# Marcello Sega — Curriculum vitae

## Personal Data


**Name** Marcello Sega
**Birth date** October 25, 1977
**Birth place** Bolzano, Italy

**Contact** m.sega@fz-juelich.de
Helmholtz-Institut Erlangen-Nürnberg
Fürther Straße 248,
90429 Nürnberg, Germany


**Languages** Italian (native), English (full professional proficiency), German (professional proficiency)

## Area of Research

**Theoretical and computational soft matter.**
The focus of my research is on complex fluids, with particular emphasis on fluid interfaces, and systems of biological interest, from the single molecule level to that of supramolecular aggregates. I develop and make intensive use of advanced simulation approaches, both at the atomistic and at the coarse-grained level.

## Current Position

2018–today : Group Leader, Helmholtz Institute Erlangen-Nürnberg
2015–today : Associate Editor, RSC Advances, Royal Society of Chemistry

## Professional Experience

2015–2018 : University Assistant, Computational Physics Group, University of Vienna
2013–2015 : Marie Curie Fellow, Dept. of Computational Biological Chemistry, University of Vienna
2012–2013 : Research Assistant, Physics Dept., University of Rome "Tor Vergata"
2010–2012 : Postodc, ICP, University of Stuttgart
2008–2010 : Research Assistant, Physics Dept., University of Trento
2006–2008 : Postdoc, FIAS, J.W. Goethe University, Frankfurt am Main
2005–2006 : Research Assistant, Physics Dept., University of Trento

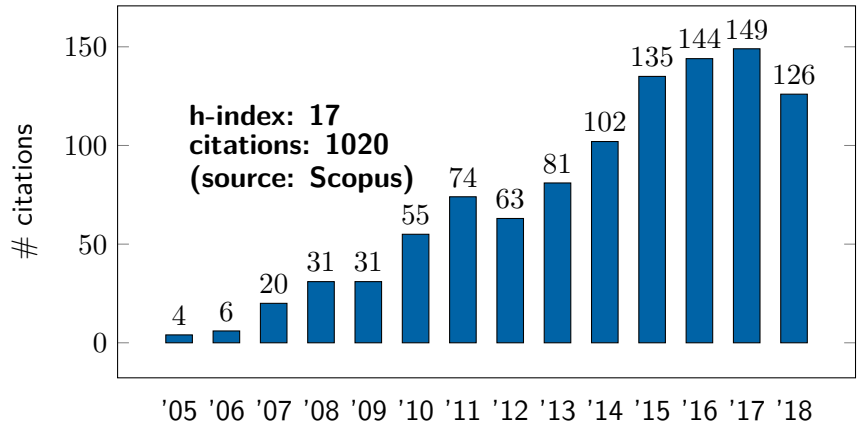
## Education

2017 : Habilitation – Computational Physics, University of Vienna (Austria),
"Simulation of Interfaces and Flows from the Nano to the Mesoscale"
2005 : Ph.D. – Physics, University of Trento (Italy),
"Structural and Dynamical Properties of a GM3 Bilayer Studied by Computer Simulation"
2001 : Laurea (Master equivalent) – Physics, University of Trento (Italy), 110/110 with distinction
"Study of the dynamical properties of polymers in solution by means of numerical simulation techniques."

## Major Funded Projects

2015 – 2018 : EU-H2020 ITN-ETN grant 642774 "COLLDENSE", PI of the project "Complex solutes at liquid-liquid interfaces", University of Vienna node.
Project Budget: 255.000 €, whole network: 3.895.000 €
2013 – 2015 : EU-FP7 Marie Curie IEF grant 331932 "SIDIS", "Simulation of Dielectric Spectra"
Budget: 248.000 €

## Publication Metrics




*Activity:* 2004 – today, 63 peer reviewed publications
*Scopus*: `https://www.scopus.com/authid/detail.uri?authorId=6701682678`
*Thomson Reuters*: `http://www.researcherid.com/rid/C-8863-2009`
*ORCID*: `http://orcid.org/0000-0002-0031-905X`

## 10 most cited publications

[1]P. Faccioli, M. Sega, F. Pederiva, and H. Orland, "Dominant pathways in protein folding", Phys. Rev. Lett. **97**, 108101 (2006).

[2]L. B. Pártay, P. Jedlovszky, M. Sega, L. B. Partay, P. Jedlovszky, and M. Sega, "Molecular aggregates in aqueous solutions of bile acid salts. Molecular dynamics simulation study", J. Phys. Chem. B **111**, 9886–9896 (2007).

[3]L. B. Partay, M. Sega, P. P. Jedlovszky, L. B. Pártay, M. Sega, and P. P. Jedlovszky, "Morphology of bile salt micelles as studied by computer simulation methods", Langmuir **23**, 12322–12328 (2007).

[4]M. Sega, P. Faccioli, F. Pederiva, G. Garberoglio, and H. Orland, "Quantitative protein dynamics from dominant folding pathways", Phys. Rev. Lett. **99**, 1–4 (2007).

[5]I. Semenov, S. Raafatnia, M. Sega, V. Lobaskin, C. Holm, and F. Kremer, "Electrophoretic mobility and charge inversion of a colloidal particle studied by single-colloid electrophoresis and molecular dynamics simulations", Phys. Rev. E **87**, 022302–7 (2013).

[6]E. Autieri, M. Sega, F. Pederiva, and G. Guella, "Puckering free energy of pyranoses: A NMR and metadynamics-umbrella sampling investigation", J. Chem. Phys. **133**, 095104 (2010).

[7]M. Sega, S. S. Kantorovich, P. Jedlovszky, and M. Jorge, "The generalized identification of truly interfacial molecules (ITIM) algorithm for nonplanar interfaces", J. Chem. Phys. **138**, 044110 (2013).

[8]M. Sega, R. Vallauri, and S. Melchionna, "Diffusion of water in confined geometry: The case of a multilamellar bilayer", Phys. Rev. E **72**, 3–6 (2005).

[9]E. Autieri, P. Faccioli, M. Sega, F. Pederiva, and H. Orland, "Dominant reaction pathways in high-dimensional systems", J. Chem. Phys. **130**, 064106 (2009).

[10]S. Tyagi, M. Süzen, M. Sega, M. Barbosa, S. S. Kantorovich, and C. Holm, "An iterative, fast, linear-scaling method for computing induced charges on arbitrary dielectric boundaries", J. Chem. Phys. **132**, 154112 (2010).