

# Curriculum Vitae Chiara Cardelli



## Personal information

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Nationality Italian  
Date and place of birth 15/12/1988 Prato, Italy

## Goals

My passion has always been to work for a positive impact on society, therefore I aim at using my scientific and organisational skills to empower people through projects in science for sustainable development, international cooperation, community-based research and innovation, citizen science, extracurricular education and science communication. I am particularly interested in climate change and environmental protection, renewable energy, water quality and water sanitation, alternative education and gender issues in STEM.

## Education and training

July 2018 **Doctorate in Physics**  
Computational Physics Group of the University of Vienna advisor Prof. Christoph Dellago, Vienna Doctoral School

April 2014 **Master Degree in Chemistry** (cum laude)  
Università degli Studi di Firenze, Firenze (Italy)

March 2011 **Bachelor Degree in Chemistry** (cum laude)  
Università degli Studi di Firenze, Firenze (Italy)

## Work Experience

### Main

February 2021-today Coordination of science communication and community management for the Ludwig Boltzmann Gesellschaft Open Innovation in Science Center, that focuses on participative research methods to involve and engage citizens and other stakeholders in research. Here I take care of communicating and reaching out to the public and of managing the network of stakeholders.

October 2018-January 2021 Coordination of science communication and scientific events of the research institute Institute for Quantum Optics and Quantum Information Vienna (IQOQI-Vienna) of the Austrian Academy of Sciences (ÖAW). This included writing press releases (in English), social media management, coordinating the Institute participation in all science communication events (e.g. Long Night of Research) and coordinating the organization of all public events and scientific conferences, broad problem solving and proactivity.

February 2020-today	Founder of the association I.N.S.Ide. - International Network for Sustainable Ideas, for science communication and education, connection between science and society, sustainable development and SDGs. We plan to work in two directions: on the one hand, to build a network connecting academia with the non-profit and private sectors; on the other hand, to support education, critical thinking and the improvement of learning outcomes, especially for marginalized or discriminated groups of people.
November 2018-February 2020	Scientific consulting and networking, concept developing, grant writing and platform testing for Science Map, an online scientific exchange knowledge platform
2015-today	Project manager in the NGO Sunshine4Palestine (sustainable development, solar energy, science education, water quality). Design, coordination and monitoring of the scientific education project "Science4People" in the West Bank (Palestine), that empowers female STEM students to coordinate a self-sustained science communication program in local schools.
October 2014-April 2018	Researcher in Computational Physics at the Computational Physics Group of the University of Vienna, funded by FWF.
<b>Projects</b>	
December 2020-today	Design and planning of the Citizen Science project CS-WatQ for water quality monitoring in Palestine (not funded yet).
March-May 2020	Ideas out of isolation: an Italian web platform to collect reflections that the particular experience of the COVID-19 pandemic suggests us from human, social, economic and political points of view.
February-August 2018	Design and coordination with Sunshine4Palestine and the European Physical Society of the project "Bethlehem Science Fair - a crossroad for development", including a science fair, university workshops and a training for building solar lamps in refugee camps.
April 2018	Creation and coordination with the UNESCO center ICTP Trieste of a 2-weeks training on 3D printing for Palestinian female STEM students.
January 2018	Design and planning with the research cluster "Waternet" (University of Rome3) of the international cooperation project „Smart Technologies for End users Participation in maximizing water efficiency in MED countries“ on water quality monitoring and education in Palestine (not funded yet).
2015-2016	Founder of the association "Ann Noether network" - for empowering women* in STEM.
2008-2014	Student representative in several university councils. Political campaigning, activism, communication and event organisation in the student union "Studenti di Sinistra".
<b>Organised workshops</b>	
April 2019-today	Rethinking Academia: a series of events (e.g., discussions, talks) to raise awareness and sparkle discussions between policy makers and academics about the current structural controversies emerged within academia.
August 2018	Creation of a 2-days science communication workshop for university students at the University of Bethlehem, Palestine.
July 2018	Creation of the hands-on science communication workshop for children „Energy and matter“, within the Kinderuni (Children University) of the University of Vienna.

