



FERNANDO D. STEFANI

Born in Buenos Aires, November 19th, 1975.

Married, 4 sons

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www.stefani-lab.ar

Fernando Stefani graduated with honors in Materials Engineering from the National University of San Martin (Buenos Aires) in 2001, followed by a *summa cum laude* Ph.D. in Chemistry from the Johannes Gutenberg University of Mainz, Germany, for work conducted at the Max-Planck-Institute for Polymer Research under Prof. Wolfgang Knoll. He then pursued postdoctoral research at the Institute of Photonic Sciences (ICFO) in Barcelona with Prof. Niek van Hulst, followed by an appointment as Assistant Professor in the Chair of Prof. Jochen Feldmann at the Ludwig-Maximilians-University of Munich.

In 2009, Dr. Stefani returned to Buenos Aires, where he joined the University of Buenos Aires as a Professor of Experimental Physics and became a Scientific Member of the National Scientific and Technical Research Council (CONICET). From 2011 to 2016 he run a Max-Planck Partner group together with Nobel laureate Prof. Stefan W. Hell. His current research focuses on the development and application of advanced fluorescence imaging, super-resolution microscopy and self-assembled nanophotonic devices.

Since his return to Argentina, Prof. Stefani has established an internationally recognized and regional leading research laboratory in nanophotonics and super-resolution microscopy. Under his guidance, more than 30 young researchers have launched successful careers in academia and high-tech industries. Prof. Stefani's has over 90 publications in top specialized journals like Nature Photonics, Light: Science & Applications and ACS Nano, as well as in multidisciplinary broad scope journals like Nature, Science and Nature Communications.

Prof. Stefani's work has been recognized with numerous awards, including the Otto Hahn Medal of the Max-Planck Society, the Georg Forster Research Award from the Alexander von Humboldt Foundation, the Houssay Prize, and the Konex Award which honored him as one of Argentina's 100 most important scientists of the decade 2012-2022. He is a member of the National Academy of Exact, Physical, and Natural Sciences of Argentina, and has served as a advisor to high-tech companies of Argentina and Germany, to universities and research centers of Argentina, Uruguay and Brazil, and to the National Congress of Argentina.

Buenos Aires, October 24th, 2025

CURRENT POSITIONS

Professor of Experimental Physics, Faculty for Exact and Natural Sciences, **University of Buenos Aires**

Principal Investigator, National Scientific and Technical Research Council (**CONICET**), Argentina

Director, Center for Bionanoscience Research (**CIBION-CONICET**), Buenos Aires, Argentina

FIELDS OF INTEREST

Bioimaging & biosensing
 Biological supramolecular structures
 Photophysics
 Single molecules and nanoparticles
 Nanophotonics and plasmonics
 Hybrid nano-bio-systems

EXPERTISE

Super-resolution fluorescence microscopy
 Single-molecule detection and spectroscopy
 Optical and photothermal manipulation
 Single-molecule (particle) tracking
 Molecular self-assembly
 Computer simulations

UNIVERSITY POSITIONS AND TEACHING

- | | |
|-------------------|---|
| 10.2019 – present | Full Professor of Experimental Physics
Faculty for Exact and Natural Sciences, Department of Physics
University of Buenos Aires, Argentina |
| 10.2009 – 09.2019 | Associate Professor of Experimental Physics
Faculty for Exact and Natural Sciences, Department of Physics
University of Buenos Aires, Argentina |
| 03.2008 – 09.2009 | Assistant Professor (Akademischer Rat auf Zeit)
Faculty of Physics, Chair of Prof. Dr. Jochen Feldmann
Ludwig-Maximilians-University Munich, Germany |

RESEARCH

- | | |
|-------------------|---|
| 12.2016 – present | Principal Investigator
National Scientific and Technical Research Council (CONICET), Argentina |
| 04.2011 – 04.2016 | Leader of a Max Planck Partner Group in association with Prof. Stefan W. Hell
Göttingen – Buenos Aires |
| 12.2012 – 11.2016 | Independent Investigator
National Scientific and Technical Research Council (CONICET), Argentina |
| 10.2009 – 11.2012 | Associate Investigator
National Scientific and Technical Research Council (CONICET), Argentina |
| 04.2006 – 02.2008 | Postdoc in the group of Prof. Dr. Niek van Hulst
Institute of Photonic Sciences (ICFO)- Barcelona, Spain |
| 04.2006 – 02.2008 | Postdoc in the group of Prof. Dr. Wolfgang Knoll
Max-Planck-Institut für Polymerforschung- Mainz, Germany |

