



Marco Marchetta

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EDUCATION

2020 – 2023

Master Degree in Theoretical Chemistry and Computational Modelling (TCCM)

Department of Chemical and Pharmaceutical science, University of Trieste

- European Master "Theoretical Chemistry and Computational Modelling"
- Final grade: 110/110 cum laude
- Thesis title: Accelerated variational optimization in quantum Monte Carlo for the study of weakly interacting systems
- Supervisor: C. Filippi (UT)
- Local supervisor: E. Coccia (UniTs)

2017 – 2020

Excellence School

Scuola Superiore di Catania (SSC)

- Excellence School, inspired to Scuola Normale Superiore of Pisa, it is the highest educational institution of the University of Catania. It is characterized by a selective admission: only ten positions per year for the scientific class.
- <https://ssc.unict.it/en/content/who-we-are>.
- The Scuola Superiore offers the opportunity to take part to integrative training, specialistic courses and involves students into an early contact with research. In particular I followed the course *Quanto Mechanical derivation techniques for the simulation of complex systems* (5 ECT's): introductory course to computational chemistry (DFT, Molecular Dynamics, Monte Carlo)

2017 – 2020

Bachelor degree in Chemistry

Department of Chemical Science, University of Catania

- Final grade: 110/110 cum Laude
- Thesis title: Study of graphene's physical-chemical properties through numerical methods based on Kinetic Monte Carlo.
- Supervisor: G.G.N. Angilella
- Co-supervisors: A. La Magna, I. Deretzis

2012 – 2017

Technical diploma

Istituto Tecnico e Tecnologico E. Majorana, Milazzo

- Final grade: 100/100
- 3rd place in: regional chemistry competition, Sicilia 2014, Italian Chemical Society
- 4th place in: regional chemistry competition, Sicilia 2016, Italian Chemical Society
- 16th place in: Gara Nazionale di Chimica per gli istituti tecnici, Prato 2016, MIUR (National chemistry competition for Technical Institutes organized by Italian minister of School)

INTERSHIPS EXPERIENCES

July 2020 – November 2020

Internship at Italian Research Council

50h at Istituto di Microelettronica e Microsistemi (Microelettronics and Microsistem Institute), Consiglio Nazionale delle Ricerche (Italian Research Council), Catania.

- The internship focused on the computational modelling of Graphene's growth by chemical vapour deposition.

May 2022 – October 2022

Internship at University of Twente

six months full time internship at University of Twente, Enschede, Netherlands.

- The internship, under the supervision of the professor C. Filippi, focused on the study weak interaction by quantum Monte Carlo technique.

WORK EXPERIENCES

November 2017 – April 2018

TEDxSSC Armonie

Member of the executive production team

Languages

Italian – mother tongue

English – good knowledge

Computer Skills

Good knowledge of GNU/Linux based OS acquired during university courses and Master internship;

Good knowledge of FORTRAN 90-95 acquired from programming classes and projects, strengthened during the master thesis period;

Good knowledge of: Gnuplot, GAMESS, CHAMP;

Good knowledge of: LaTeX, MS Office and LibreOffice;

Basic knowledge of Python (script, SciPy, Matplotlib) acquired preparing the *Computational Chemistry Programming Project* (6 ECT's);

Basic knowledge of Message Passing Interface (MPI) for parallel computing, acquired during my thesis period;

Basic knowledge of OpenAcc;

Entry level knowledge of Julia programming language.

Awards and Scholarships

- Study award a.a. 2019/2020 from University of Catania;
- Ermenegildo Zegna Founder's Scholarship;
- Erasmus European scholarship;

Schools

24th January - 4th February
2022

School for advanced sciences of Luchon: **Tutorials in Theoretical Chemistry** Aspet, France.

TCCM Winter Tutorial Computational Tools for Theoretical Chemistry 2022

Seminars attended

chains: Chemistry As Innovative Science (<https://nwochains.nl/>)

Other

Lead The Future: selected as mentee in the mentoring project *Lead The Future*