Personal data:

Name: Aritz **Surname:** Herrero

Date of birth: 08/09/1993 **Nationality:** Spanish

Mobile phone: +34 685709238 **Email:** aritz.herrero@ehu.eus

Address: C/Lizarre, Nº11, 1C, 48600, Sopela, Bizkaia, Basque Country, Spain

Current professional situation:

Full time pre-doctoral researcher in formation and second year PhD Student at the University of The Basque Country, Applied Physics I department, Faculty of Engineering of Bilbao.

Education:

University degree: Bachelor in Physics
University: University of the Basque Country
Degree Thesis: "Excitonic energies calculation using Time Dependent Density Functional Theory (TDDFT)". Mark: 9.5 (out of 10)
Average mark: 8.67 (out of 10) **Date of qualification:** 2015
Prize: Graduate with Excellence

Postgraduate university studies: Master in space science and technology
University: University of the Basque Country
Master Thesis: "Critical behaviour study of magnetic transitions in intermetallics of the family R_3Co (R=Rare earth) by means of ac photopyroelectric calorimety". Mark: 10 (out of 10)
Average mark: 9.47 (out of 10) **Date of qualification:** 2017
Prize: Extraordinary prize to the best master record

Language Skills:

Mother tongues: Spanish and Basque
English: C1

Scientific and technological activities:

Research Projects:

Name of the project: Critical behaviour study of magnetic phase transitions in intermetallics
Contribution: Collaborator **Funding entity:** University of the Basque Country
Start date: 19/09/2017 **Duration:** 4 years

Publications:

- **Comprehensive study of the magnetic phase transitions in Tb_3Co combining thermal, magnetic and neutron diffraction measurements**
  A. Herrero, A. Oleaga, A. Gubkin, M. Frontzek, A. Salazar, N. Baranov (Submitted to Intermetalics) IF: 3.420 (Q1)

- **Study of the magnetocaloric effect in intermetallics RTX (R=Nd, Gd; T=Sc, Ti; X=Si, Ge)**

A. Herrero, A. Oleaga, P. Manfrinetti, A. Provino, A. Salazar, Intermetallics. 110, 106495 (2019) IF: 3.420 (Q1)

- **Critical behavior of the ferromagnetic transition in GdSc(Si,Ge) intermetallic compounds**
  A. Herrero, A. Oleaga, P. Manfrinetti, A. Provino, A. Salazar, Intermetallics. 101, pp. 64 – 71 (2018) IF: 3.420 (Q1)

- **Critical behavior of magnetic transitions in Dy_3Co single crystal**
  A. Herrero, A. Oleaga, A. Salazar, A. F. Gubkin, N. V. Baranov. Journal of Alloys and Compounds. 741, pp. 1163- 1168 (2018) IF: 3.779 (Q1)

International conferences:

Title of the work: *ac* photopyroelectric calorimetry applied to the study of the critical behavior of magnetic transitions in intermetallic materials
A. Herrero, A. Oleaga, P. Manfrinetti, A. Provino, A. Salazar.
Name and place of the conference: 20-th International Conference on Photoacoustic and Photothermal Phenomena (Moscow, Russia)
Date of event: 07/07/2019 - 12/07/2019
Type of communication: Oral (Abstract submitted and accepted)

Title of the work: Critical behavior and magnetocaloric effect in GdSc(si,Ge) intermetallics
A. Herrero, A. Oleaga, P. Manfrinetti, A. Provino, A. Salazar.
Name and place of the conference: 2019 Joint MMM-Intermag (Washington, DC, United States of America)
Date of event: 14/01/2019 - 18/01/2019
Type of communication: Oral

Title of the work: Critical behavior of the antiferromagnetic transitions in intermetallics R_3T (R=Dy, Tb,T=Co, Ni)
A. Herrero, A. Oleaga, A. Salazar, A. Gubkin, N. V. Baranov
Name, place and date of the conference: 2019 Joint MMM-Intermag (Washington, DC, United States of America)
Date of event: 14/01/2019 - 18/01/2019
Type of communication: Oral

Title of the work: ac photopyroelectric calorimetry applied to the study of critical behavior of magnetic transitions in R3Co single crystals (R=rare earth)
A. Herrero, A. Oleaga, A. Salazar, A. Gubkin, N. V. Baranov
Name and place of the conference: INTERNATIONAL SCHOOL OF QUANTUM ELECTRONICS 62nd Course Progress in Photoacoustic & Photothermal Phenomena Focus on BIOMEDICAL, NANOSCALE, NDE and THERMOPYSICAL PHENOMENA and TECHNOLOGIES (Erice, Sicily, Italy)
Date of event: 06/09/2018 - 12/09/2018
Type of communication: Oral

Title of the work: Critical Behavior Study of the Magnetic Transitions in R_3Co (R=Rare Earth) by Means of Ac Photopyroelectric Calorimetry
A. Herrero, A. Oleaga, A. Salazar, A. Gubkin, N. V. Baranov

Name and place of the conference: Twentieth Symposium on Thermophysical Properties (Boulder, Colorado, United States of America)
Date of event: 25/06/2019 - 29/06/2019
Type of communication: Oral

Title of the work: Thermal Diffusivity and Critical Behavior of RSc(Si, Ge) (R=rare earth) Intermetallic Compounds
A. Oleaga, A. Herrero P. Manfrinetti, A. Provino, A. Salazar.
Name and place of the conference: Twentieth Symposium on Thermophysical Properties (Boulder, Colorado, United States of America)
Date of event: 25/06/2019 - 29/06/2019
Type of communication: Oral

Title of the work: ac photopyroelectric calorimetry applied to the study of critical behavior of magnetic transitions in R_3Co single crystals (R=rare earth)
A. Herrero, A. Oleaga, A. Salazar, A. Gubkin, N. V. Baranov
Name and place of the conference: INTERNATIONAL SCHOOL OF QUANTUM ELECTRONICS 62nd Course Progress in Photoacoustic & Photothermal Phenomena Focus on BIOMEDICAL, NANOSCALE, NDE and THERMOPYSICAL PHENOMENA and TECHNOLOGIES (Erice, Sicily, Italy)
Date of event: 06/09/2018 - 12/09/2018
Type of communication: Oral

Stays in public or private R&D centres:

Entity: ESRF & ILL
City: Grenoble, France
Duration: 1 month (2014)
Goals of the stay: X-Ray and Neutron Science International Student Summer Programme ESRF/ILL
a) an introductory course (25h) covering the fundamental concepts of x-rays and neutrons and their application to modern science
b) a four-week tutored work on a scientific project in one of the research groups at the ILL or ESRF

Other achievements:

- International School: "Foundations of Photothermal and PhotoacousticTechniques: Theory, Instrumentation and Applications"
  Univerza V Novi GoriciConferral (2018)

- Improving Oral Communication Skills for English Medium Instruction course
  University of the Basque Country (2019)

- Course: “Equality between women and men”
  University of the Basque Country (2019)