



# Rafael Tiedra

*Mathematical physicist with various years of experience in research, IT, education and administration.*

Date of birth 05.03.1976  
Nationality Swiss and Spanish  
Languages French (native), English and Spanish (fluent)

## Skills

### Research and teaching

Problem solving, research in physics and mathematics (44 scientific publications)  
Scientific presentation/vulgarization (125 talks)  
Classroom and online teaching

### Academic and corporate administration

Management, budgets, fundraising, organisation of events and conferences  
Writing and editing publications, popular science, translation, digital communication  
Recruitment process, conception of curriculums, project management

## Programming

**Languages/skills:** Python, SQL, Machine Learning, Jupyter, Git, VSCode, MATLAB, HTML, LaTeX  
**IT:** MS Office, Linux, Windows OS

## Professional experiences

2022-present **Data Scientist**, Department of Data Science and Artificial Intelligence, Geneva State, Switzerland.  
2021-2022 **Visiting professor**, Swiss Federal Institute of Technology Lausanne, Switzerland.  
2009-2022 **Professor**, Pontifical Catholic University, Chile.  
2005-2009 **Postdoctoral researcher**, Universities of Paris-Sud and Cergy-Pontoise, France.

## Studies

June 2005 **PhD in Physics**, University of Geneva.  
October 2001 **BSc in Mathematics**, University of Geneva.  
July 2001 **MSc in Physics**, University of Geneva.

## Prizes and research grants

2009, 2013, 2017, 2021 Chilean Fondecyt grants (501'000 USD)  
2009, 2014 Chilean Milenio grants (2'338'000 USD)  
2011 French-Chilean ECOS-CONICYT grant  
2005, 2007 Swiss NSF grants (138'000 USD)  
2001 Fanny Wurth scholarship  
2001 Hans Wilsdorf scholarship (Rolex)  
1998, 1999, 2000, 2001 Canton of Geneva scholarships

## Interests and hobbies

Science, jazz, finance, badminton