

Leila Rocío Prélát

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Personal Details

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- **Nationality** Argentinian
- **Birth Date** March 28th 1996
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Education

- 2014-2021** **Master in Physics**, University of Buenos Aires (UBA), GPA – 9/10, Title's name is *Licenciatura*, it is equivalent to a Master. Courses with final exam: 24/27, courses with practical works approved: 27/27, Master thesis in preparation. Title expected for August 2021.
- 2009-2013** **High School**, *Colegio Nacional de Buenos Aires*

Academic Experience

- 2021-** **Teacher assistant**, Physics Department, FCEyN, UBA,
Laboratory 2: Experiences related to mechanical and electromagnetic waves, 10hr/week
- 2020-2021** **Master Thesis**, "Study of optics amplification and SPASER action in cylindrical graphene structures", Director: Prof. Ricardo A. Depine, Ph. D., Co-Director: Prof. Mauro Cuevas, Ph. D., *Applied Electromagnetism Group*, Physics Department, FCEN, UBA and IFIBA
- 2019** **Short Theoretical Research Internship**, "Study of waveguides in active cylindrical and coaxial plasmonic devices", Advisor: Prof. Ricardo Depine
- 2018** **Experimental Research Internship**, "Construction and Characterization of a tunable ECDL Laser and DAVS spectroscopy", Director: Prof. Christian Schmiegelow - LIAF (Laboratory of Ions and Cold Atoms), Physics Department, FCEN, UBA - In team with Facundo Rost and in collaboration with Fernando Del Rio

Publications

- 2021** **L. R. Prélát, M. Cuevas, N. Pasarelli, R. Bustos Marún and R. A. Depine**, "Spaser and Optical Amplification Conditions in Graphene-Coated Active Wires" under Rereview in JOSA B, original manuscript in <https://arxiv.org/abs/2103.06401>
- 2020** **L. R. Prélát, M. Cuevas, N. Pasarelli, R. Bustos Marún and R. A. Depine**, "Theoretical Study of a Cylindrical Graphene-based Localized Surface Plasmon Spaser" at FiO+LS (Optical Society's (OSA) Annual Meeting and Laser Science) <https://www.frontiersinoptics.com/home/eposters/poster/?id=3470828>

Presentations at conferences

- 2021** **Short Talk**, XX Meeting of Nanostructured Materials and Surfaces, Nano 2020/21, INTEMA, CONICET-UNMdP, Mar del Plata, Argentina
- "Tunable invisibility mediated by optical amplification in graphene-coated active wires", L. R. Prélát, M. Cuevas and R. A. Depine

- 2020** **Short Talk and Poster Presentation**, FiO+LS (Optical Society's (OSA) Annual Meeting and Laser Science), Washington DC, USA,
"Theoretical Study of a Cylindrical Graphene-based Localized Surface Plasmon Spaser", L. R. Pr  lat, M. Cuevas, N. Pasarelli, R. Bustos Mar  n and R. A. Depine
- 2020** **Short Talk**, 105th Meeting of the Argentinian Physics Association (AFA), Photonics and Optics Division, Buenos Aires, Argentina
"Surface localized plasmons in a graphene-coated cylinder", L. R. Pr  lat, M. Cuevas, N. Pasarelli, R. Bustos Mar  n and R. A. Depine
- 2018** **Poster Presentation**, 103th Meeting of the Argentinian Physics Association (AFA), Photonics and Optics Division, Buenos Aires, Argentina
"Frequency stabilization of a Laser", L. R. Pr  lat, F. Rost and F. Del Rio

Elective 1-semester courses

- 2019** **Statistical Methods in Experimental Physics**, Professor: Ricardo Pieg  a, UBA, Final Exam: 9/10
- 2019** **Laboratory of Electronics**, Professor: Miguel Larotonda, UBA, Final Exam: 10/10
- 2020** **Non Linear Dynamics**, Professor: Gabriel Mindlin, UBA, Final Exam: 10/10

Assistance to conferences and Courses

- 2021** **XX Meeting NANO 2020/21**, *Nanostructured surfaces and materials*, INTEMA, CONICET-UNMdP, Mar del Plata, Argentina, May 11-14
- 2020** **Optical Society's Annual Meeting and Laser Science (FiO+LS)**, Washington DC, USA, September 14-17
- 2020** **105th Meeting of the Argentinian Physics Association (AFA), Photonics and Optics Division**, Buenos Aires, Argentina, September 16-30
- 2018** **103th Meeting of the Argentinian Physics Association (AFA), Photonics and Optics Division**, Buenos Aires, Argentina, September 17-19
- 2018** **IX Meeting of Optics and Photonics Students (EEOF)**, *Introduction to the use of new technologies in experimental optics and photonics*, San Mart  n, Buenos Aires, Argentina, May 21-22
- 2018** **Laser Physics: Foundations and Applications**, SINALA-CONICET course, Villa Giardino, C  rdoba, Argentina, April 3-6, Grade: 10/10

Popular Science Activities

- 2018 and 2019** **Exhibitor**, Exhibitor at Physics Week for High School students organized by the UBA Physics Department
- 2012** **Exhibitor**, Exhibitor at Museums Week organized by the government of the City of Buenos Aires

Scholarship and distinctions

- 2021** PLANCKS 2021 Global Grant
- 2018** Scholarship awarded by SINALA-CONICET to attend the course *Laser Physics: Foundations and Applications* in Villa Giardino, C  rdoba, Argentina

Other skills

- Windows (Excel, Word, Power Point, etc), Linux
- Programming in Python, R and Matlab/Octave
- Github, git
- Latex, Vim
- Inkscape

Languages

Spanish Native

English Advanced

E-mail address for a potential reference

MSc thesis director rdep@df.uba.ar Prof. Ricardo Depine, Ph.D.

MSc thesis co-director cuevas@df.uba.ar Prof. Mauro Cuevas, Ph.D.

Professor grinblat@df.uba.ar Prof. Gustavo Grinblat, Ph.D.