MANAGEMENT

- 03.2022 – present **Director**
Center for Bionanoscience Research (CIBION- CONICET), Buenos Aires, Argentina
- 06.2022 – 05.2024 Member of the Executive Board
Fundación Argentina de Nanotecnología
- 02.2022 – present Member of the Editorial Advisory Board
ACS Photonics
- 03.2021 – present Member of the Executive Board of the *Asociación Argentina para el Progreso de las Ciencias* (AAPC), Buenos Aires, Argentina
- 07.2013 – 02.2022 Deputy Director
Center for Bionanoscience Research (CIBION- CONICET), Buenos Aires, Argentina

PUBLIC POLICY

- 06.2022 – 12-2023 Advisor to the President of the Science and Technology Commission
Chamber of Deputies, Office of Deputy Dr. Facundo Manes
National Congress of Argentina
- 05.2016 – 12.2019 Advisor to the President of the Science and Technology Commission
Chamber of Senators, Office of Senator Omar Perotti
National Congress of Argentina

SCIENTIFIC EVALUATION AND ADVISORY

Research proposal review. Evaluate and peer-review the scientific quality and feasibility of research proposals for leading international and regional funding bodies and universities, including the European Research Council, Alexander von Humboldt Foundation (Germany), University of Buenos Aires (Argentina), National Scientific and Technical Research Council (Argentina), Swiss National Science Foundation (SNSF), and Infrastructures en Biologie Santé et Agronomie (France).

Innovation Project Assessment. Provide advisory and technical due diligence to public innovation funding agencies and private venture capital funds, assessing the scientific strength, technical feasibility, and market potential of innovation projects.

High-Tech Industry Consulting. Provide scientific advisory and consulting services to high-tech companies and startups in areas including biosensing, diagnostics, optoelectronics, microscopy, and spectroscopy.

Research Institution Strategy. Advise national and international research institutions on evaluating and refining strategic research directions and portfolios. Institutions include: National Scientific and Technical Research Council (Argentina), Institute Pasteur Montevideo (Uruguay), and Universidad de Sao Paulo (Brazil).

Ph.D. IN NATURAL SCIENCES (CHEMISTRY) *summa cum laude*

07.2001 – 07.2004 “Confocal microscopy applied to the study of single entity fluorescence and light scattering”
Max-Planck-Institut für Polymerforschung & Johannes Gutenberg Universität
 Mainz, Germany. Director: Prof. Dr. Wolfgang Knoll

EDUCATION

07.1997 – 06.2001 **Materials Engineer- graduated with the highest honors**
Instituto de Tecnología Prof. Jorge Sabato
 Universidad Nacional de Gral. San Martín – Buenos Aires, Argentina
 Thesis: “Detection and study of DNA surface hybridization reactions by surface plasmon resonance techniques”.
 Directors: Prof. Dr. Wolfgang Knoll, Prof. Dr. Ana María Llois

02.1995 – 06.1997 Chemical Engineering
 Universidad Tecnológica Nacional- Buenos Aires, Argentina

02.1989 – 12.1994 Electromechanical technician
 Instituto Tecnológico Philips Argentina- Buenos Aires, Argentina

HONORS AND AWARDS

2024 Incorporation to the National Academy of Exact, Physical and Natural Sciences (Argentina)

2024 Frontiers of Science Award in Biophotonics, International Congress of Basic Science, China.
Team award to the authors of “Nanometer resolution imaging and tracking of fluorescent molecules with minimal photon fluxes” - Science 355 (2017) 606-612: Francisco Balzarotti, Yvan Eilers, Klaus C. Gwosch, Arvid H. Gynma, Volker Westphal, Fernando D. Stefani, Johan Elf, Stefan W. Hell

2024 Distinction for Academic Excellence, University of Buenos Aires, Argentina

2023 Konex Award 2012-2022 on Nanoscience and Analytical Chemistry, Konex Foundation

2018 Houssay Prize in Mathematics, Physics, Astronomy, and Computation
 Ministry of Science, Technology and Innovation, Argentina

