionales", in Letzen, D.; Lodeyro, P. (eds), *Epistemología e Historia de la Ciencia: Selección de Trabajos de las XIX Jornadas. Vol 15*, Imprenta de la Facultad de Filosofía y Humanidades. Argentina. pp 171-177.
- 2008 (C.1) "Diagramas Hertzianos: lecturas de una interpretación", in Minhot, L.; Olivé, L. (eds), *Representación en la Ciencia y en el Arte*, Editorial Brujas. Argentina.

### Reviews

- 2016 (B.2) "Observation and Objectivity: Two Conflicting Notions at the Basis of the Circularity Argument". *Constructivist Foundations*. 12(1):220–221.
- 2016 (B.1) "The practice turn and its effect on science studies". *Metascience*. 25(2):285–288. DOI: 10.1007/s11016-016-0085-6

### Proceedings, Magazines, and Newsletters

- 2016 (F.7) "Entrenching the epistemological side of computer simulations: explanation and unification". In Perdomo, I., Blanco, A., and Martínez, C. (eds), *Boletín de la Sociedad de Lógica, Metodología y Filosofía de la Ciencia en España.*, pp. 25-27. ISSN: 1577-2292.
- 2016 (F.6) "TranSim: bringing philosophy and computer simulations together". *InSiDE. Innovative Supercomputing in Deutschland*. 14(2):33-37. Authors: Kaminski, A., Durán, J. M.
- 2013 (F.5) "A brief overview of the philosophical study of computer simulations". *American Philosophical Association Newsletter on Philosophy and Computers*. 13(1):38-46.
- 2013 (F.4) "Introduction". In Durán J. M. and Arnold, E. (eds), *Computer simulations and the changing face of scientific experimentation*, Cambridge Scholars Publishing. UK. Authors: Durán, J. M. and Arnold, E., pp. 1-8.
- 2011 (F.3) "The limits of computer simulations as epistemic tools". In Ess, C.; Hagengruber, R. (eds), *IA-CAP 2011 - The computational turn: Past, presents, futures?*, Mv-Wissenschaft, Münster, Århus University. Denmark., pp. 40-42.

- 2010 (F.2) "Content aggregation, visualization and emergent properties in computer simulations". *SIGRAD 2010 – Content aggregation and visualization*, Mälardalen University. Sweden. Authors: Dodig-Crnkovic, G., Durán, J. M., Slutej, D., pp. 77-83.
- 2009 (F.1) "The measure of computer simulations". *Computing and Philosophy – CaP Course*. Gordana Dodig-Crnkovic. Mälardalen University. School of Innovation, Design and Engineering. Sweden.

### Articles under review and in preparation

- under review* (G.8) Paper where I argue for the novelty of computer simulations in the philosophy of science
- under review* (G.7) Paper where I show the historical and philosophical roots of computer simulations
- under review* (G.6) Paper where we discuss the presence and implications of 'dark data' in High Performance Computing facilities. We also argue for a new position, namely, the Scientists Data Officer (SDO). We discuss the technical and ethical dimensions of the SDO. Paper in collaboration. J.M.D. as second author.
- under review* (G.5) Co-authored paper where we connect Kitcher's Well-Ordered Science with some actual Participatory Technology Assessment carried out at NASA. J.M.D. as leading author.
- under review* (G.4) "The ethics of climate simulations: the case of an F3 type tornado"
- in preparation* (G.3) "Exploring the unexplorable: the case of computer simulations in medicine"
- in preparation* (G.2) "Reliability and explanation in highly unrealistic medical simulations"
- in preparation* (G.1) "Prospects for an ethics of computer simulations"

### TALKS

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#### Keynote Speaker

- Jul.18 *The ethics of computer simulations: challenges and perspectives for the future of science and technology*. 8<sup>th</sup> International Conference on Simulation and Modeling. Methodologies, Technologies, and Applications. Porto, Portugal.
- Nov.17 *El giro computacional en la filosofía de la ciencia*. XIX Foro Interno de Filosofía and III Congreso de Filósofos del Caribe - Universidad del Atlántico. Colombia.

