PROF. DR. FERNANDO D. STEFANI

Born in Buenos Aires, November 19th, 1975.
Married, 4 sons
fernando.stefani@df.uba.ar
www.stefani-lab.ar

Fernando Stefani was born and raised in Buenos Aires, Argentina. He graduated with honors in Materials Engineering from the National University of San Martin (Buenos Aires) in 2001 and went on to earn his Ph.D. in Chemistry with summa cum laude distinction from the Max-Planck Institute for Polymer Research in Mainz, Germany (2004). For his doctoral research, he was awarded the prestigious Otto Hahn Medal by the Max-Planck Society. Following his Ph.D., he completed a postdoctoral fellowship at the Institute of Photonic Sciences in Barcelona, Spain, and later served as an Assistant Professor in the Faculty of Physics at the Ludwig-Maximilians University of Munich, Germany.

In 2009, Prof. 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). Throughout his career, he has been mentored by and collaborated with renowned scientists, including Wolfgang Knoll, Niek van Hulst, Jochen Feldmann, Pedro Aramendía, Theo Lasser, Thomas Jovin, and Stefan W. Hell, among others.

Since his return to Argentina, Prof. Stefani has established a leading research laboratory in nanophotonics and super-resolution microscopy, which has gained international recognition and serves as a regional hub for cutting-edge research. Under his guidance, more than 20 young researchers have launched successful careers in academia and high-tech industries.

In addition to his research contributions, Prof. Stefani is a member of the Advisory Board of the National Association for the Advancement of Science (Argentina) and the National Academy of Exact, Physical, and Natural Sciences of Argentina. He has also served as a scientific advisor to the National Congress, providing expertise to both the Chamber of Senators and the Chamber of Deputies.

Buenos Aires, February 28th, 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

Areas of interest & Methods

Bioimaging & biosensing	Super-resolution fluorescence microscopy
Biological supramolecular structures	Single-molecule detection and spectroscopy
Photophysics	Optical and photothermal manipulation
Single molecules and nanoparticles	Single-molecule (particle) tracking
Nanophotonics and plasmonics	Molecular self-assembly
Hybrid nano-bio-systems	Computer simulations

University teaching & research

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

06.2022 – present	Member of the Executive Board *Fundación Argentina de Nanotecnología*
03.2022 – present	Director Center for Bionanoscience Research (CIBION- CONICET), Buenos Aires, Argentina
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

Ph. D. (Chemistry)

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
summa cum laude

Education

07.1997 – 06.2001 Materials Engineering- 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 & 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 for Innovation at Universities
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 for Applied Research Ministry of Science, Technology and Innovation, Argentina
2014	Young Investigator Award in Physics National Academy of Exact, Physical and Natural Sciences, Argentina
2012, 2010 y 2009	Publication Award Center For Nanoscience (CeNS), Munich, Germany
2005	Otto Hahn Medal Max Planck Society, Germany

Languages

Spanish: native | English: reads, speaks, and writes | German: reads, speaks

Training and mentoring young researchers

Current direction of PhD candidates: Florencia Choque (Physics), Gonzalo Escalante (Physics), Florencia Edorna (Physics)

Assistant researchers:
Dr. Alan Szalai
Dr. Ianina Violi (co-directed with Prof. Dr. Galo Soler Illia)
Dr. Julián Gargiulo (co-directed with Prof. Dr. Galo Soler Illia)

Alumni

Dr. Luciana Martínez	Postdoc, University College London, UK
Dr. Santiago Sosa	University of buenos Aires, Argentina
Dr. Alan Szalai	Postdoc at Ludwig-Maximilians University, Munich, Germany
Fernando Caprile	Data Scientist at Danaide S.A, Buenos Aires, Argentina
Dr. Cecilia Zaza	Postdoc, University College London, UK
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	Postdoc at Max Planck for Biochemistry, Munich, Germany Giambiagi Award of the Argentine Physics Association to the best doctoral thesis on experimental physics 2020-2021.
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, Argentina
Bruno Scocozza	Ph.D. candidate, Max-Planck-Institute of Molecular Physiology, Dortmund, Germany
Dr. Martín Bordenave	Satellogic, Buenos Aires, Argentina-> Cruise, USA
Dr. Julián Gargiulo	Researcher at National University of San Martin, Buenos Aires, Argentina Giambiagi Award of the Argentine Physics Association to the best doctoral thesis on experimental Physics 2016-2017.

