

Erik HÖRMANN

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EDUCATION

DPHIL in [APPLIED] MATHEMATICS, University of Oxford	OCT 2020 - TODAY
Project: “Network optimization with statistical-mechanics algorithm”	
Supervisor: Prof. Renaud Lambiotte	
MSC in APPLIED MATHEMATICS, <i>La Sapienza</i> University of Rome	OCT 2018 - JUL 2020
Final grade: 110/110 <i>summa cum laude</i>	
Thesis: “Capacity of Hopfield networks: the Hebb rule and beyond”	
Supervisor: Dr. Elena Agliari	
Grade avg.: 29.91/30	
MSC in THEORETICAL PHYSICS, <i>La Sapienza</i> University of Rome	OCT 2016 - OCT 2018
Final grade: 110/110 <i>summa cum laude</i>	
Thesis: “The optical Spin Glass: a new model for glassy systems”	
Supervisor: Prof. Giancarlo Ruocco	
Grade avg.: 29.82/30	
BSC in PHYSICS, <i>La Sapienza</i> University of Rome	SEP 2013 - OCT 2016
Final grade: 110/110 <i>summa cum laude</i>	
Thesis: “Dyadic forms and neural networks”	
Supervisor: Prof. Giancarlo Ruocco	
Grade avg.: 28.42/30	
HIGH SCHOOL DIPLOMA, “B. Pinchetti” Institute	SEP 2008 - JUL 2013
Final grade: 100/100 <i>cum laude</i>	

WORK EXPERIENCE

Teaching Assistant at MATHEMATICAL INSTITUTE, UNIVERSITY OF OXFORD	OCT 2020 - TODAY
<ul style="list-style-type: none">taught a variety of courses in applied mathematics, including Networks and Statistical Mechanicssupported tutors in preparing lesson plans, achieving consistently positive evaluations from studentshighly international and multicultural environment, with students from more than 50 countries	
Research Intern at MAX PLANCK INSTITUTE FOR INTELLIGENT SYSTEMS	OCT 2019 - APR 2020
<ul style="list-style-type: none">developed mathematical models for intelligent multi-agent systems dynamics in high dimensionsapplied hyperbolic theory to automatic data cleaning and analysis on large datasetscollaborated in an international and highly interdisciplinary team	
Research Intern at ITALIAN INSTITUTE OF TECHNOLOGY (IIT)	MAR 2017 - SEP 2019
<ul style="list-style-type: none">devised and designed an optical computation device for optimization of complex systemsresponsible of programming and deploying of the <i>in silico</i> system used as reference benchmarkcontributed throughout the entire research agenda, from experiment design to data analysis and publication	
Editor, <i>JiAPS</i>	DEC 2018 - DEC 2019
<ul style="list-style-type: none">participated in the editorial decisions on article publication as member of the editorial boardmanaged the social media channels of the journal, achieving +50% yearly audience increase	
Summer Intern at ROSKILDE UNIVERSITY	JUL 2018 - SEP 2018
<ul style="list-style-type: none">implemented a scalable, high-performance algorithm for physical simulation on GPU clustersdeveloped expertise with large software projects, and with parallel, high-performance computing	
Undergraduate research intern at <i>LA SAPIENZA UNIVERSITY OF ROME</i>	MAR 2015 - JUL 2016
<ul style="list-style-type: none">programmed a high-performance Ising model simulation with multi-spin coding techniqueperformed a cross-correlation analysis of the DNA sequence of human chromosome 22	

OTHER RELEVANT EDUCATION

- Course of Technology Transfer, NATIONAL RESEARCH COUNSEL AUG 2019
- intensive course on the collaboration between research institutions and both the public/private sectors
- Global Studies: Economy, Politics and Culture, LAMARO POZZANI COLLEGE 2016 - 2018
- graduate-level course analyzing the challenges emerging from the recent world financial and migratory crisis
 - focus on the impacts on modern democratic institutions, and their possible solutions or mitigation

GRANTS AND AWARDS

JUN 2020	<i>Ermengildo Zegna</i> Founder's Scholarship (€5,000)
MAR 2020	Fulbright PhD Scholarship (up to \$40,000 - declined to attend DPhil at University of Oxford)
AUG 2019	International research grant, Dept. of Mathematics, <i>La Sapienza</i> University (€2,821)
2013 - 2018	Full residential scholarship, Lamaro Pozzani University College
SEP 2017	Grant for International Students, Sorgente Group Foundation (€3,000)

LANGUAGES

ITALIAN:	Mothertongue	—	
ENGLISH:	Full working proficiency	CEFR C2	Cambridge ESOL CPE
GERMAN:	Limited working proficiency	CEFR B1	Humboldt Universität C-test
MANDARIN:	Basic proficiency	CEFR A1	

IT SKILLS

	SCIENTIFIC PROGRAMMING	GENERAL PURPOSE
PROFICIENT:	C, MATLAB, L ^A T _E X	MS Office, Wordpress
INTERMEDIATE:	python, R, TensorFlow, bash, git	HTML/CSS, Apple [®] FCP, Adobe [®] CC
BASIC:	FORTRAN, C++	JavaScript, SQL

ACTIVITIES AND INTERESTS

Network Science, Applied Mathematics and Physics, Big Data and Business analytics
Digital content creation, photography
Chess and table games, science fiction and fantasy literature
Opera and classical music