2018 Distinction for Academic Excellence, University of Buenos Aires, Argentina

2017 Georg Foster Research Award, Alexander von Humboldt Foundation, Germany

2017 Innovar Award, Ministry of Science, Technology and Innovation, Argentina

2015 Distinction for Academic Excellence, University of Buenos Aires, Argentina

2015 Mercator Fellowship, Deutsche Forschungsgemeinschaft (DFG), Germany

2014 Innovar Award, Ministry of Science, Technology and Innovation, Argentina

2014 Young Investigator Award in Physics
 National Academy of Exact, Physical and Natural Sciences, Argentina

2005 Otto Hahn Medal, Max Planck Society, Germany

LANGUAGES

Spanish: native

English: reads, speaks, and writes

German: reads, speaks

TRAINING AND MENTORING

Current direction of PhD candidates	Florencia Choque (Physics) Gonzalo Escalante (Physics) Florencia Edorna (Physics) Florián Haberkorn Waigel (Physics)- codirected with Dr. Tomás Falzone Ana Wendel (Physics) - codirected with Prof. Dr. Rodrigo Palacios	
Current direction of postdocs	Dr. Nahuel Trakowski	
Current supervision of undergraduate students	Facundo Rouquaud (Physics) Lourdes Simó (Physics) Matías Laborero (Physics) Lautaro Mancini (Physics)	
Current direction of researchers	Dr. Alan Szalai Dr. Julián Gargiulo	codirected with Dr. Damián Refojo codirected with Prof. Dr. Galo Soler Illia
Finished Ph.D thesis	Dr. Jessica V. Pellegrotti Dr. Martín D. Bordenave Dr. Julián Gargiulo- Giambiagi Award of the Argentine Physics Association to the best doctoral thesis on experimental physics 2016-2017 Dr. Federico Barabas Dr. Rodrigo Ponzio - codirected with Prof. Dr. Rodrigo Palacios Dr. Luciano Masullo- Giambiagi Award of the Argentine Physics Association to the best doctoral thesis on experimental physics 2020-2021 Dr. Cecilia Zaza Dr. Santiago Sosa – codirected with Prof. Dr. Fernando Goldbaum Dr. Luciana Martínez – codirected with Prof. Dr. Ianina Violi	

ALUMNI

Next position

Dr. Luciana Martínez	Postdoc, University College London, UK
Dr. Santiago Sosa	University of buenos Aires, Argentina
Dr. Alan Szalai	Humboldt Fellowship - postdoc at Ludwig-Maximilians University, Munich
Fernando Caprile	Data Scientist at Danaide S.A, Buenos Aires, Argentina
Dr. Cecilia Zaza	Human Frontier Science Program Postdoctoral Fellow , University College London
Dr. Mariano Barella	Postdoc at University of Fribourg, Switzerland
Dr. Ianina Violi	Researcher at National University of San Martin, Buenos Aires, Argentina
Dr. Romina Landa	Software developer at Collective.ai, Buenos Aires, Argentina

Dr. Luciano Masullo	Marie Curie Fellowship - Postdoc at Max Planck for Biochemistry, Munich
Dr. Rodrigo Ponzio	Postdoc at National University of Río Cuarto, Córdoba, Argentina
Germán Chiarelli	Ph.D. candidate, University of Fribourg, Fribourg, Switzerland
Robin Puchert	Ph.D. candidate, University of Regensburg, Regensburg, Germany
Santiago Cerrotta	Ph.D. candidate, National Technological University, Campana, Buenos Aires
Bruno Scocozza	Ph.D. candidate, Max-Planck-Institute of Molecular Physiology, Dortmund
Dr. Martín Bordenave	Satellogic, Buenos Aires, Argentina-> Cruise, USA
Dr. Julián Gargiulo	Marie Curie Fellowship -postdoc at Imperial College London, UK
Dr. Federico Barabas	Insights Manager at Spotify, Stockholm, Sweden
Alfredo Sánchez	Postdoc at Institute of Photonic Sciences (ICFO), Barcelona, Spain
Dr. Jesica Pellegrotti	Assistant Professor, National University of Comahue, Neuquén, Argentina
Dr. Yanina Álvarez	Senior Research Officer, University of Queensland, Australia
Dr. Eduardo Perassi	Assistant Professor at National University of Córdoba, Córdoba, Argentina
Dr. Emiliano Cortés	Marie Curie Fellowship – Imperial College London, UK
Andrés Benassi	Geophysicist at Total, Houston, Texas, USA
Dr. Fernando Diaz	Optical Engineer at Baraja Pty Ltd., New South Wales, Australia

