

Dr. Unai Alvarez-Rodriguez

Spoken languages:

- Spanish
- Basque
- English

Programming languages:

- c++ (2018-2020)
- python (2018-2020)
- matlab (2014-2017)

Academic degrees:

- Grade in Theoretical Physics, University of the Basque Country, July 2011.
- Master in Quantum Science and Technology, University of the Basque Country, September 2012.
- PhD in "Quantum Biomimetics", University of the Basque Country, November 2016.

Current position:

- Postdoc at Basque Centre for Climate Change (2018-2020).

Previous positions:

- Visiting researcher at the School of Mathematical Sciences at Queen Mary University London (2018-2019).
- Postdoc at the University of the Basque Country (2017).
- PhD student at the University of the Basque Country (2013-2016).

Research lines:

- Complex Systems and Networks (2018-2020).
- Quantum Information (2013-2017).

Grants:

- Postdoctoral grant of the Basque Government (2018-2020).
- New Doctor's grant of the University of the Basque Country (2017).
- Predoctoral grant of the Basque Government (2013-2016).

Publications:

- U. Alvarez-Rodriguez, F. Battiston, G. F. de Arruda, M. Perc, and V. Latora, Nat. Hum. Behav (2021).
- S. Balbi, U. Alvarez-Rodriguez, V. Latora, A. Antonioni, and F. Villa, Reg. Environ. Change 20, 63 (2020).
- L. Lamata, U. Alvarez-Rodriguez, J. D. Martín-Guerrero, M. Sanz, and E. Solano, Quantum Sci. Technol. 4, 014007 (2018).
- U. Alvarez-Rodriguez, M. Sanz, L. Lamata and E. Solano, Sci. Rep. 8, 14793 (2018).
- U. Alvarez-Rodriguez, L. Lamata, P. Escandell-Montero, J. D. Martín-Guerrero, and E. Solano, Sci. Rep. 7, 13645 (2017).
- R. Li, U. Alvarez-Rodriguez, L. Lamata, and E. Solano, Quantum Meas. Quantum Metrol. 4, 1 (2017).
- U. Alvarez-Rodriguez, A. Perez-Leija, I. L. Egusquiza, M. Gräfe, M. Sanz, L. Lamata, A. Szameit, and E. Solano, Sci. Rep. 7, 42933 (2017).
- U. Alvarez-Rodriguez, R. Di Candia, J. Casanova, M. Sanz, and E. Solano, Phys. Rev. A 95, 020301(R) (2017).
- U. Alvarez-Rodriguez, U. Las Heras, E. Solano, and M. Sanz, Phys. Rev. Lett. 116, 230504 (2016).
- U. Alvarez-Rodriguez, M. Sanz, L. Lamata, and E. Solano, Sci. Rep. 6, 20956 (2016).
- T. Lee, U. Alvarez-Rodriguez, X.-H. Cheng, L. Lamata, and E. Solano, Phys. Rev. A 92, 032129 (2015).
- X.-H. Cheng, U. Alvarez-Rodriguez, L. Lamata, X. Chen, and E. Solano, Phys. Rev. A 92, 022344 (2015).
- U. Alvarez-Rodriguez, M. Sanz, L. Lamata, and E. Solano, Sci. Rep. 5, 11983 (2015).

- U. Alvarez-Rodriguez, M. Sanz, L. Lamata, and E. Solano, *Sci. Rep.* 4, 4910 (2014).
- U. Alvarez-Rodriguez, J. Casanova, L. Lamata, and E. Solano, *Phys. Rev. Lett.* 111, 090503 (2013).