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	Professor (W2), Nano Institute, Ludwig-Maximilians-University Munich, Germany
Andrés Benassi	Geophysicist at Total, Houston, Texas, USA
Dr. Fernando Diaz	Optical Engineer at Baraja Pty Ltd., New South Wales, Australia

Visiting Professor

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

stefani-lab.ar/publications/

88 peer-reviewed publications in international journals

Google scholar metrics	h-index: 42	Total citations > 8200
Scopus Metrics	h-index: 36	Total citations > 6100

2025
88* Nahuel Tarkowski, Fernando D. Stefani
"Guidelines for MINFLUX excitation pattern design"
ACS Photonics - accepted

87* 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
"Monitoring dynamic conformations of a single fluorescent molecule inside a protein cavity"
Small Methods (2025) 2402114

2024
86* Aleksandra K. Adamczyk, Fangjia Zhu, Daniel Schäfer, Yuya Kanehira, Sergio Kogikoski, Jr., Ilko Bald, Sebastian Schlücker, Karol Kołątaj, Fernando D. Stefani, and Guillermo P. Acuna
"Coupling Single Molecules to DNA-Based Optical Antennas with Position and Orientation Control"
ACS Photonics 11 (2024) 5267–5272

85 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
"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

2023 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
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 Sisamakis, Fernando D. Stefani, Guillermo P. Acuna
79* "Super-resolved FRET imaging by confocal fluorescence-lifetime single-molecule localization microscopy"
Small Methods (2023) 2201565

Luciana P. Martinez, Santiago Poklepovich-Caride, Julian Gargiulo, Eduardo D. Martínez, Fernando D. Stefani, Paula C. Angelomé, Ianina L. Violi
78 "Optical Printing of Single Au Nanostars"
Nano Letters *23 (2023) 2703-2709*

Lucía F. Lopez, Luciano A. Masullo, Alan M. Szalai, Florencia Edorna, Florencia D. Choque, Fernando Caprile, Fernando D. Stefani
77* "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

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
75* "DNA self-assembly of single molecules with deterministic position and orientation"
ACS Nano 16 (2022) 16924–16931

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
74* "DNA-Templated Ultracompact Optical Antennas for Unidirectional Single-Molecule Emission"
Nano Letters 20 (2022) 6402–6408

Luciano A. Masullo, Alan M. Szalai, Lucía F. Lopez, Mauricio Pilo-Pais, Guillermo P. Acuna, and Fernando D. Stefani
73* "An alternative to MINFLUX that enables nanometre resolution in a confocal microscope"
Light: Science & Applications 11 (2022) 199

Luciana P. Martinez, Julian Gargiulo, Mariano Barella, Ianina L. Violi, Fernando D. Stefani
72* "Fine tuning the optical properties of single Au nanoparticles by plasmon-driven growth in closed-loop control"
Advanced Optical Materials 10 (2022) 2102724

Luciano A. Masullo & Fernando D. Stefani
71* "Multiphoton single-molecule localization by sequential excitation with light minima"
Light: Science & Applications 11 (2022) 70

Fernando Caprile, Luciano A. Masullo, Fernando D. Stefani
70* "PyFocus – a Python package for vectorial calculations of focused optical fields under realistic conditions. Application to toroidal foci."
Computer Physics Communications 275 (2022) 108315

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 Nóblega, Emiliano Cortes, Juan José Sáenz, Andrea V. Bragas, Julian Gargiulo, Fernando D. Stefani
69* "Challenges on Optical Printing of Colloidal Nanoparticles"
Journal of Chemical Physics 156 (2022) 034201

Luciano A. Masullo, Lucía F. Lopez, Fernando D. Stefani
68* "A common framework for single-molecule localization using sequential structured illumination"
Biophysical Reports 2 (2022) 100036

Luciano A. Masullo, Alan M. Szalai, Lucía F. Lopez, Fernando D. Stefani
67* "Fluorescence nanoscopy at the sub-10 nm scale"
Biophysical Reviews 13 (2022) 1101-1112

2021 Alan M. Szalai, Cecilia Zaza, Fernando D. Stefani
66* "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 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
60* "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 Kristina Hübner, Mauricio Pilo-Pais, Florian Selbach, Tim Liedl, Philip Tinnefeld, Fernando D. Stefani, Guillermo P. Acuna
56* "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 Shibanuma, 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

Mario Raab, Carolin Vietz, Fernando D. Stefani, Guillermo P. Acuna and Philip Tinnefeld
45* "Shifting molecular localization by plasmonic coupling in a single-molecule mirage"
Nature Communications 8 (2017) 13966