VISITING PROFESOR

03.2018, 05.2019, 09.2022	Ludwig-Maximilians-University Munich, Germany Host: Prof. Dr. Philip Tinnefeld
05.2019, 05.2022, 04.2023 03.2024, 03.2025	University of Fribourg, Switzerland Host: Prof. Dr. Guillermo P. Acuna
07.2017, 09.2015, 07.2012	Technical University of Braunschweig, Germany Host: Prof. Dr. Philip Tinnefeld
07.2013, 03.2012, 04.2021	MPI for Biophysical Chemistry, Göttingen, Germany Host: Prof. Dr. Stefan W. Hell
10.2014	University of California at Berkeley, USA Host: Prof. Dr. Carlos Bustamante

PUBLICATIONS

[Google scholar metrics](#) h-index: 44 Total citations > 8900
[Scopus Metrics](#) h-index: 38 Total citations > 6600

- 2025 Florencia Edorna, Florencia D. Choque, Giovanni Ferrari, Luciano A. Masullo, PiotrZdańkowski, Guillermo Acuna, Philip Tinnefeld, Alan M. Szalai, Lucía F. Lopez, AndrésZelcer and Fernando D. Stefani
 91 “Open-source Sub-Nanometer Stabilization System for Super-resolution Fluorescence Microscopy”
Light: Science & Applications accepted (2025)

- Morgane Loretan, Mariano Barella, Nathan Fuchs, Samet Kocabey, Karol Kořataj, Fernando D. Stefani & Guillermo P. Acuna
 90 "Direct single-molecule detection and super-resolution imaging with a low-cost portable smartphone-based microscope" **Nature Communications** 16 (2025) 8937
- Analia G. Novero, Arturo Matamoros-Volante, Lucila R. Gomez-Olivieri, Cintia Stival, Guillermina M. Luque, Alan M. Szalai, Andrea L. Ambrosio, Fernando D. Stefani, Mariano G. Buffone, Dario Krapf, Diego Krapf
 89 "Dynamic relocation of PKA regulatory subunits during sperm capacitation: Linking PKA to the CatSper signaling complex" **PNAS** 122 (2025) e2501741122
- Nahuel Tarkowski, Fernando D. Stefani
 88* "Guidelines for MINFLUX excitation pattern design"
ACS Photonics 12 (2025) 1707–1715
- Santiago Sosa, Alan M. Szalai, Lucía F. Lopez, Juan Manuel Prieto, Cecilia Zaza, Aleksandra K. Adamczyk, Hernan R. Bonomi, Marcelo Marti, Guillermo P. Acuna, Fernando A. Goldbaum, Fernando D. Stefani
 87* "Monitoring dynamic conformations of a single fluorescent molecule inside a protein cavity"
Small Methods (2025) 2402114
- Aleksandra K. Adamczyk, Fangjia Zhu, Daniel Schäfer, Yuya Kanehira, Sergio Kogikoski, Jr., Ilko Bald, Sebastian Schlücker, Karol Kořataj, Fernando D. Stefani, and Guillermo P. Acuna
 2024
 86* "Coupling Single Molecules to DNA-Based Optical Antennas with Position and Orientation Control"
ACS Photonics 11 (2024) 5267–5272
- José Wojnacki, Gonzalo Quassollo, Martín D. Bordenave, Nicolás Unsain, Gaby F. Martínez, Alan M. Szalai, Olivier Pertz, Gregg . Gundersen, Francesca Bartolini, Fernando D. Stefani, Alfredo Cáceres, Mariano Bisbal
 85 "Dual spatio-temporal regulation of axon growth and microtubule dynamics by RhoA signaling pathways"
Journal of Cell Science 137 (2024) jcs261970
- Piotr Zdańkowski, Lucía F Lopez, Florencia Edorna, Guillermo P Acuna, Fernando D Stefani
 84* "Single Molecule Localization and Nanoscopy Through Sequential Structured Illumination"
 Book chapter in **Super-Resolution Microscopy for Material Science**, CRC Press, p. 133-155
- Luciana P. Martinez, María Cristina Mina Villarreal, Cecilia Zaza, Mariano Barella, Guillermo Acuna, Fernando D. Stefani, Ianina L. Violi, Julian Gargiulo.
 83 "Thermometries for Single Nanoparticles Heated with Light"
ACS Sensors 9 (2024) 1049-1064
- Fiona Cole, Jonas Zähringer, Johann Bohlen, Tim Schröder, Florian Steiner, Fernando D. Stefani, Philip Tinnefeld
 82 "Super-Resolved FRET and Co-Tracking in pMINFLUX" **Nature Photonics** 18 (2024) 478-484
- Julian Gargiulo, Matias Herran, Ianina L. Violi, Ana Sousa-Castillo, Luciana P. Martinez, Simone Ezendam, Mariano Barella, Helene Giesler, Roland Grzeschik, Sebastian Schlücker, Stefan A. Maier, Fernando D. Stefani, Emiliano Cortes
 2023
 81 "Impact of bimetallic interface design on heat generation in plasmonic Au/Pd nanostructures studied by single-particle thermometry" **Nature Communications** 14 (2023) 3813
- Fernando D. Stefani
 80* "Tracking nanoscopic motion with minima of light"
Nature Photonics 17 (2023) 552–553
- Cecilia Zaza, Germán Chiarelli, Ludovit P. Zweifel, Mauricio Pilo-Pais, Evangelos Sisamakakis, Fernando D. Stefani, Guillermo P. Acuna
 79* "Super-resolved FRET imaging by confocal fluorescence-lifetime single-molecule localization microscopy"
Small Methods (2023) 2201565