#### Research Visits and Seminars:

- Research Visit to Group of Prof. Aspelmeyer, University of Vienna, Austria (June 2013).
- Invited talk in IV Jornadas de Investigación de la Facultad de Ciencia y Tecnología, Leioa, Spain (February 2014)
- Research Visit and Invited Seminar in Ion Trap Group at UC Berkeley, Berkeley, USA (July 2014).
- Research Visit and Invited Seminar in NASA's Ames Research Center, USA (July 2014).
- Research Visit and Invited Seminar in Berkeley Quantum Information & Computation Center, Berkeley, USA (July 2014).
- Invited Seminar in Department of Electrical and Electronics, Leioa, Spain (March 2015).
- Research Visit in Walther Meissner Institute, Munich, Germany (July 2015).
- Research Visit and Invited Seminar in the Institute of Applied Physics, Jena, Germany (November 2015).
- Invited Seminar in Martes Cuanticos, University of Zaragoza, Spain (December 2015).
- Research Visit to Intelligent Data Analysis Laboratory, Valencia (February 2016).
- Invited Seminar in I Jornadas Doctorales de la UPV/EHU, Bilbao, Spain (July 2016).
- Research Visit and Invited Seminar in University of Massachusetts Boston, Boston (March 2017).
- Research Visit to NorthEastern University, Boston (March 2017).
- Research Visit to Harvard University, Boston (March 2017).
- Research Visit and Invited Seminar to Massachusetts Institute of Technology, Boston (March 2017).
- Research Visit to Universitat Rovira i Virgili, Tarragona (April 2017).
- Research Visit to Institute for Biocomputation and Physics of Complex Systems, Zaragoza (April 2017).
- Research Visit to Queen Mary University of London, London (May 2017).
- Research Visit and Invited Seminar in Basque Centre for Climate Change, Leioa (June 2017).
- Research Visit to Università di Catania, Catania (November-December 2019).

#### International Schools and Congresses:

- International Workshop "Quantum Simulations", organized by E. Solano and Göran Wendin. Universidad del País Vasco UPV/EHU, Leioa, Spain (22-25 October 2012). Attendee.
- International School "Open Systems and the Quantum-Classical Boundary", organized by Irene Burghardt, Sara Bonella, Giovanni Ciccotti, Angel S. Sanz Ortiz. University of Rome La Sapienza, Italy (8-12 April 2013). Attendee.
- International Workshop "Quantum Effects in Biological Systems", organized by Alipasha Vaziri. Institute for Molecular Biotechnology, Vienna, Austria (29 June- 3 July 2013). Poster session.
- International Workshop "Quantum Simulations", organized by I. Bloch, G. Johansson, F. Schmidt-Kaler, E. Solano and C. Wilson. Centro de Ciencias Pedro Pascual, Benasque, Spain (29 September- 4 October 2013). Poster session.
- International Workshop "ICE-1" organized by F. Luis, D. Zueco, M. D. Jenkins, Universidad de Zaragoza, Zaragoza, Spain (25-27 June 2014). Poster session.
- International School and Workshop "Strongly Correlated Fluids of Light and Matter", ECT\*, Villazzano, Italy (12-23 January 2015). Poster presentation.
- International Workshop "ICE-2" organized by I. L. Egusquiza and L. Lamata, UPV/EHU, Bilbao, Spain (1-3 June 2015). Poster session.

- International School "Integrated quantum photonics applications: from simulation to sensing", University of Rome La Sapienza, Rome, Italy (4-8 July 2016). Poster session.
- International Workshop "Crossroads in Complex Systems", IFISC, Mallorca, Spain (5-8 June 2017). Contributed talk.
- International Workshop "Assessment of the sustainability of complex social-ecological systems at different scales: methods, tools and approaches", University of Kiel, Kiel, Germany (26-27 September 2018). Invited talk.
- International School "International Spring University on Ecosystem Services Modeling", BC3, Bilbao, Spain (20-24 May 2019). Short Talk.
- International School "Transformation, Adaptation and Mitigation for a 1.5 degree Global Warming", BC3, Bilbao, Spain (8-10 July 2019). Attendee.

Press:

- [MIT Technology Review](#)
- [Phys.org](#)
- [Phys.org](#)
- [Zientzia Kalera](#)
- [MATERIA](#)
- [MIT Technology Review](#)
- [MIT Technology Review](#)

Impact Highlights:

- Most Highly Accessed article of the year in the Physics section of Scientific Reports (2018).
- Top 25 Highly Accessed article of the year in the Physics section of Scientific Reports (2017).