# Maitane Muñoz Basagoiti

Postdoctoral researcher

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### **EDUCATION**

• 2019–2022: Ph.D. in Physics, ESPCI, France

• 2017–2019: M.Sc. in General Physics, Lund University, Sweden

• 2013–2017: B.Sc. in Physics, University of the Basque Country, Spain

# ACADEMIC APPOINTMENTS

• 2023—now: IST-BRIDGE postdoctoral fellow

Institute of Science and Technology Austria (ISTA), Austria

Advisor: Andela Šarić

• 2019–2022: Ph.D. candidate

École de Physique et de Chimie Industrielles de la ville de Paris (ESPCI), France

Advisors: Zorana Zeravcic and Olivier Rivoire

#### SCHOLARSHIPS AND AWARDS

• 2023–2025: IST-BRIDGE Fellowship

• 2019–2022: Marie Sklodowska-Curie Actions (MSCA) Fellowship European Union's Horizon 2020 research and innovation UPTO Paris program.

• July 2021: Poster Competition, first prize

During the Fundamental Problems in Statistical Physics XV summer school in Bruneck, Italy.

• March 2021: "My PhD Thesis in 5 minutes" outreach competition, first prize Scientific outreach competition during PC Focus at ESPCI.

# Publication List

- 1. M. Muñoz Basagoiti, O. Rivoire and Z. Zeravcic, "Catalysis from the Bottom up", arXiv:2211.12107 (2022) (accepted for publication in *Soft Matter*)
- 2. A. McMullen\*, M. Muñoz Basagoiti\*, Z. Zeravcic and J. Brujic, "Self-assembly Through Programmable Folding", *Nature* **610** 502-506 (2022) (Asterisk (\*) represents equal contribution.)
- 3. D. Bennet, M. Muñoz Basagoiti and E. Artacho, "Electrostatics and domains in ferroelectric superlattices", R. Soc. Open Sci. 7 201270 (2020)

# Conferences & Summer Schools

#### Talks in Conferences and Seminars

- March 2022: APS March Meeting Conference (Chicago, US)

  Design rules of two-dimensional colloidomer folding
- January 2022: Journées de Physique Statistique (ENS, Paris, France)

  Designing catalysis from the bottom-up
- October 2021: Nanomechanics Group Seminar (NTNU, Norway)

  Physical and Geometrical constraints of efficient catalysis
- April 2021: DMREF meeting (Online)
  Invitation by Prof. Itai Cohen
- March 2021: APS March Meeting Conference (Online)

  Physics and Evolution of Catalysis

#### Posters & Summer Schools

- Max Bergmann Symposium, poster (Dresde, Germany, July 2022)
- Fundamental Problems in Statistical Physics XV Summer School, poster (Bruneck, Italy, July 2021)
- CRC 235 Molecular Origins of Life Conference, poster (Munich, Germany, July 2020)
- TAU-ESPCI Self-Assembly and Self-Organisation Summer School (Tel-Aviv, Israel, 2019)
- Lorentz Centre Quantum Revolution Summer School (Leiden, The Netherlands 2015)

# TEACHING AND SEMINAR ORGANIZATION

- 2020–2022: Organizer of the Molecular Evolution Journal Club (Gulliver Lab, ESPCI) Weekly journal club with a focus on molecular biology for an interdisciplinary audience.
- Spring 2021: Internship Advisor/Mentor at CIRB (Collège de France)

  Mentored undergraduate student for 60 hours.
- 2020: Undergraduate Project Assistant (immersion days, ESPCI)

  Co-supervised the project "Numerically Exploring Self-Assembly with Colloidal Particles".
- 2020: Teaching Assistant (ESPCI)

  Course focused on numerical analysis in Matlab (undergraduate course)

# Outreach Activities

- Co-organized the "Picture a Scientist" movie screening and round table (ESPCI, 2021) Activities organized for the International Women's Day to increase the visibility of women in research.
- Lead a survey to assess gender inequality in research at ESPCI (ESPCI, 2021) Results are being used to elaborate a report on gender equality at ESPCI.
- Organized stand at the "Fête de la Science" (Paris, 2021)
  Discussed toy models of protein folding and self-assembly with children aged 6-11.
- Volunteer at DECLICS (Dialogues Between Researchers and Students) (Paris, 2019) Visited several french high schools to discuss science and research with teenagers.

#### LANGUAGES

- Programming and Software: C++, Python, Matlab, Wolfram Mathematica, Illustrator, Ovito.
- Spoken languages: Spanish (mother tongue), English (fluent), French (fluent), Basque (fluent).

# REFERENCES

- Prof. Zorana Zeravcic (ESPCI, Paris), zorana. <br/>zeravcic@espci.fr
- Dr. Olivier Rivoire (Collège de France, Paris), olivier.rivoire@espci.fr
- Prof. Jasna Brujic (NYU), jb2929@nyu.edu