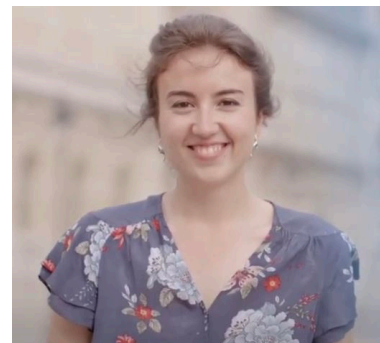


Maitane Muñoz-Basagoiti



IST-BRIDGE MSCA Postdoctoral Fellow
Institute of Science and Technology Austria (ISTA)
3400 Klosterneuburg, Austria
maitane.munoz-basagoiti@ista.ac.at

EDUCATION

- **2019–2022:** Ph.D. in Physics, ESPCI Paris, 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

- **Mar 2023–now:** IST-BRIDGE MSCA postdoctoral fellow
Institute of Science and Technology Austria (ISTA), Austria
Advisor: Andela Šarić
- **Sept 2019–Dec 2022:** Ph.D. candidate
École de Physique et de Chimie Industrielles de la ville de Paris (ESPCI Paris), France
Advisors: Zorana Zeravcic and Olivier Rivoire

SCHOLARSHIPS AND AWARDS

- **2023–2025:** IST-BRIDGE MSCA independent fellowship (Estimated in 164k €)
- **2019–2022:** Marie Skłodowska-Curie Actions Ph.D. fellowship (Estimated in 72k €)
European Union's Horizon 2020 Research and Innovation UPTO Paris program.
- **July 2021:** Poster Competition, first prize
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 Paris (France).
- **2013-2017:** 11 “*Matrículas de Honor*” (40% of Bachelor's degrees courses)
Honors mentions, awarded to a single student per year and per course.

PUBLICATION LIST

1. M. Muñoz-Basagoiti, M. Wassermair, A. Amaral, B. Baum and A. Šarić, “Shape through gradients: Deformations of chemically active membranes” (in preparation, 2024)
2. M. Muñoz-Basagoiti*, B. Meadowcroft*, A. Prada*, M. Amaral*, F. Frey* and A. Šarić, “A guide to modelling lipid membranes *in silico*” (review article, to be submitted, 2024)
3. Y. Sakref, M. Muñoz-Basagoiti, Z. Zeravcic and O. Rivoire, “On Kinetic Constraints That Catalysis Imposes on Elementary Processes”, *J. Phys. Chem. B* **127** 10950–10959 (2023)
4. M. Muñoz-Basagoiti, O. Rivoire and Z. Zeravcic, “Computational design of a minimal catalyst using colloidal particles with programmable interactions”, *Soft Matter* **19** 3933-3939 (2023)
5. A. McMullen*, M. Muñoz-Basagoiti*, Z. Zeravcic and J. Brujic, “Self-assembly Through Programmable Folding”, *Nature* **610** 502-506 (2022)
6. D. Bennet, M. Muñoz-Basagoiti and E. Artacho, “Electrostatics and domains in ferroelectric superlattices”, *R. Soc. Open Sci.* **7** 201270 (2020)

Asterisk (*) represents equal contribution.

CONFERENCES & SUMMER SCHOOLS

Contributed talks in conferences and seminars

- **ISTA Think & Drink Sessions** (ISTA, Austria; March 2024)
- **7th International Soft Matter Conference** (Osaka, Japan; September 2023)
- **APS March Meeting Conference** (Chicago, US; March 2022)
- **Journées de Physique Statistique** (ENS Paris, France; January 2022)
- **Nanomechanics Group Seminar** (NTNU Norway, Online; October 2021)
- **DMREF meeting** (Stanford, Online; April 2021)
- **APS March Meeting Conference** (Online; March 2021)

Posters & Summer Schools

- **CECAM Flagship Workshop**, poster (Lausanne, Switzerland, July 2024)
- **Vienna Soft Matter Days**, poster (Vienna, Austria, December 2023)
- **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 MENTORING EXPERIENCE

Teaching

- **September 2024:** Attendance to workshop *Teaching and didactics* (ISTA, Austria)
- **Spring 2024: Introduction to Molecular Dynamics with Python**, main instructor (ISTA, Austria)
Developed and taught a 6-week course to introduce ISTA PhD students to MD simulations.
- **Autumn 2020: Numerical analysis in Matlab**, Teaching Assistant (ESPCI Paris, France)
Guided and supervised exercise sessions for first year ESPCI students.
- **Autumn 2020: Undergraduate Project Assistant** (immersion days, ESPCI Paris, France)
Developed and supervised a 2-day workshop on self-assembly for first year ESPCI students.

Mentoring

- **Summer 2023: Summer internship supervisor of Master student Maja Milas** (ISTA, Austria)
Developed a coarse-grained computational model of the archaelal S-layer.
- **Summer 2022: Summer internship co-supervisor of Master's student Michael Wassermair** (ISTA, Austria)
*Coupled TriMem (Siggel et al., 2022) to LAMMPS to simulate triangulated networks.
Repository is available github.com/Saric-Group/trimem_sbeady*
- **Spring 2021: L3 Internship supervisor of Adrien Bérard at CIRB** (Collège de France, France)
Studied the application of the Kramers' escape problem to catalysis.

COMMUNITY INVOLVEMENT

- **2024: Organizer of the Soft Matter Journal Club** (ISTA, Austria)
- **2020–2022: Organizer of the Molecular Evolution Journal Club** (ESPCI Paris, France)
- Contributed to reviews for *Reviews of Modern Physics*, *PNAS* and *Langmuir*.

LANGUAGES

- **Programming:** C/C++, Python, LAMMPS, Bash, git/GitHub, Matlab, Wolfram Mathematica, Illustrator, OVITO.
Experience with HPC clusters and Slurm.
- **Spoken languages:** Spanish (mother tongue), English (fluent), French (fluent), Basque (fluent).

OUTREACH ACTIVITIES

- **Volunteer at 'ZOOM a Scientist'** (VISTA, Austria, 2023-2024)
ZOOM Austrian high-school students to discuss research.
- **Co-organized the "Picture a Scientist" movie screening and round table** (ESPCI, France, 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 Paris** (ESPCI Paris, France, 2021)
Results are being used to elaborate a report on gender equality at ESPCI.
- **Organized stand at the "Fête de la Science"** (Paris, France, 2021)
Discussed toy models of protein folding and self-assembly with children aged 6-11.
- **Volunteer at DECLICS (Dialogues Between Researchers and Students)** (Paris, France, 2019)
Visited several french high schools to discuss science and research with teenagers.

REFERENCES

- Zorana Zeravcic (ESPCI Paris), zorana.zeravcic@espci.fr
- Andela Šarić (ISTA), andela.saric@ista.ac.at
- Olivier Rivoire (ESPCI Paris), olivier.rivoire@espci.fr
- Jasna Brujic (NYU), jb2929@nyu.edu