#### Invited Talks

- Mar.18 *Una aproximación a la historia y filosofía de las simulaciones computacionales*, Escuela de Filosofía y Humanidades. Universidad Nacional de Córdoba. Argentina.
- Apr.18 *Meet the author*. Round table to discuss my forthcoming book: *Computer simulations in science and engineering. Concepts - Practices - Perspectives*, Springer Verlag. Escuela de Filosofía y Humanidades. Universidad Nacional de Córdoba. Argentina.
- Mar.18 *Understanding the role of computational methods in science*, Department of Mathematics. James Madison University. USA.
- Mar.18 *Computer simulations: the history and philosophy of a concept*, Department of Philosophy.

University of Virginia. USA.

Jan.17 *Making the difference more visible: on mathematical models and simulation models*, Karlsruher Institut für Technologie. Germany.

Nov.16 *The discreet charm of contemporary scientific practice: Big Data and the problem of causality. The scientific practice of Big Data*. HLRS, University of Stuttgart.

Oct.15 *Philosophy of computer simulations or philosophy of science (focused on computer simulations)?*. HLRS, University of Stuttgart.

May.12 *Historical introduction and overview of multi-scale modeling*. Graduate School SRC-SimTech, University of Stuttgart

Jun.11 *Why computer simulations are epistemic devices*, Institut d'Histoire et des Philosophie des Sciences et des Techniques, University Panthéon-Sorbonne, France

Jun.11 *Epistemological status of simulations*, HLRS. University of Stuttgart

### Accepted Refereed Presentations

Nov.18 *Grounds for trust: Essential Epistemic Opacity and Computational Reliabilism*. Science and Art of Simulation '18. University of Stuttgart. Germany.  
with N. Formanek

May.18 *On the explanatory force of computer simulations*. Canadian Society for the History and Philosophy of Science. University of Regina. Canada.  
accepted – unable to attend

Mar.18 *The historical and philosophical roots of computer simulations*. Models and Simulations 8. University of South Carolina. USA.

Oct.17 *Computer simulations: the history of a concept and its philosophical footprint*. 4th International Conference on the History and Philosophy of Computing. Masaryk University. Czech Republic.

Jun.17 *A survey on computer simulations and mathematical models*. SILFS 2017 – Triennial International Conference of the Italian Society for Logic and Philosophy of Science. University of Bologna. Italy.

Jul.17 *Un análisis de la arquitectura de modelos simulacionales*. IV Congreso Iberoamericano de Filosofía de la Ciencia y la Tecnología. Cultura Científica y Cultura Tecnológica. Universidad de Salamanca. Spain.  
unable to attend

May.16 *Computer simulations and big-data science: reviewing similarities and differences*. The Forum on Philosophy, Engineering & Technology (fPET), Friedrich-Alexander University Erlangen-Nürnberg. Germany.

Jun.16 *Entrenching the epistemological side of computer simulations: explanation and unification*. III Congreso de Graduados de la Sociedad de Lógica, Metodología y Filosofía de la Ciencia en España. Universidad de Valencia. Spain.

Sep.16 *Explaining simulated phenomena. A defense of the epistemic power of computer simulation*. On simulation in science. Media Culture of Computer Simulations (MECS). Leuphana University Lüneburg. Germany.

Jul.15 *Summer School: Scientific explanation and computer simulations*, USS-SWC 2015. University of Vienna. Austria.