- 78 Luciana P. Martinez, Santiago Poklepovich-Caride, Julian Gargiulo, Eduardo D. Martínez, Fernando D. Stefani, Paula C. Angelomé, Ianina L. Violi
 “Optical Printing of Single Au Nanostars”
Nano Letters 23 (2023) 2703-2709
- 77* Lucía F. Lopez, Luciano A. Masullo, Alan M. Szalai, Florencia Edorna, Florencia D. Choque, Fernando Caprile, Fernando D. Stefani
 “Optimization and characterization of toroidal foci for super-resolution fluorescence microscopy: a tutorial” *Journal of the Optical Society of America B* 40 (2023) C103-C110
- 2022 Piotr Zdańkowski, Lucía F. Lopez, Guillermo P. Acuna, Fernando D. Stefani
 76* “Nanometer resolution imaging and tracking of single fluorophores by sequential structured illumination”
ACS Photonics 9 (2022) 3777–3785
- 75* Aleksandra K. Adamczyk, Teun A.P.M. Huijben, Miguel Sison, Andrea di Luca, Germán Chiarelli, Stefano Vanni, Sophie Brasselet, Kim I. Mortensen, Fernando D. Stefani, Mauricio Pilo-Pais, and Guillermo P. Acuna
 “DNA self-assembly of single molecules with deterministic position and orientation”
ACS Nano 16 (2022) 16924–16931
- 74* Fangjia Zhu, María Sanz-Paz, Antonio I. Fernández-Domínguez, Xiaolu Zhuo, Luis M. Liz-Marzán, Fernando D. Stefani, Mauricio Pilo-Pais, and Guillermo P. Acuna
 “DNA-Templated Ultracompact Optical Antennas for Unidirectional Single-Molecule Emission”
Nano Letters 20 (2022) 6402–6408
- 73* Luciano A. Masullo, Alan M. Szalai, Lucía F. Lopez, Mauricio Pilo-Pais, Guillermo P. Acuna, and Fernando D. Stefani
 “An alternative to MINIFLUX that enables nanometre resolution in a confocal microscope”
Light: Science & Applications 11 (2022) 199
- 72* Luciana P. Martinez, Julian Gargiulo, Mariano Barella, Ianina L. Violi, Fernando D. Stefani
 “Fine tuning the optical properties of single Au nanoparticles by plasmon-driven growth in closed-loop control” *Advanced Optical Materials* 10 (2022) 2102724
- 71* Luciano A. Masullo & Fernando D. Stefani
 “Multiphoton single-molecule localization by sequential excitation with light minima”
Light: Science & Applications 11 (2022) 70
- 70* Fernando Caprile, Luciano A. Masullo, Fernando D. Stefani
 “PyFocus – a Python package for vectorial calculations of focused optical fields under realistic conditions. Application to toroidal foci.” *Computer Physics Communications* 275 (2022) 108315
- 69* Ianina L. Violi, Luciana P. Martinez, Mariano Barella, Cecilia Zaza, Lukáš Chvátal, Pavel Zemánek, Marina V. Gutiérrez, María Y. Paredes, Alberto F. Scarpettini, Jorge Olmos-Trigo, Valeria R. Pais, Iván Díaz Nóbrega, Emiliano Cortes, Juan José Sáenz, Andrea V. Bragas, Julian Gargiulo, Fernando D. Stefani
 “Challenges on Optical Printing of Colloidal Nanoparticles”
Journal of Chemical Physics 156 (2022) 034201
- 68* Luciano A. Masullo, Lucía F. Lopez, Fernando D. Stefani
 “A common framework for single-molecule localization using sequential structured illumination”
Biophysical Reports 2 (2022) 100036
- 67* Luciano A. Masullo, Alan M. Szalai, Lucía F. Lopez, Fernando D. Stefani
 “Fluorescence nanoscopy at the sub-10 nm scale”
Biophysical Reviews 13 (2022) 1101-1112

