Matteo **Bruschi**
M.Sc. in Chemistry

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Lungadige Matteotti 14, 37126 Verona (VR), Italy
Born 26 July 1995, Negrar (VR), Italy

Experience

Present – 01 Jun 2020 | **Research Fellow** | Dipartimento di Scienze Chimiche, Università degli Studi di Padova, Padova, Italy
- Project: "Exciton Dynamics in Quantum Dots Solids for the Design of Logic Processing at the Nanoscale"
- Supervisor: Prof. Barbara Fresch
- Funding: COPAC (H2020 FETOPEN-1-2016-2017-766563)

31 Jul 2019 – 01 Mar 2019 | **Teaching Assistant** | Università degli Studi di Padova, Padova, Italy
- Courses: Organic Chemistry 1 and Analytical Chemistry 1

18 Dec 2018 – 20 Aug 2018 | **Erasmus+ Studies** | Department of Chemistry, NTNU, Trondheim, Norway
- Courses from Master's Degree Programme in Applied Theoretical Chemistry

17 Aug 2018 – 20 Jul 2018 | **Scholarship** | Institut de Química Computacional i Catàlisi, Universitat de Girona, Girona, Spain
- Project: "Bioinspired in Silico Oxidation of Organomonochalcogenides by H_2O_2"
- Supervisor: Prof. Marcel Swart
- Funding: HPC-EUROPA3 (H2020 INFRAIA-2016-1-730897)

Education

23 Apr 2020 – 02 Oct 2017 | **M.Sc. in Chemistry** | Dipartimento di Scienze Chimiche, Università degli Studi di Padova, Padova, Italy
- Thesis: "Stochastic Models of Disorder in Excitonic Systems: Localization, Decoherence and Optical Response"
- Supervisor: Prof. Barbara Fresch
- Final grade: **110/110 cum Laude**

Theoretical Chemistry | Exciton dynamics | Anderson localization | Haken-Strobl model

28 Sep 2017 – 29 Sep 2014 | **B.Sc. in Chemistry** | Dipartimento di Scienze Chimiche, Università degli Studi di Padova, Padova, Italy
- Thesis: "In Silico Oxidation of Bioinspired Organodichalcogenides of Glutathione Peroxidase: an ASA-EDA Approach"
- Supervisor: Prof. Laura Orian
- Final grade: **110/110**

Computational Chemistry | Catalysis | Chalcogens | GPx

Schools and Seminars

20 – 31 Jul 2020 **Summer School** – "Qiskit Global Summer School", IBM, Online Session
28 – 29 Apr 2020 **Training Course** – "High Performance Molecular Dynamics", CINECA, Online Session
26 – 29 Nov 2019 **Training Course** – "Introduction to Fortran for Scientific Computing", CINECA, Bologna, Italy
01 – 03 Oct 2019 **Training Course** – "Introduction to Python Programming", CINECA, Rome, Italy
15 – 17 Jul 2019 **Summer School** in History and Philosophy of Science – "Frontiere della Conoscenza: Big Data nelle Scienze Fisiche, Sociali, Umanistiche e della Vita", CISFIS, Padova, Italy

Voluntary Activities

27 Sep 2019 **Staff Member** – "European Researchers' Night - Venetonight", Padova, Italy
12 Feb 2019 **Speaker** – "Viaggio nella Tavola Periodica", Padova, Italy
29 Sep 2018 **Staff Member** – "European Researchers' Night - Venetonight", Padova, Italy
23 Sep 2017 **Staff Member** – "NEMEC - Non è magia, è chimica", Padova, Italy
19 Sep 2015 **Staff Member** – "NEMEC - Non è magia, è chimica", Padova, Italy

Skills

Operative Systems	Linux, MacOS, Windows
Programming	Python, Fortran 90, Bash
Scientific Software	Matlab, Mathematica
Chemistry Software	Gaussian, ADF, Avogadro
Text Editors	Office Suite, LaTeX

Languages

Italian	Native
English	Fluent

Publications

[1] M. Bortoli, M. Bruschi, M. Swart, L. Orian "Sequential Oxidations of Phenylchalcogenides by H_2O_2: Insights in the Redox Behavior of Selenium from a DFT Analysis" *New J. Chem.* **44**, 6724-6731 (2020).

[2] M. Bortoli, F. Zaccaria, M. Dalla Tiezza, M. Bruschi, C. Fonseca Guerra, F. M. Bickelhaupt, L. Orian "Oxidation of Organic Diselenides and Ditellurides by H_2O_2 for Bioinspired Catalyst Design" *Phys. Chem. Chem. Phys.* **20**, 20874-20885 (2018).