

PERSONAL INFORMATION



Vincenzo de Toma

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Gender Male | Date of birth 9 July 1992 | Nationality Italian

CURRENT POSITION PhD Student (Physics)

I am at the first of a three-year doctoral program, working in the field of fluid dynamics, turbulence and oceanography, collaborating with Luca Biferale at University of Rome and Vincenzo Artale at Enea (research center in Frascati(RM, Italy))

RESEARCH INTERESTS

Nonlinear Phenomena	Nonlinear Waves and Solitons, Turbulence, Dynamical & Descriptive Physical Oceanography
Statistical Mechanics	Phase Transition and Critical Phenomena, Ising Model, Glasses, Jamming, Complex Systems
Computer Science	Rudiment of Machine Learning, Constraint Satisfaction Problems, Optimization
Field Theories	General Relativity, Quantum Electrodynamics, Standard Model

EDUCATION AND TRAINING

1st Nov 2018 - present **PhD in Physics**

Research Project	'Study of heat fluxes in the ocean - project falls into the european Copernicus C3S_511'
Supervisor	Luca Biferale (Tor Vergata)
External Supervisor	Vincenzo Artale (Enea)
University	Tor Vergata, Università di Roma, Italy

2015–2018 **Master Degree in Physics**

Thesis Title	'Study of bidimensional hard disks' configurations at jamming', Development of a C++ Simulation with GLPK
Advisor	Giorgio Parisi
University	La Sapienza, Università degli studi di Roma, Italy

2012–2015 **Bachelor of Science in Physics**

Thesis Title	'Two-Dimensional Ising model and Grassmann Variables', Compilative study of the solution of the 2-d Ising model
Advisor	Andrea Crisanti
University	La Sapienza, Università degli studi di Roma, Italy

2006-2011 **Diploma di Maturità Classica**

High School	Orazio, Liceo Classico Statale Roma, Italy
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PERSONAL SKILLS

Mother tongue Italian

Other languages	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C2	C1	C1	C1
Current having no proficiency certification					

Levels: A1 and A2: Basic user – B1 and B2: Independent user – C1 and C2: Proficient user
[Common European Framework of Reference for Languages](#)

Communication skills

- team work: I have worked in various types of teams from research teams at university to the team formed by my Dojo. Sometimes I supply my Sensei teaching aikido.
- mediating skills: I work both with childs, giving them lessons to help them making their homeworks, and also, in the Dojo, or in my Master Degree Thesis experience, with group of people older than me.
- simple-explanator: Once I master an argument, I can explain to "dummies", making everyday-life examples.

Self-Organisational skills

- I like to respect my deadlines: both the ones I gave myself, both the ones gave me from others.
- I'm a hard worker, with a passion for problems, like every good physicist should be.
- When I have to study a subject I like to search on every book I can to understand well and fast.

Digital competences

SELF-ASSESSMENT				
Information Processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Proficient user	Independent user	Independent user

[Digital competences - Self-assessment grid](#)

Computer skills

- can manage different browser and e-mail clients, like Mozilla Firefox, Safari, Chrome, Midori, Mozilla Thunderbird, Microsoft Outlook;
- competent with most Microsoft Office, LibreOffice, LaTeX;
- good knowledge of many editors: Emacs, Gedit, Kate, Leafpad, Notepad;
- experience with C, C++, Python;
- good knowledge of operating system as Microsoft Windows 10, MacOS, Linux (Fedora, Mint, OpenSuse, Ubuntu, Raspbian, Scientific Linux);
- good knowledge of software for interpolating and organise data: SciDavis, Origin, Gnuplot, Panoply;
- can treat large dataset format netCDF using Python;
- rough knowledge of MatLab, Octave;
- I can also change parts in a Desktop computer, or a Notebook;

DIY Skills I can make basic electrical circuits, connecting DC motors, making DAC, ADC, working with leds, RLC RC, LC circuits, and programming them with the Raspberry Pi 3, soldering wires, in general opening broken things and trying to fix them

Certifications European Computer Driver License - ECDL Base (I'm actually giving exams to take also the ECDL Full Standard)

Driving licence B

ADDITIONAL INFORMATION

Resulting as eligible in rankings for PhD at

- Università degli Studi di Roma 'Roma 3' XXXIV Cycle;
- Università degli Studi di Roma 'Tor Vergata' XXXIV Cycle;

Conferences, Workshop & Meetings (audience)

Disordered Serendipity: A Glassy Path to Discovery - *Giorgio Parisi 70's birthday conference*. Sapienza Università di Roma, Italy, 19-22 September 2018

C3S_511 Scientific Evaluation of the CDS ECVs - *ECMWF Annual Meeting* "Libreria Caffè TOMO" - via degli Etruschi 4, Roma, 21st - 23rd November 2018

Winter School in Physics and Mathematics of Turbulent Flows at Different Scales - *Les Houches School of Physics* "École de Physique Les Houches" - Les Houches, France, 24th February - 1st March 2019

ESA Consultation for a Regional Initiative over the Mediterranean ESA MED 2018 - *European Space Agency* ESA/ESRIN - Via Galileo Galilei snc, 00044, Frascati, Italy, 11-12th December, 2018

WOC 2019 - World Ocean Circulation user consultation meeting - *European Space Agency* ESA/ESRIN - Via Galileo Galilei snc, 00044, Frascati, Italy, 21-22th February, 2019

Workshop on Conservation Principles, Data and uncertainties in atmosphere ocean modeling - *Griebnitzsee Campus* Griebnitzsee Campus, Potsdam 2-4th April, 2019

Sentinel 3 Validation Team Meeting - *European Space Agency* ESA/ESRIN - Via Galileo Galilei snc, 00044, Frascati, Italy, 07-09th May, 2019

Introduction to Parallel Computing with MPI and OpenMP - *Cineca HPC courses* Cineca - Via dei Tizi 6, Rome, Italy, 27-29th May, 2019

Summer school on parallel computing - *Cineca HPC courses* Cineca - Via dei Tizi 6, Rome, Italy, 01-12th July, 2019

Contributor to a talk

Variability and stability of AMOC from recent ORAS5-ECMWF reanalysis - *THEMES 2019* Opening talk by Vincenzo Artale Università Ca' Foscari, Venice, 27-29th November