- 2021
66* Alan M. Szalai, Cecilia Zaza, Fernando D. Stefani
"Super-resolution FRET measurements"
Nanoscale 13 (2021) 18421 - 18433
- Rodrigo A. Ponzio, Ramiro M. Spada, Ana B. Wendel, M. Virginia Forcone, Fernando D. Stefani, Carlos A. Chesta, Rodrigo E. Palacios
- 65 "Exciton diffusion, antenna effect and quenching defects in superficially dye doped conjugated polymer nanoparticles" **Journal of Physical Chemistry C** 125 (2021) 23299–23312
- Kristina Hübner, Himanshu Joshi, Aleksei Aksimentiev, Fernando D. Stefani, Philip Tinnefeld, and Guillermo P. Acuna
- 64* "Determining the In-Plane Orientation and Binding Mode of Single Fluorescent Dyes in DNA Origami Structures" **ACS Nano** 15 (2021) 5109–5117
- Alan M. Szalai, Bruno Siarry, Jerónimo Lukin, Sebastián Giusti, Nicolás Unsain, Alfredo Cáceres, Florian Steiner, Philip Tinnefeld, Damián Refojo, Thomas M. Jovin, Fernando D. Stefani
- 63* "Super-resolution Imaging of Energy Transfer by Intensity-Based STED-FRET"
Nano Letters 21 (2021) 2296–2303
- Alan Szalai, Bruno Siarry, Jerónimo Lukin, David J. Williamson, Nicolás Unsain, Alfredo Cáceres, Mauricio Pilo-Pais, Guillermo Acuna, Damián Refojo, Dylan M. Owen, Sabrina Simoncelli, Fernando D. Stefani
- 62* "Three-dimensional total-internal reflection fluorescence nanoscopy with nanometric axial resolution by photometric localization of single molecules" **Nature Communications** 12 (2021) 517
- Luciano A. Masullo, Florian Steiner, Jonas Zähringer, Lucía F. Lopez, Johann Bohlen, Lars Richter, Fiona Cole, Philip Tinnefeld, Fernando D. Stefani
- 61* "Pulsed Interleaved MINFLUX"
Nano Letters 21 (2021) 840-846
- 2020
60* Mariano Barella, Ianina L. Violi, Julian Gargiulo, Luciana P. Martinez, Florian Goschin, Victoria Guglielmotti, Diego Pallarola, Sebastian Schlücker, Mauricio Pilo-Pais, Guillermo P. Acuna, Stefan A. Maier, Emiliano Cortes, Fernando D. Stefani
"In Situ Photothermal Response of Single Gold Nanoparticles Through Hyperspectral Imaging Anti-Stokes Thermometry" **ACS Nano** 15 (2020) 2458-2467
- Alan M Szalai, Lucía F López, Miguel Ángel Morales-Vásquez, Fernando D Stefani, Pedro F Aramendia
- 59* "Analysis of sparse molecular distributions in fibrous arrangements based on the distance to the first neighbor in single molecule localization microscopy" **Nanoscale** 12 (2020) 9495–9506
- Gaby F. Martínez, Nahir G. Gazal, Gonzalo Quassollo, Alan M. Szalai, Esther Del Cid-Pellitero, Thomas M. Durcan, Edward A. Fon, Mariano Bisbal, Fernando D. Stefani, Nicolas Unsain
- 58 "Quantitative expansion microscopy for the characterization of the spectrin periodic skeleton of axons using fluorescence microscopy" **Scientific Reports** 10 (2020) 2917
- Annette M. Vogl, Lilian Phu, Raquel Becerra, Sebastian A. Giusti, Erik Verschueren, Trent B. Hinkle, Martín D. Bordenave, Max Adrian, Amy Heidersbach, Patricio Yankilevich, Fernando D. Stefani, Wolfgang Wurst, Casper C. Hoogenraad, Donald S. Kirkpatrick, Damian Refojo, Morgan Sheng
- 57 "Global site-specific neddylation profiling reveals that NEDDylated cofilin regulates actin dynamics"
Nature Structural & Molecular Biology 27 (2020) 210–220
- 2019
56* Kristina Hübner, Mauricio Pilo-Pais, Florian Selbach, Tim Liedl, Philip Tinnefeld, Fernando D. Stefani, Guillermo P. Acuna
"Directing Single-Molecule Emission with DNA Origami-Assembled Optical Antennas"
Nano Letters 19 (2019) 6629-6634

