

Juan S. Rojas-Arias



Contact

Address:

Confort Higashi Asaka 602
2-1-5 Nakacho, Asaka-shi,
Saitama
Japan, 〒351-0006

Phone:

+81 070 4196 7012

Email:

juansra@gmail.com

LinkedIn:

linkedin.com/in/juan-rojas-arias

ORCID:

0000-0003-3669-0288

Languages

Spanish – Native
English – Fluent
Japanese – Conversational

Programming

- Python
- LaTeX

Summary

Quantum computing researcher with over 7 years of experience in the study of noise affecting quantum processors and the theoretical modeling of semiconductor quantum devices, with a particular focus on spin qubits. Proficient in Python and skilled in data analysis, scientific writing, and presenting at conferences. Committed to advancing the field of quantum computing through rigorous research and collaboration.

Experience

Nov 2022 - Present	RIKEN Postdoctoral Researcher Semiconductor Quantum Device Theory Research Team
Sep 2019 - Oct 2022	RIKEN Research Associate Quantum Functional System Research Group – Semiconductor Quantum Device Theory Research Team
Apr 2019 - Sep 2019	RIKEN Research Part-time Worker I Quantum Functional System Research Group

Education

Sep 2016 - Sep 2022	The University of Tokyo PhD in Applied Physics <i>Supervisor: Prof. Seigo Tarucha</i> Tokyo, Japan
Sep 2014 - Aug 2016	Universidad Nacional de Colombia Master of Science - Physics Bogota, Colombia
Jan 2010 - Sep 2014	Universidad Nacional de Colombia Bachelor of Science - Physics Bogota, Colombia

Key publications

- J. Yoneda, **J. S. Rojas-Arias** et al., “Noise-correlation spectrum for a pair of spin qubits in silicon”, [Nature Physics 19, 1793 \(2023\)](#)
- **J. S. Rojas-Arias** et al., “Spatial noise correlations beyond nearest neighbors in $^{28}\text{Si}/\text{Si-Ge}$ spin qubits”, [Phys. Rev. Applied 20, 054024 \(2023\)](#)
- **J. S. Rojas-Arias** et al., “The origins of noise in the Zeeman splitting of spin qubits in natural-silicon devices”, [arXiv:2408.13707 \(2024\)](#)
- Á. Gutiérrez-Rubio, **J. S. Rojas-Arias** et al., “Bayesian estimation of correlation functions”, [Phys. Rev. Research 4, 043166 \(2022\)](#)

Recognitions and honors

Feb 2016 - Aug 2019	Monbukagakusho Scholarship <i>MEXT</i> Tokyo, Japan
Sep 2014 - Dec 2015	Teaching Assistant Fellowship <i>Universidad Nacional de Colombia</i> Bogota, Colombia