

# Lorenzo Fant

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<b>EXPERIENCES</b>	<i>PONTE Fellow</i> , Instituto Gulbenian de Ciencia, Lisbon	2023-now
	Topics: Community metabolic scaling, Microbial functional ecology	
	<i>Post-Doc</i> , Universidad de Granada	2022
	Advisor: Miguel Angel Muñoz	
	Topic: Theoretical ecology, Statistical physics, Stochastic processes	
	<i>Full-time employee</i> , Shoreline, Trieste	2022
	Topic: Monitoring, conservation and restoration of marine ecosystems	
<b>EDUCATION</b>	<i>Ph.D in Physics</i> at SISSA & ICTP, Trieste	2017 - 2022
	Advisor: Jacopo Grilli	
	Thesis: Stochastic ecology and evolution in bacterial communities Honors: cum laude	
	<i>M.S. in Theoretical Physics</i> at Università di Trieste	2014 - 2016
	Final Grade: 110/110 cum laude	
	Thesis Advisor: Fabio Finocchi - INSP (Paris) Erasums at the ENS (Paris)	
	<i>B.S. in Physics</i> , Università degli Studi di Trento	2011 - 2014
	Final Grade: 110/110	
	Thesis Advisor: Pietro Faccioli	
<b>EVENTS ORGANIZED</b>	<i>IGC Symposium</i> , Biology across scales, Lisbon	2024
	<i>UGR Workshop</i> , Ecological Perturbations across scales, Granada	2023
<b>GRANTS, FELLOWSHIPS AND AWARDS</b>	<i>Symposium organization</i> , IGC, Lisbon – 10k€	2023
	<i>PONTE Fellowship</i> , IGC, Lisbon	2022
	<i>Post-Graduate Fellowship</i> , SISSA, Trieste	2017
	<i>Full Scholarship</i> , Collegio L.Fonda, Trieste – 11k€	2014 - 2016
	<i>Merit Prize</i> , Università degli studi di Trento – 3k€	2016
	<i>PAF, Physics Deepening Course</i> , Università degli Studi di Trento	2011 - 2014
<b>PUBLICATION LIST</b>	<i>Biomass competition unifies individual and community scaling patterns</i>	2024
	L. Fant, G. Ghedini BioArXiv:10.1101/2024.03.25.586593 (II revision at Nature Communications)	
	<i>Stable Cooperation Emerges in Stochastic multiplicative growth</i>	2023
	L. Fant, O. Mazzarisi, E. Panizon, J. Grilli Phys. Rev. E 108	
	<i>Eco-evolutionary dynamics lead to functionally robust</i>	2021

*and redundant communities*  
 L. Fant, I. Macocco, J. Grilli  
 BioArXiv:10.1101/2021.04.02.438173

*Variational Scheme to Compute Protein Reaction Pathways  
 Using Atomistic Force Fields with Explicit Solvent* 2015  
 S. a Beccara, L. Fant, and P. Faccioli  
 Phys. Rev. Lett. 114

*Entangling macroscopic diamonds at room temperature:  
 bounds on the CSL parameters* 2016  
 L. Fant et al.  
 Phys. Rev. A 94

**TALKS**

*Speaker @ Ecological Perturbations across scales, Granada* 2023  
 Title: Niche dispersal: an evolutionary phase transition

*Invited Speaker @ Ergodicity Economics, Lisbon* 2023  
 Title: The ergodicity economics perspective on cooperation

*Speaker @ Ergodicity Economics, Online* 2022  
 Title: Cooperation in Stochastic multiplicative-growth environments  
 is evolutionary stable

*Invited Seminar @ Max Plank Institute for Mathematics, Leipzig* 2021  
 Title: Cooperation in Stochastic multiplicative-growth environments  
 is evolutionary stable

*Speaker @ SMEEB, Venezia* 2021  
 Title: Eco-evolutionary dynamics lead to functionally robust  
 and redundant communities

*Poster @ QLIFE - Quantitative Ecological Genomics in the Tara Ocean* 2021  
 Title: Eco-evolutionary dynamics lead to functionally robust  
 and redundant communities

**JOURNAL  
 REFEREE**

*Physical Review Letters, Physical Review E*

**COMPUTER  
 SKILLS**

Languages: *Python, Julia* Advanced  
*SQL, C, Html* Intermediate

**LANGUAGE  
 SKILLS**

*Italian* Mother tongue  
*English* IELTS 7.5  
*Spanish, French* Intermediate

**EXTRA  
 CURRICULAR  
 ACTIVITIES**

*Students Representative* Academic Senate, SISSA 2018 - 2020  
 Department of Physics, Trento 2012 - 2014  
 Liceo G.B. Benedetti, Venezia 2010  
*WWF marine guide, AMP Miramare, Trieste* 2018 - 2022  
*Consultant Physicist, ERREQUATTRO s.r.l.* 2015

**LICENSES**

*Boating*, without limitations  
*Scuba Diving*, PADI Advanced

**REFERENCES**

*Giulia Ghedini*, IGC, Lisbon, Portugal – gghedini@igc.gulbenkian.pt  
*Jacopo Grilli*, ICTP, Trieste, Italy – jgrilli@ictp.it  
*Miguel Angel Muñoz*, UGR, Granada, Spain – mmunoz@onsager.ugr.es  
*Marco Cosentino Lagomarsino*, IFOM, Milan, Italy – marco.cosentino-lagomarsino@ifom.eu