- Cecilia Zaza, Ianina L. Violi, Julián Gargiulo, Germán Chiarelli, Ludmilla Schumacher, Jurij Jakobi, Jorge Olmos, Emiliano Cortes, Matthias König, Stephan Barcikowski, Sebastian Schlücker, Juan José Saenz, Stefan A Maier, Fernando D. Stefani
- 55* *Size-selective optical printing of silicon nanoparticles through their dipolar magnetic resonance*
ACS Photonics 6 (2019) 815-822
- Santiago Sosa, Andrés Rossi, Alan Szalai, Sebastián Klinke, Jimena Rinaldi, Ana Farias, Paula Berguer, Alejandro D. Nadra, Fernando D. Stefani, Fernando A. Goldbaum, Hernan Bonomi
- 54 *“Asymmetric bifunctional protein nanoparticles through redesign of self-assembly”*
Nanoscale Advances 1 (2019) 1833-1846
- 2018 Alan Szalai, Natalia G. Armando, Federico M. Barabas, Fernando D. Stefani, Luciana Giordano, Sara Bari, Claudio N. Cavasotto, Susana Silberstein, Pedro F. Aramendía
- 53 *“A fluorescence nanoscopy marker for corticotropin-releasing hormone type 1 receptor: computer design, synthesis, signaling effects, super-resolved fluorescence imaging, and in situ affinity constant in cells”*
Phys.Chem.Chem.Phys. 20 (2018) 29212-29920
- Rocío G. Sampayo, Andrés M. Toscani, Matthew G. Rubashkin, Kate Thi, Luciano A. Masullo, Ianina L. Violi, Jonathon N. Latkins, Alfredo Cáceres, William C. Hines, Federico Coluccio Leskow, Fernando D. Stefani, Dante R. Chialvo, Mina J. Bissell, Valerie M. Weaver, Marina Simian
- 52 *“Fibronectin rescues estrogen receptor alpha from lysosomal 1 degradation in breast cancer cells”*
Journal of Cell Biology 217 (2018) 2777-2798
- Nicolas Unsain, Fernando D. Stefani, Alfredo Cáceres
- 51 *“The Actin/Spectrin Membrane-Associated Periodic Skeleton in Neurons”*
Frontiers in Synaptic Neuroscience 10 (2018) 10
- Nicolás Unsain, Martin D. Bordenave, Gaby F. Martinez, Sami Jalil, Catalina von Bilderling, Federico Barabas, Luciano A. Masullo, Aaron D. Johnstone, Phil A. Barker, Mariano Bisbal, Fernando D. Stefani, Alfredo Cáceres.
- 50 *“Remodeling of the Actin/Spectrin Membrane-associated Periodic Skeleton, Growth Cone Collapse and F-Actin Decrease during Axonal Degeneration”* **Scientific Reports** 8 (2018) 3007
- Yanina D. Álvarez, Jesica V. Pellegrotti, Fernando D. Stefani.
- 49* Book chapter: *“Gold Nanoparticles as Nucleation Centers for Amyloid Fibrillation”*
In: F. Santamaria, X. Peralta (eds) *“Use of Nanoparticles in Neuroscience”*.
Neuromethods 135 (2018) 269-291. Humana Press, New York.
- 2017 Federico M. Barabas, Luciano A. Masullo, Martín D. Bordenave, Sebastián Giusti, Nicolás Unsain, Damián Refojo, Alfredo Cáceres, Fernando D. Stefani
- 48* *“Automated quantification of protein periodic nanostructures in fluorescence nanoscopy images: abundance and regularity of neuronal spectrin membrane-associated skeleton”*
Scientific Reports 7 (2017) 16029
- Julián Gargiulo, Ianina L. Violi, Santiago Cerrota, LukášChvátal, Emiliano Cortés, Eduardo M. Perassi, Fernando Diaz, Pavel Zemánek, Fernando D. Stefani
- 47* *“Accuracy and Mechanistic Details of Optical Printing of Single Au and Ag Nanoparticles”*
ACS Nano 11 (2017) 9678–9688
- Julian Gargiulo, Thomas Brick, Ianina L. Violi, Facundo C. Herrera, Toshihiko Shibamura, Pablo Albella, Felix G. Requejo, Emiliano Cortés, Stefan A. Maier, Fernando D. Stefani
- 46* *“Understanding and Reducing Photothermal Forces for the Fabrication of Au Nanoparticle Dimers by Optical Printing”* **Nano Letters** 17 (2017) 5747–5755

