



# Dr. Michele Reticcioli

*Curriculum Vitae – August 6, 2021*

## Personal Details

Date of birth 1987, February 16th.  
Place of birth Rome (Italy).  
Citizenship Italian.

## Academy and Education

2019–present **University Assistant**, *University of Vienna (Austria)*.  
2019 **PostDoc**, *Technische Universität Wien, Vienna (Austria)*.  
2019 **Doctorate in physics**, *University of Vienna (Austria)*.  
2014 **Master degree in condensed matter physics**, *University of L'Aquila (Italy)*.  
2012 **Bachelor degree in physics**, *University of L'Aquila (Italy)*.

## Selected Publications

- 2021 **Electronic State Unfolding for Plane Waves: Energy Bands, Fermi Surfaces, and Spectral Functions**, D. Dirnberger, G. Kresse, C. Franchini, and M. Reticcioli, *The Journal of Physical Chemistry C* 23, 12921 [DOI:10.1021/acs.jpcc.1c02318]
- 2021 **Polarons in Materials**, C. Franchini, M. Reticcioli, M. Setvin, and U. Diebold, *Nature Reviews Materials* 6(7), 560–586 [DOI:10.1038/s41578-021-00289-w]
- 2019 **Small polarons in transition metal oxides**, M. Reticcioli, U. Diebold, G. Kresse and C. Franchini, Chapter in *Springer Handbook of Materials Modeling* [DOI:10.1007/978-3-319-50257-1\_52-1, arXiv:1902.04183v2]
- 2019 **Interplay between Adsorbates and Polarons: CO on Rutile TiO<sub>2</sub>(110)**, M. Reticcioli, I. Sokolović, M. Schmid, U. Diebold, M. Setvin and C. Franchini, *Physical Review Letters* (Editors' Suggestion) 122, 016805 [DOI:10.1103/PhysRevLett.122.016805, arXiv:1807.05859]
- 2018 **Polarity compensation mechanisms on the perovskite surface KTaO<sub>3</sub>(001)**, M. Setvin, M. Reticcioli, F. Poelzleitner, J. Hulva, M. Schmid, L. A. Boatner, C. Franchini and U. Diebold, *Science* 359, 6375, 572-575 [DOI:10.1126/science.aar2287]
- 2017 **Polaron-Driven Surface Reconstructions**, M. Reticcioli, M. Setvin, X. Hao, P. Flauger, G. Kresse, M. Schmid, U. Diebold and C. Franchini, *Physical Review X* 7, 031053 [DOI:10.1103/PhysRevX.7.031053]

Full list: available online at <https://homepage.univie.ac.at/michele.reticcioli>

Kolingasse 14–16/3.66 – 1090 Vienna, Austria

☎ +43 1427773314 • ✉ [michele.reticcioli@univie.ac.at](mailto:michele.reticcioli@univie.ac.at)

🏠 [homepage.univie.ac.at/michele.reticcioli](https://homepage.univie.ac.at/michele.reticcioli)

ResearcherID:V-1218-2018 • ORCID:0000-0001-8223-9928 • Publons:1573000

## Fellowships and fundings

- 2021 **Collaborator (Co-PI)** in Austrian Special Research Programme *TACO, TAming COMplexity in Materials Modeling* (FWF SFB).
- 2021 COST Action **Secondary Proposer**, *OPERA (European Network for Innovative and Advanced Epitaxy)*.
- 2020 **Principal Investigator** in international cooperation (Austria and Czech Republic), *Polarity for polarons* (OeAD mobility funding).
- 2020 Partner Collaborator in international cooperation (Austria and Republic of Korea), *Novel properties of correlated oxide surfaces*, (OeAD mobility funding).
- 2018 Doctorate Dissertation Completion fellowship (University of Vienna, Austria).
- 2014 Erasmus Internship fellowship (University of L'Aquila, Italy).

## Recognitions and awards

- 2021 Cover image on Nature Reviews Materials (July 2021).
- 2020 Elsevier Scripta and Acta Materialia **Outstanding Reviewer**.
- 2020 Publons Excellent Reviewer.
- 2020 Top-20 lecturer at University of Vienna, Faculty of Physics (*Roter Vektor Physik*).
- 2020 **Doc. Awards** for outstanding doctorates (City and University of Vienna).
- 2019 **Hans-Thirring Award** for outstanding doctoral thesis in Physics (University of Vienna).

## Conferences, Science dissemination and outreach

- 2015–present Participation in more than 25 workshops and conferences (4 invited talks, 1 chair).
- 2019–present Responsible for the outreach programme of the Computational Physics and Computational Materials Science departments (University of Vienna).
- 2015–present Outreach seminars for high-school students (*A Volte Ritornano*, Viterbo, Italy).
- 2010, 2014 Exhibitions promoting public awareness of Science (University of L'Aquila, Italy).

## Teaching activities

- 2019–present Lecturer at University of Vienna  
currently leading lecturer for *Surface Science*, *Lab. of Computational Quantum Mechanics*, and *Data Science for Physicists*, and co-lecturer in *Computational Concepts in Physics I*.
- 2016–present Supervisor of bachelor, master, doctorate and intern students (University of Vienna).
- 2015–2017 Assistant in practicum lectures (University of Vienna).
- 2010–2013 Undergraduate assistant at the Laboratory of Physics (University of L'Aquila, Italy).

## Additional skills

Languages **Italian** (mothertongue), **English** (fluent), **German** (B1.1), **French** (A2).

### Computer skills

- Programming Advanced knowledge: Fortran, bash, AWK,  $\LaTeX$ , HTML. Basic knowledge: C, Python, PHP.
- Sc. Software VASP (Vienna ab initio package), gnuplot, VESTA, p4vasp, VMD, LabVIEW, MATLAB, Jupyter.
- Others High performance computing, common software on Windows and Linux systems.