April 2018	Creation of the hands-on science education exposition „What is in my water?“ on water quality and water treatment for the Lange Nacht der Forschung (long night of research) of Vienna.
April 2018	Co-creation of a 2-days hands-on workshop for children on natural inspired materials „Nature matters“, at the Edinburgh International Science Festival.
January-March 2018	Organisation of the workshop „Der Tanz der Partikel“ (The dance of particles) for young scholars with migration background at UniClub (University of Vienna) and for young women for “Frauen in der Technik (FIT)”.
March 2017	Co-organiser of the symposium on science philosophy and society “Shut up and Contemplate” -, recognised by the City of Vienna among the “distinguished successful events 2017 in Vienna”.
July 2015	Promoter and organiser of the 3 days workshop “Python workshop for women*” a programming workshop to empower women in science with programming skills
2010-2014	Promoter and organiser of 7 political and scientific dissemination workshops and conferences at the University of Florence such as “Bio-Impact: an Analysis on the Difficult Relation between Human and Nature” (2013).
<b>Prizes</b>	<p>2<sup>rd</sup> place for best scientific animation storyboard for "Communicating science to non-experts in animations" (Alop, Vienna Doctoral School, July 2018).</p> <p>3<sup>rd</sup> place for best science communication picture in the competition "My research in one picture" (WTZO, University of Vienna, July 2018), published in <u>Falter's Eureka</u></p> <p>Top rated by public and community voting in the FQXi Essay Contest 2018 with “Demolishing prejudices to get to the foundations” (Flavio del Santo, Chiara Cardelli).</p> <p>Winner of 2016 Young Investigator Training Program prize (European Colloids and Interface Society ECIS).</p>
<b>Publications</b>	<p>General Methodology to Identify the Minimum Alphabet Size for Heteropolymer Design, <i>Advanced Theory and Simulations</i> (2019)</p> <p>Heteropolymer Design and Folding of Arbitrary Topologies Reveals an Unexpected Role of Alphabet Size on the Knot Population, <i>Macromolecules</i> (2018)</p> <p>The role of directional interactions in the designability of generalized heteropolymers, <i>Scientific Reports</i> (2017)</p> <p>Lipid tempering simulation of model biological membranes on parallel platforms, <i>Biochimica et Biophysica Acta – Biomembranes</i> (2018)</p> <p>Identification of Protein Functional Regions, <i>ChemPhysChem</i> (2020)</p> <p>Demolishing Prejudices to Get to the Foundations: A Criterion of Demarcation for Fundamentality, <i>Foundations of Science</i> (2020)</p> <p>Protein design under competing conditions for the availability of amino acids, <i>Scientific Reports</i> (2020)</p> <p>Design of Protein-Protein Binding Sites Suggests a Rationale for Naturally Occurring Contact Areas, <i>Journal of Chemical Theory and Computation</i> (2018)</p>

Embodied simulations of physical phenomena, *ACM International Conference Proceeding Series* (2018)

Fast switching alchemical transformations in molecular dynamics simulations, *Journal of Chemical Theory and Computation* (2014)

### **Public speaking**

Excellent confidence in public speaking and presentations preparation.

2014-2018 9 research talks in English in 9 different international scientific conferences.

2008-2014 Presentation and chairing in several university cultural events and conferences.

### **Extracurricular education**

December 2017-April 2018 Workshop "Communication Hub - Design your interactive science communication project" (Science Center Netzwerk).

November 2017-April 2018 Workshop "Communication Hub - My research as video" (Science Center Netzwerk) resulting in writing the script and acting in the science video "[From Nature to Bionic Proteins through Computer Simulations](#)", broadcasted by OKTO TV.

November 2017 Workshop "Creating societal impact through research" (Science Center Netzwerk).

June 2017 Workshop "Interactive Science Communication" (Science Center Netzwerk).

June 2017 Workshop "Presenting with impact" (Marie Curie Alumni association).

March 2017 Workshop "Story telling in science" (Science Center Netzwerk).

### **Languages**

Italian (native), English C1 (several years of working experience in English), German B2

### **Computer skills and competences**

Unix and Windows OS, coding (c language, awk, shell, valgrind, gdb), work organisers (git, Slack, Trello), writing and slides (Latex, Emacs, OpenOffice), graphic (Inkscape, Gimp, Gnuplot, Qtiplot, xmgrace, Origin), remote working (Unix based clusters, HPC, ssh).

### **Soft skills and competences**

Very good competences in problem solving and team work. Excellent skills in public speaking and event planning. Strong aptitude to travel and to dialogue with other realities.

### **Hobbies**

Travelling, outreach, dancing, reading, hiking, diving.