Francisco Balzarotti, Yvan Eilers, Klaus C. Gwosch, Arvid H. Gynma, Volker Westphal, Fernando D. Stefani, Johan Elf, Stefan W. Hell
44 "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

Jesica V. Pellegrotti, Emiliano Cortés, Martin D. Bordenave, Martin Caldarola, Mark P. Kreuzer, Alfredo D. Sanchez, Ignacio Ojea, Andrea V. Bragas, Fernando D. Stefani
42* "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

Martin D. Bordenave, Francisco Balzarotti, Fernando D. Stefani, Stefan W. Hell
40* "STED nanoscopy with wavelengths at the emission maximum"
Journal of Physics D: Applied Physics 49 (2016) 365102

Julian Gargiulo, Santiago Cerrotta, Emiliano Cortés, Ianina L. Violi, Fernando D. Stefani
39* "Connecting metallic nanoparticles by optical printing"
Nano Letters 16 (2016) 1224–1229

2015 Thorben Cordes, William Moerner, Michel Orrit, Sergey Sekatskii, Sanli Faez, Paola Borri, Himangshu Prabal Goswami, Alex Clark, Patrick El-Khoury, Sandra Mayr, Jacek Mika, Guowei Lyu, Daniel Cross, Francisco Balzarotti, Wolfgang Langbein, Vahid Sandoghdar, Jens Michaelis, Arindam Chowdhury, Alfred J Meixner, Niek van Hulst, Brahim Lounis, Fernando Stefani, Frank Cichos, Maxime Dahan, Lukas Novotny, Mark Leake
38 "Plasmonics, Tracking and Manipulating, and Living Cells: general discussion"
Faraday discussions 184 (2015) 451 - 473

2014 J. V. Pellegrotti, Martin Caldarola, Mark P. Kreuzer, Emiliano Cortés, Martin D. Bordenave, Alfredo D. Sanchez, Ignacio Ojea, Andrea V. Bragas, Fernando D. Stefani
37* "Biosensado basado en modulación de fluorescencia por calentamiento plasmónico de nanovarillas de oro"
Anales de la Academia Nacional de Ciencias Exactas, Físicas y Naturales 66 (2014) 82-94

J. V. Pellegrotti, G. P. Acuna, A. Puchkova, P. Holzmeister, A. Gietl, B. Lalkens, F. D. Stefani, P. Tinnefeld
36* "Controlled reduction of photobleaching in DNA origami - gold nanoparticle hybrids"
Nano Letters 14 (2014) 2831–2836

D. Brinks, R. Hildner, E. M. H. P. van Dijk, F. D. Stefani, J. B. Nieder, J. Hernand, N. F. van Hulst
35 "Ultrafast dynamics of single molecules"
Chemical Society Reviews 43 (2014) 2476-2491

2013 Y. D. Alvarez, J. A. Fauerbach, J. V. Pellegrotti, T. M. Jovin, E. A. Jares-Erijman, F. D. Stefani
34* "Influence of gold nanoparticles on the kinetics of α-synuclein aggregation"
Nano Letters 13 (2013) 6156-6163

2012 F. Balzarotti, F. D. Stefani
33* "Plasmonics Meets Far-Field Optical Nanoscopy"
ACS Nano 6 (2012) 4580–4584

G. P. Acuna, M. Bucher, I. H. Stein, Ch. Steinhauer, A. Kuzyk, P. Holzmeister, R. Schreiber, A. Moroz, F. D. Stefani, T. Liedl, F. C. Simmel, P. Tinnefeld
32 "Distance Dependence of Single-Fluorophore Quenching by Gold Nanoparticles Studied on DNA Origami"
ACS Nano 6 (2012) 3189–3195

S. R. Kirchner, A. Ohlinger, T. Pfeiffer, A. S. Urban, F. D. Stefani, A. Deak, A. A. Lutich, J. Feldmann
31 "Membrane composition of jetted lipid vesicles: a Raman spectroscopy study"
Journal of Biophotonics 5 (2012) 40–46

2011 D. Brinks, R. Hildner, F. D. Stefani, N. F. van Hulst
30 "Beating spatio-temporal coupling: implications for pulse shaping and coherent control experiments"
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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 base a datos abiertos https://stefani-lab.ar/politica-cientifica/

Software for simulations, data analysis and instrument control https://github.com/Stefani-Lab

Presentations at international conferences

Total: >200 Charlas invitadas en congresos internacionales: >30

Some relevant invited talks of the last years:

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”

05.10.2021 20th IUPAB Congress – San Pablo, Brazil
“Fluorescence Nanoscopy with sub-10 nm resolution … approaching molecular resolution”