- Aug.15 *Variedades de simulación(es)*, AFRA 2015. Universidad Nacional del Litoral. Argentina. Authors: Durán, J. M. and Ilcic, A.
- Sep.15 *Varying the explanatory span: scientific explanation in computer simulations*, German Society for Analytic Philosophy. Osnabrück University, Germany
- Aug.15 *Some philosophical considerations of the past, present, and future of computer simulations*, Conference on Experimenting with New Technologies in Society - TU Delft. The Netherlands.  
unable to attend
- Sep.14 *Simulaciones computacionales como singularidad en las ciencias empíricas*, IX Encuentro de Filosofía de la Ciencia del Cono Sur - XXV Jornadas de Epistemología e Historia de la Ciencia, Universidad Nacional de Córdoba. Argentina
- Sep.14 *Breve reseña sobre la reciente literatura filosófica en materia de simulaciones computacionales*, IX Encuentro de Filosofía de la Ciencia del Cono Sur - XXV Jornadas de Epistemología e Historia de la Ciencia, Universidad Nacional de Córdoba. Argentina.
- Oct.13 *Explicación de resultados de simulaciones computacionales: un análisis desde la perspectiva unificacionista*, Coloquio Internacional: Lenguaje, Conocimiento, y Acción. Universidad Nacional de Rosario. Argentina.
- Oct.13 *Las simulaciones computacionales como explicación científica*, XXIV Jornadas de Epistemología e Historia de la Ciencia. Universidad Nacional de Córdoba. Argentina.
- Jul.12 *Explanation in computer simulation results: towards its conceptualization*, 5th Models and simulations conference, University of Helsinki. Finland.
- Apr.12 *On the epistemic virtues of computer simulations in the form of explanation of results*, The Future of Philosophy of Science, Tilburg University. The Netherlands.
- Jul.11 *Experiments in-silico?* Interdisciplinary Workshop with Javier Blanco: Ontological, Epistemological, and Methodological Aspects of Computer Science, University of Stuttgart. Germany.
- Jul.11 *The limits of computer simulations as epistemic tools*, First International Conference of IACAP, Aarhus University. Denmark.
- Nov.10 *Content aggregation, visualization and emergent properties in computer simulations*, Crnkovic, G. , Durán, J. M., Slutej, D. SIGRAD 2010, Mälardalen University. Sweden.
- Oct.10 *A new approach towards the 'materiality problem' of computer simulations*, 26th Boulder Conference on the History and Philosophy of Science, University of Colorado at Boulder. USA.
- Oct.10 *The materiality problem in the dilemma of computer simulations*, Bochum-Lausanne-Tilburg Graduate School: Philosophy of Language, Mind and Science, Tilburg University. The Netherlands.
- Jul.09 *Computer simulations and traditional experimentation: from a material point of view*, VII European Conference on Computing and Philosophy, University of Barcelona. Spain.
- Jul.09 *Computer models: from a contemporary point of view*, I Latin American Symposium on Computer and Philosophy, Universidad Nacional Autónoma de México. Mexico.
- Oct.09 *Computer models revisited*, Modeling Spaces – Modifying Societies, University of Darmstadt. Germany.
- 2009 *Visualización y materialidad en simulaciones*, In collaboration. IV Simposio Internacional



- Representación en la Ciencia y en el Arte, Universidad Nacional de Córdoba. Argentina.
- 2009 *El diseño de simulaciones digitales: una perspectiva desde las prácticas científicas*, In collaboration. XX Jornadas de Epistemología e Historia de la Ciencia, Universidad Nacional de Córdoba. Argentina. Authors: Durán, J. M., Lodeyro, P., Bozzoli, M.
- Oct.08 *Simulaciones vs simulaciones computacionales*, IX Coloquios Internacionales Bariloche. Universidad del Comahue. Argentina.
- Aug.08 *Aspectos ontológicos de las simulaciones computacionales: ¿Un problema al que debemos prestar atención?*, X Conference Rolando Chuaqui Kettlun, Pontificia Universidad Católica de Chile. Chile.
- Nov.08 *Grados de materialidad y simulaciones computacionales*, XIX Jornadas de Epistemología e Historia de la Ciencia. Universidad Nacional de Córdoba. Argentina.
- May.08 *Algunas consideraciones sobre el problema ontológico de las simulaciones computacionales*, V Jornadas de Filosofía Teórica. Universidad Nacional de Córdoba. Argentina.
- Sep.08 *Galileo y la herencia de modelos idealizados en ciencia*, XIV Congreso Nacional de Filosofía de la Asociación Filosófica de la República Argentina, Universidad Nacional de Tucumán. Argentina.
- 2007 *Diagramas Hertzianos: lecturas de una interpretación*, III Simposio Internacional Representación en la Ciencia y en el Arte, Universidad Nacional de Córdoba. Argentina.
- Jun.06 *La especificidad de la creencia religiosa: algo distinto a la razón*, III Conferencia de filosofía teórica: Conocimiento, normatividad y acción, Universidad Nacional de Córdoba. Argentina.