- 45* Mario Raab, Carolin Vietz, Fernando D. Stefani, Guillermo P. Acuna and Philip Tinnefeld
 “Shifting molecular localization by plasmonic coupling in a single-molecule mirage”
Nature Communications 8 (2017) 13966
- 44 Francisco Balzarotti, Yvan Eilers, Klaus C. Gwosch, Arvid H. Gynma, Volker Westphal, Fernando D. Stefani, Johan Elf, Stefan W. Hell
 “Nanometer resolution imaging and tracking of fluorescent molecules with minimal photon fluxes”
Science 355 (2017) 606-612
- 2016 Federico Barabas, Luciano Masullo, Fernando D. Stefani
 43 “Tormenta: an open source Python-powered control software for camera based optical microscopy”
Review of Scientific Instruments 87 (2016) 126103
- 42* Jesica V. Pellegrotti, Emiliano Cortés, Martin D. Bordenave, Martin Caldarola, Mark P. Kreuzer, Alfredo D. Sanchez, Ignacio Ojea, Andrea V. Bragas, Fernando D. Stefani
 “Plasmonic photothermal fluorescence modulation for homogenous biosensing”
ACS Sensors 1 (2016) 1351-1357
- 41* Ianina L. Violi, Julián Gargiulo, Catalina von Bilderling, Emiliano Cortés, and Fernando D. Stefani
 “Light-Induced Polarization-Directed Growth of Optically Printed Gold Nanoparticles”
Nano Letters 16 (2016) 6529–6533
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OPEN PUBLICATIONS AND SOFTWARE

In Spanish: Política científico-tecnológica y monitoreo de la evolución de la inversión pública en I+D en
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Software for simulations, data analysis and instrument control <https://github.com/Stefani-Lab>

PRESENTATIONS AT INTERNATIONAL CONFERENCES

Total: >200 Charlas invitadas en congresos internacionales: >40

Some relevant invited talks of the last years:

- 17.10.2025 Light in South America – Rio de Janeiro, Brazil, Italy
“Fluorescence Nanoscopy and Single Molecule Tracking with True Nanometric Resolution: STED-FRET, MINFLUX and Other Ways”
- 17.06.2025 12th International Weber Symposium on Innovative Fluorescence Methodologies in Biochemistry and Medicine – Genoa, Italy
“Ultraprecise single-molecule localization and tracking with pulsed-interleaved MINFLUX”
- 10.02.2024 Annual Meeting of the Biophysical Society BPS 2024 – Philadelphia, USA
“Fluorescence nanoscopy with sub-10 nm resolution”
- 11.01.2023 11th International Weber Symposium on Innovative Fluorescence Methodologies in Biochemistry and Medicine – Punta del Este, Uruguay
“RASTMIN: an alternative to MINFLUX that enables nanometre resolution in a confocal microscope”
- 18.11.2022 Sociedad Argentina de Biofísica – Rosario, Argentina
“RASTMIN: an alternative to MINFLUX that enables nanometre resolution in a confocal microscope”
- 13.09.2022 Latin America Bioimaging, Chan Zuckerberg Initiative – Montevideo, Uruguay
“Surpassing the sub-10 resolution limit in fluorescence nanoscopy” - plenary talk
- 29.08.2022 OPTICA Webinar, Optical Society of America, USA
Microscopy and Optical Tomography Section
“Localization of Fluorophores”
- 08.03.2022 Nanolight 2022 - Centro de Ciencias Pedro Pascual – Benasque, Spain
“Single molecule localization through sequential structured illumination”