

# Curriculum Vitae

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**Mario BARBATTI**

Marseille, July 13, 2021

**Research field** Theoretical, computational chemistry applied to molecular photochemistry. Method development, software implementation, and investigations of nonadiabatic processes. Mixed quantum-classical dynamics simulations. Leading developer of the Newton-X program.

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## Professional Appointments

Since Sep 2015 Professor of Chemistry, Aix Marseille University, France  
Sep 2010 - Aug 2015 Group Leader, Max-Planck-Institut für Kohlenforschung, Mülheim, Germany  
Nov 2003 - Aug 2010 Senior scientist, Institute for Theoretical Chemistry, University of Vienna, Austria

**Honors and Awards**

- Senior member of the *Institut Universitaire de France*, 2021-2026
- ERC Advanced Grant, 2019-2024
- Chair of excellence A\*Midex, 2015-2019

## Education and Titles

2008 Habilitation for teaching Theoretical Chemistry, University of Vienna  
1997 - 2001 Doctor of Sciences (Physics). Institute of Physics, Federal University of Rio de Janeiro  
1995 - 1997 Master of Sciences (Physics). Institute of Physics, Federal University of Rio de Janeiro  
1991 - 1995 Bachelor of Sciences (Physics), Institute of Physics, Federal University of Rio de Janeiro

## Bibliographic Indicators

- Peer-reviewed papers: 159
- Book chapters: 8
- Citations: 8664 – H-index: 51
- ORCID: [orcid.org/0000-0001-9336-6607](https://orcid.org/0000-0001-9336-6607)
- Research ID: F-5647-2014
- Full publication list at [www.barbatti.org/publications](http://www.barbatti.org/publications)

## Selected Publications

- Barbatti, M. Simulation of Excitation by Sunlight in Mixed Quantum-Classical Dynamics. *J. Chem. Theory Comput.* **2020**, *16*, 4849-4856.
- Crespo-Otero, R.; Barbatti, M. Recent Advances and Perspectives on Nonadiabatic Mixed Quantum-Classical Dynamics. *Chem. Rev.* **2018**, *118*, 7026-7068.
- Dral, P. O.; Barbatti, M.; Thiel, W. Nonadiabatic Excited-State Dynamics with Machine Learning. *J. Phys. Chem. Lett.* **2018**, *9*, 5660-5663.
- Barbatti, M.; Ruckebauer, M.; Plasser, F.; Pittner, J.; Granucci, G.; Persico, M.; Lischka, H. Newton-X: a surface-hopping program for nonadiabatic molecular dynamics. *WIREs: Comp. Mol. Sci.* **2014**, *4*, 26-33.
- Barbatti, M. Photorelaxation Induced by Water-Chromophore Electron Transfer. *J. Am. Chem. Soc.* **2014**, *136*, 10246-10249.
- M. Barbatti, G. Granucci, M. Ruckebauer, F. Plasser, R. Crespo-Otero, J. Pittner, M. Persico, and H. Lischka, **NEWTON-X: a package for Newtonian dynamics close to the crossing seam** (2007-2020), [www.newtonx.org](http://www.newtonx.org)

## Software Development