

EAVAN FITZGERALD

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DOB: 16/02/1999 | Nationality: Irish

RESEARCH INTERESTS

Experimental probing of polar active matter systems, currently working with magnetic active rollers to design dynamically reconfigurable collective states, to explore the existence of topological phenomena in active fluids.

EDUCATION

Sep 2022-present	PhD candidate at the Institute of Science & Technology Austria, AT Supervised by Assistant Prof. Scott Waitukaitis
Sep 2017-May 2021	First Class Honors, B.A. (Mod) Experimental Physics in Trinity College Dublin, IRL Thesis supervised by Prof. J.M.D. Coey

AWARDS & SCHOLARSHIPS

Aug 2025	EUROMECH Young Scientist Award, 2 nd European Fluid Dynamics Conference, IRL
Oct 2021	Gold Medal for Academic Excellence awarded upon conferral by Trinity College Dublin, IRL
Jun-Aug 2020	SURE internship, Trinity College Dublin, IRL
Mar 2019	Bursary to attend Conference for Undergraduate Women in Physics at Oxford University, UK

PUBLICATIONS

Fitzgerald, E., Clavaud, C., Das, D., Lenton, I. C., & Waitukaitis, S. R. (2025). Rolling at right angles: Magnetic anisotropy enables dual-anisotropic active matter. *Physical Review E*, 112(6), 065418.

Fitzgerald, E., Kumar, A., Poulouse, S., & Coey, J. M. D. (2024). Interaction and Stability of Nanobubbles and Prenucleation Calcium Clusters during Ultrasonic Treatment of Hard Water. *ACS Omega*, 9(2), 2547-2558.

ORAL PRESENTATIONS

Nov 2025	Vienna Soft Matter Day, BOKU, Austria
Oct 2025	International Soft Matter Conference 2025, Greece
Sep 2025	Self-Organizing and Evolving Active Matter, MPI-PKS, Germany
Aug 2025	2 nd European Fluid Dynamics Conference, UCD, Ireland
Mar 2025	Charged Matter, ISTA, Austria
Mar 2025	APS Global Summit, CA, USA
Dec 2024	Southern Workshop on Granular Materials, Puerto Varas, Chile
Nov 2024	Vienna Soft Matter Day, TU Wien, Austria
Mar 2024	APS March Meeting, MN, USA
Nov 2023	Vienna Soft Matter Day, University of Vienna, Austria

SCIENCE EDUCATION

Sep 24-Nov 25	Member of the organising committee for the Young Scientist Symposium at ISTA, an interdisciplinary symposium organised by early career researchers
Oct 23-Jan 24	Teaching Assistant leading a small class of incoming graduate students, focuses on improving interdisciplinary communication and presentation skills
Oct 19-May 22	Private tutoring for second level students (ages 14-18) in mathematics, biology