#### COLLABORATION IN RESEARCH NETWORKS

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- 2018 – 2021  
research associate *Simulaciones computacionales y experimentación desde la perspectiva de las prácticas científicas: una aproximación epistemológica y metodológica PICT-2016-1524*. Dr. Pío García, CIFFyH, UNC, Argentina. AR\$: 504.000 .
- 2017 – today *Ethics of Computer Simulations* with Prof. Dr. Tuncer Ören (University of Ottawa), Canada.
- 2016 – 2017 *Participatory Technology Assessment* with Zachary Pirtle, M.A. - National Aeronautics and Space Administration (NASA), USA.
- 2015 – 2017  
principal inv. *Filosofía de la explicación científica*. with Manuel Barrantes, M.A. (University of Virginia, USA) - CIFFyH, UNC, Argentina. u\$: 1,000
- 2015 – 2016  
research associate *Filosofía de las prácticas científicas: computación, simulación y experimentación*. Dr. Pío García, Centro de Estudios Avanzados (CEA), UNC, Argentina. u\$: 5,000
- 2012 – 2015  
research associate *Las prácticas científicas experimentales y observacionales: enfoque epistemológico desde las simulaciones computacionales y modelización matemática*. Prof. Víctor Rodríguez. Scientific and Technological Research Fund (FONCyT), UNC, Argentina. u\$: 60,000.
- 2012 – 2015  
research associate *Filosofía de las prácticas científicas: computación, simulación y experimentación* Dr. Pío García, Dr. Marisa Velasco, SECyT, UNC, Argentina. u\$: 10,000
- 2010 – 2012  
research assistant *Scientific network 'atmosphere & algorithms'* Dr. Gabriele Gramelsberger. Deutsche Forschungsgemeinschaft (DFG), Universität Stuttgart, Germany.



2010 – 2012 research assistant	<i>Simulaciones computacionales e instrumentos científicos: materialidad, visualización y ampliación cognitiva</i> Dr. Pío García. SECyT, UNC, Argentina.
2010 – 2012 research assistant	<i>Filosofía de las practicas científicas: simulaciones computacionales.</i> Dr. Pío García. CEA, UNC, Argentina
2008 – 2011 research assistant	<i>Filosofía y ciencia computacional: epsitemología, ontología y metodología.</i> Dr. Javier Blanco, Dr. Pío García. Ministry of Science and Technology of Córdoba, UNC, Argentina. u\$: 10,000.
2008 – 2010 research assistant	<i>Filosofía de las prácticas científicas: heurísticas, simulación y experimentación.</i> Prof. Víctor Rodríguez, Dra. Marisa Velasco. CIFFyH, UNC, Argentina. u\$: 1,000
2007 – 2009 reseach student	<i>Simulaciones computacionales y representación en el contexto de las prácticas científicas.</i> Dr. José Ahumada, Dr. Pío García, CIFFyH, SECyT, UNC, Argentina. u\$: 1,000
2006 – 2008 research student	<i>Simulaciones computacionales y representación en el contexto de las prácticas científicas: aspectos epistemológicos.</i> Dr. José Ahumada, Dr. Pío García. SECyT, UNC, Argentina. u\$: 5,000

