LUIS E. F.

FOÀ TORRES

Condensed matter physicist · Full Professor, University of Chile

luis.foatorres@uchile.cl
+56 9 8349 0698
www.foatorres.com · Santiago, Chile

81 publications incl. a Cambridge University Press book · 6,000+ citations · h-index 34 (Google Scholar, 10/2026) · 61 invited & plenary talks · reviewer for 25 agencies & institutions · 18 doctoral examination juries

Name in publications: Luis E. F. Foa Torres · born April 17, 1978, Córdoba, Argentina · Argentine citizenship

CAREER

2023–	**Full Professor**, University of Chile (FCFM). Team leader: quantum transport, two-dimensional materials, topological insulators.
2024–2026	**Director of the Physics Department**, FCFM, University of Chile.
2020–2025	**Simons Associate**, Abdus Salam ICTP, Trieste.
2016–2023	**Associate Professor**, University of Chile (FCFM).
2015	**CONICET Independent Research Scientist**, University of Córdoba, Argentina.
2011–2016	**Junior Associate**, Abdus Salam ICTP, Trieste.
2009–2015	**Adjoint/Associate Professor**, National University of Córdoba (UNC), Argentina.
2009–2014	**CONICET Adjoint Research Scientist**, University of Córdoba, Argentina.
2008–2009	**Humboldt Research Fellow**, TU Dresden, Germany.
2004–2008	**Postdoctoral positions**: Abdus Salam ICTP, Trieste (2004–05); CEA-Grenoble, France (2005–07); TU Dresden, Germany (2007–09).

EDUCATION

08.2004	**Ph.D. in Physics**, National University of Córdoba (UNC), Argentina. Advisor: Prof. Horacio M. Pastawski.
12.1999	**Licenciado en Física** (M.Sc.), National University of Córdoba (UNC), Argentina.

RECORD

81	publications incl. 20 letters (PRL, Nano Letters, APL, PRB-R, EPL), 1 invited topical review, and 1 book (Cambridge University Press); 49 as first or last author.
6,000+	citations, **h-index 34** (Google Scholar, October 2026); top 2% worldwide in every annual edition 2021–2026, career-long since 2024 (Stanford/Elsevier bibliometric study).
61	invited and plenary talks at international conferences and meetings; 21 further invited talks and colloquia at universities and research institutes.
	Fields of expertise: quantum transport at the nanoscale; driven systems and electron-phonon interaction effects; two-dimensional materials; topological insulators; non-Hermitian systems.

AWARDS AND HONORS

2020–2025	Simons Associate, Condensed Matter Section, ICTP, Trieste.
2020, 2021	Best Teacher Award, Universidad de Chile.
2018	ICTP Prize, Abdus Salam International Centre for Theoretical Physics.
2018	Outstanding Referee, American Physical Society (lifetime award).
2011	Joven Sobresaliente del año 2011, Córdoba's Stock Exchange, Argentina.
2008–2009	Humboldt Research Fellow, Alexander von Humboldt Foundation.

HONORARY FUNCTIONS AND REVIEWING

2024–	Associate Editor, Physical Review Research.
2022–2024	Divisional Associate Editor, Physical Review Letters.
2023–	Peer Review Ambassador, Institute of Physics (IOP).
2020–2024	Editorial Fellow (Physics), SciPost.
2020–	Editorial board, Journal of Physics Materials (IOP).
	Reviewer for 25 agencies and institutions across fifteen countries, incl. NSF, ERC, ANR, FWF, and NWO; referee for APS, ACS, RSC, AIP, IoP, NPG, and Elsevier journals.
	Examiner for 18 doctoral theses in Argentina, Chile, India, and the United States (2010–2026).

TEACHING AND SUPERVISION

	15+ years teaching at graduate and undergraduate level in Argentina, France, Germany, and Chile — from Introduction to Physics to Quantum Transport and Quantum Mechanics.
23	supervisions of younger colleagues: 10 at Master's level (1 ongoing), 5 PhD students, 6 postdocs, 2 early stage researchers.

SELECTED SCIENTIFIC ACHIEVEMENTS

2018 → 2019–21

Anomalous localization in non-Hermitian lattices, whereby a pristine lattice may become devoid of extended states — later named the non-Hermitian skin effect.

Predicted: Martinez-Alvarez et al., Physical Review B **97**, 121401(R) (2018) — most-cited of the ∼**5,200** *Physical Review B* articles that year (Web of Science, September 2026), top 1% of the Physics literature · **Observed:** in mechanical systems, a quantum walk with photons, topoelectrical circuits, and active matter (Nature Communications 2019; Nature Physics 2020; Physical Review Research 2020; Nature Communications 2021).

2011 → 2025

A mid-infrared laser to induce and tune a bandgap in graphene.

Predicted: Calvo et al., Applied Physics Letters **98**, 232103 (2011) · **Observed:** in graphene by two independent groups — Merboldt et al. & Choi et al., Nature Physics **21**, 1093 & 1100 (2025).

2014 → 2020

A light-induced Hall response in graphene — its rough plateau not matching the channel count.

Predicted: Perez-Piskunow et al., Physical Review B **89**, 121401(R) (2014); Foa Torres et al., Physical Review Letters **113**, 266801 (2014) — core papers of an emerging research front on periodically driven systems (Web of Science) · **Observed:** McIver et al., Nature Physics **16**, 38 (2020).

Full publication list: foatorres.com/publications.