



Oscar Ruiz Cigarrillo

PhD. Candidate in Applied Sciences

- July 13th 1993
- San Luis Potosí, México
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- <https://github.com/RUC013>
- ruizoscar.1393@gmail.com

Skills

Linux, MacOS, Windows

Python

Fortran

MATLAB

C++

Mathematica

LaTeX

Julia

C

Languages

English

Spanish

Education

- Desde 2017 PhD candidate in Applied Science (Photonics)
Universidad Autónoma de San Luis Potosí, México
"Study of optical anisotropy in coupled quantum wells, a novel source unperturbed systems"
- 2015-2017 Master degree in Applied Science (Photonics)
Universidad Autónoma de San Luis Potosí, México
"Growth and Characterization of Semiconductor Optical Microcavities"
- 2011-2015 Bachelor degree in physics engineering
Universidad Autónoma de San Luis Potosí, México
Grade: 9.2/10

Publications

- 2017 ["Optical detection of graphene nanoribbons synthesized on stepped SiC surfaces"](#)
L.F. Lastras-Martínez, J. Almendarez-Rodríguez, G. Flores-Rangel, N.A. Ulloa-Castillo, O. Ruiz-Cigarrillo, C.A. Ibarra-Becerra, R. Castro-García, R.E. Balderas-Navarro, M.H. Oliveira Jr and J.M.J. Lopes, *Journal of Applied Physics* 122(3), 035701, (2017)
- 2017 ["Microscopic optical anisotropy of exciton-polaritons in a GaAs-based semiconductor microcavity"](#)
L.F. Lastras-Martínez, E. Cerda-Méndez, N.A. Ulloa-Castillo, R. Herrera-Jasso, L. E. Rodríguez-Tapia, O. Ruiz-Cigarrillo, R. Castro-García, K. Biermann, P. V. Santos. *Physical Review B*, 2017, vol. 96, no 23, p. 235306
- 2019 ["Differential reflectance contrast technique in near field limit: Application to graphene"](#)
L.F. Lastras-Martínez, D. Medina-Escobedo, G. Flores-Rangel, R.E. Balderas-Navarro, O. Ruiz-Cigarrillo, R. Castro-García, M. del P. Morales-Morelos, J. Ortega-Gallegos, M. Losurdo. *AIP Advances*, 2019, vol. 9, no 4, p. 045309
- 2021 ["Optical contrast in the near-field limit for structural characterization of graphene nanoribbons"](#)
G. Flores-Rangel, L.F. Lastras-Martínez, R. Castro-García, O. Ruiz-Cigarrillo, R.E. Balderas-Navarro, L.D. Espinosa-Cuellar, A. Lastras-Martínez, J.M.J. Lopes. *AIP Advances*, Volume 536, 15 January 2021, 147710
- 2021 ["Optical anisotropies of asymmetric double GaAs \(001\) quantum wells"](#)
O. Ruiz-Cigarrillo, L. F. Lastras-Martínez, E. A. Cerda-Méndez, et al. *Physical Review B*, 2021, vol. 103, no 3, p. 035309.

Awards

- 2017 Third place, Research level in the poster competition Teaching and Research 2017 "Fis. Candelario Pérez Rosales", XVII Week
- 2018 Third place, Research level in the poster competition Teaching and Research 2018 "Fis. Candelario Perez Rosales", XVIII Semana.



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Python

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Languages

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Experience

- | | |
|-----------|---|
| 2017 | Complex Variable, Electromagnetism
UASLP
Assistant professor |
| 2017 | Creating and Editing Scientific Documents in LaTeX: Basic Course
Complex Variable, Electromagnetism
Course
UASLP |
| 2017 | Physics
Secondary level
Professor |
| 2019-2020 | Calculus (Difference and Integral), Physics I, Physics II, Probability and Statistics, Mathematics I (Algebra), Mathematics III (Analytic Geometry)
High School level
Professor |
| 2019-2020 | Programming, Operating Systems, Calculus (Difference and Integral), Physics I, Physics II, Probability and Statistics, Higher Algebra
University level
Professor |

Participation National Conferences

- | | |
|------|---|
| 2016 | National Physics Congress
Growth and Characterization of Optical Microcavities of (Al,Ga)As.
Poster |
| 2017 | X Annual Meeting of the Quantum Information Division
Advances in III-V microcavity growth for solid-state quantum condensates
Poster |
| 2017 | National Physics Congress
In-situ and real-time optical growth and characterization of (Al,Ga)As microcavities.
National Physics Congress
Talk |
| 2018 | Solid State Division Annual Meeting
Detection of Indirect Excitons in Coupled Quantum Wells Using Photoreflectance
Talk |
| 2019 | Solid State Division Annual Meeting
Study of Indirect Excitons and Trions in coupled asymmetric quantum wells
Poster |

Interests

Solid State Physics, Semiconductors, Computational Physics, Light-Matter Interaction, Experimental Physics, Programming, Open-Source Operating Systems, Teaching.