## TEACHING

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### English

WS 2018 Lecturer	<i>Research design. R1.A1.</i> TU Delft. Graduate School
WS 2018 Lecturer	<i>Creative &amp; critical thinking for engineering. R2.D1.</i> TU Delft. Graduate School
WS 2018 Tutor	<i>Ethics &amp; engineering. WM0320TU.</i> TU Delft. Graduate School
WS 2018 Tutor	<i>IT and values WM033IT.</i> TU Delft. Graduate School
WS 2018 Tutor	<i>Philosophy of science WM0349WB .</i> TU Delft. Graduate School
WS 2018 Tutor	<i>Critical reflections on technology UD2010.</i> TU Delft. Graduate School
SS 2018 Lecturer	<i>Ethics of technology.</i> University of Stuttgart. Undergraduate course.
WS 2017 Lecturer	<i>Philosophy of computer science.</i> University of Stuttgart. Undergraduate course.
SS 2017 Lecturer	<i>Philosophy of computer science.</i> University of Stuttgart. Undergraduate course.
WS 2016 Lecturer	<i>Philosophy of scientific explanation.</i> University of Stuttgart. Postgraduate course.
WS 2009 Lecturer	<i>Philosophy of computer simulation.</i> Institute of Philosophy. University of Stuttgart. Undergraduate course.

## Spanish

- WS 2015 *Explicación científica.*  
Adjunct Professor. FFyH, UNC. Postgraduate seminar.
- SS 2014 *Filosofía de las simulaciones computacionales.*  
Adjunct Professor. FFyH, UNC. Postgraduate course.
- 2014 – 2016 *Filosofía de la ciencia.*  
Adjunct Professor. FFyH, UNC. Undergraduate course.
- 2008 – 2010 *Lógica y resolución de problemas (Logic and critical thinking).*  
Assistant Professor (tenured). College “Simón Bolívar”, Argentina. Undergraduate course.
- 2008 – 2009 *Filosofía de la ciencia.*  
Adjunct Professor. FFyH, UNC. Undergraduate course.
- 2008 – 2009 *Problemas epistemológicos de la Psicología.*  
Adjunct Professor. Facultad de Psicología. UNC. Undergraduate course.
- 2007 – 2009 *Problemas epistemológicos de la Psicología.*  
Online Instructor. Facultad de Psicología. UNC. Undergraduate course.
- 2005 – 2007 *Metafísica.*  
Teacher Assistant. FFyH, UNC. Undergraduate course.
- 2005 – 2007 *Problemas epistemológicos de la Psicología.*  
Teacher Assistant. Facultad de Psicología. UNC. Undergraduate course.
- 2002 – 2003 *Algoritmos y estructuras de datos I.*  
Student Assistant. Facultad de Matemática, Astronomía, Física y Computación. UNC. Undergraduate course.
- 2001 – 2002 *Introducción a la lógica y la computación.*  
Student Assistant. Facultad de Matemática, Astronomía, Física y Computación. UNC. Undergraduate course.

## STUDENT SUPERVISION

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- 2016–2018 *Verónica Inés Pedersen.* Facultad de Humanidades, Universidad Nacional del Nordeste, Argentina.  
*Master of Arts* Thesis: *Las simulaciones computacionales como nuevo nicho de producción científica.*

## PROFESSIONAL SERVICE

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### Reviewer

European Journal for Philosophy of Science; Scientific Journal Guillermo de Ockham; Science and Art of Simulation 2015; XXV Jornadas de epistemología e historia de la ciencia - IX Encuentro AFHIC.

*External reviewer* - Programa de Filosofía de la Ciencia. Universidad Nacional Autónoma de México.

### Memberships and Advisory

- 2018 – today External advisory *ECienTec* - Educación en Ciencias y Tecnologías. Universidad Nacional del Centro de la Provincia de Buenos Aires.
- 2017 – today Editorial advisory *History and Philosophy of Science* - Cambridge Scholars Publishing.
- 2016 – today Member of the editorial board (Redaktionsmitglied) *Jahrbuch Technikphilosophie*

### Departmental duties

- 2015 – 2018 Deputy. Department of Philosophy and Technology of Computer Simulations. HLRS. University of Stuttgart.

### Organization of Academic Events

- 2015 – 2018 Program committee member and chief organizer:  
yearly workshop *Workshop: The science and art of simulation (SAS)* HLRS, University of Stuttgart
- Jun.16 Organization *Tag der Wissenschaft* - HLRS, University of Stuttgart.
- 2015 Organization *Manuel Barrantes on "Explicación Contrafáctica en Ciencia y Matemáticas"* Centro de Investigaciones de Filosofía y Humanidades, UNC.
- 2011 Chair and program committee member *SimTech conference: computer simulations and the changing face of scientific experimentation*, SRC-SimTech, University of Stuttgart
- 2011 Chair and program committee member *SimTech workshop: interdisciplinary workshop with Prof. Dr. Javier Blanco*. SRC-SimTech, University of Stuttgart
- 2011 Chair, program committee member, and promoter of the *First Latinamerican Computer and Philosophy Symposium (LA-CAP)*. Universidad Nacional Autónoma de México, México. The LA-CAP started as the Latin-American branch of the IA-CAP the year before it become an unified international event.

### WORKSHOPS AND SUMMER SCHOOLS

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- 2017 Summer School: *Summer School: On Computer Simulation Methods*. High Performance Computing Center Stuttgart - University of Stuttgart.
- 2017 Winter School: *Varieties of Modeling in Technoscience: The Case of Synthetic Biology*. Technische Universität Darmstadt.
- 2016 Summer School: *On simulation in science*. Media Culture of Computer Simulations (MECS). Leuphana University Lüneburg.
- 2015 Summer School: *The computational turn. Simulation in science*. USS-SWC 2015. University of Vienna, Austria
- 2013 Summer School: *"The philosophical history of modern space-time theory"*, with Robert DiSalle. University of Tübingen, Germany
- 2012 Workshop: *The concept of multiscale*. Institute of Philosophy and Institute for Material Testing, Materials Science and Strength of Materials, University of Stuttgart

## ON-LINE EDUCATION PLATFORMS

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- 2015 *Chair and local administrator - Deutsches Forschungsnetz - Adobe Connect. Used in Workshop: The science and art of simulation.*
- 2005 – 2009 *Administrator and Lecturer e-Learning Moodle. Used in course Problemas epistemológicos de la psicología. UNC. Argentina.*

## ACTIVITIES IN COMPUTER SCIENCE

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- 2017 – today *Webmaster - Department of Philosophy of Science and Technology of Computer Simulations - HLRS - University of Stuttgart*
- 2017 – today *Webmaster - Commission for the History and Philosophy of Computing (HaPOC)*
- 2002 *Software engineering and machine learning on project Project Chamaleon. Evolutionary algorithms. Departamento de Informatica. Universidade Federal do Paraná - Brazil*
- 2002 *Parallel computing. Instituto de Altos Estudios Espaciales Mario Gulich. National Space Activities Commission. Argentina*
- 2002 *Data processing in radar. Instituto de Altos Estudios Espaciales Mario Gulich. National Space Activities Commission. Argentina*
- 2002 *Remote sensing. Instituto de Altos Estudios Espaciales Mario Gulich. National Space Activities Commission. Argentina*
- 2001 – 2002 *Artificial Intelligence. Departamento de Informatica. Universidade Federal do Paraná - Brazil*
- 2001 – 2002 *Compilers. Departamento de Informatica. Universidade Federal do Paraná - Brazil*
- 2001 – 2002 *Remote sensing. Departamento de Informatica. Universidade Federal do Paraná - Brazil*
- 2001 – 2002 *Computer graphics. Departamento de Informatica. Universidade Federal do Paraná - Brazil*
- 2000 *Learning Robots. Departamento de Computación. Escuelas de Ciencias Informáticas. Argentina*
- 2000 *Cybersecurity. Departamento de Computación. Escuelas de Ciencias Informáticas. Argentina*
- 1999 – 2001 *Mobile Technologies. BDNET. Córdoba. Argentina*

## LANGUAGES

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*Spanish: Mother tongue*

*English: Excellent (C2)*

*Portuguese: Excellent (C2)*

*German: Good (B1)*

## ACADEMIC REFERENCES

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References upon request

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