

Curriculum vitae Michele Parrinello



Computational Science
Department of Chemistry and Applied Biosciences, ETH Zurich
USI Campus

Personal information

Date of birth: 7 September 1945
Place of birth: Messina, Italy
Nationality: Italian
Marital status: Married, with one child

Education

Italian *Laurea* in physics, University of Bologna, 1968

Professional experience

Professor in Computational Sciences, ETH, Zurich, Switzerland (2001-present)
Director, Swiss Center for Scientific Computing (CSCS), Manno, Switzerland (2001-2003)
Director, Max-Planck-Institut für Festkörperforschung, Stuttgart, Germany, 1994-2001
Manager, IBM Research Laboratory, Zurich, Switzerland, 1991-1994
Research Staff Member, IBM Research Laboratory, Zurich, 1989-1991
Summer Visitor, IBM Research Laboratory, Zurich, 1987
Full Professor, International School for Advanced Studies (SISSA), Trieste, Italy, 1986-1989
Summer Visitor, University of Minnesota, Minneapolis, USA, 1986
Summer Visitor, IBM Research Laboratory, Yorktown, USA, 1985
Associate Professor, University of Trieste, 1982-1986
Visiting Scientist, Argonne National Laboratory, Chicago, USA, 1980-1981
Lecturer, University of Trieste, Italy, 1976-1982
Visiting Scientist, Imperial College, London, England, 1975-1976
Lecturer, University of Messina, Italy, 1972-1977
Borsista del Consiglio Nazionale delle Ricerche, University of Messina, Italy, 1970-1971

Awards

Hewlett-Packard Europhysics Prize (with R. Car), European Physical Society (1990)
Fellow, American Physical Society (1991)
Socio corrispondente, *Accademia dei Pericolanti* (1992)
Boys-Rahman Prize, Royal Society of Chemistry, UK (1994)
Rahman Prize (with R. Car), American Physical Society (1995)
Honorary professor, University of Stuttgart, Germany (1995)
Award in Theoretical Chemistry, American Chemical Society (2001)
Honorary Doctorate in Chemistry, University of Messina, Italy (2003)
Schroedinger Medal of the World Association of Theoretically Oriented Chemists (2005)
Fellow, World Association of Theoretically Oriented Chemists (WATOC) (2005)

Named lectures

Eli Burstein Lecturer in Materials Science, University of Pennsylvania, USA (1993)
Gilbert Newton Lewis Lecturer, University of California, Berkeley, USA (2001)
DuPont-Marshall Lecturer, University of Pennsylvania, Philadelphia, USA (2001)
Lise Meitner Lecturer, Lise Meitner-Minerva Center for Computational Quantum Chemistry, Jerusalem, Israel (2001/2002)
Celsius Lecturer, Uppsala University, Sweden (2002)
Falk-Plaut Lecturer, Columbia University, New York, USA (2002)
Jean Perrin Lecturer, Chemical Physics Division, Physical and Chemical Societies, France (2003)

Academy and learned society memberships

Member, International Academy of Quantum Molecular Science (1995)
Honorary Member of the Materials Research Society of India (1999)
Member, Berlin-Brandenburgische Akademie der Wissenschaften (2000)
External Scientific Member, Max Planck Society (2001)
Foreign Member of the Royal Society, UK (2004)
Member, European Academy of Sciences (2004)

Society memberships

American Physical Society
American Chemical Society
Institute of Physics
Swiss Chemical Society

Research interests

Computer simulations and modelling of condensed matter, chemical and biophysical systems:
Ab-initio molecular dynamics
Disordered systems and clusters
Structural and chemical transformations in solids under the effect of pressure
Water and hydrogen bonded systems
Quantum effects in solids, liquids and clusters
Chemical reactions in condensed phases
Biochemical processes

Publications

Over 350 research papers, review articles and edited books. His work has been cited more than 16,500 times, which makes him one of the most cited authors in physics and chemistry in the world. In particular, the first paper with Roberto Car is *Physical Review Letters*' 5th most cited paper of all time.

Advisory activities

Joint Research Center for Atom Technology, Tsukuba, Japan
Istituto Nazionale di Fisica della Materia, Genoa, Italy
Steacie Institute for Molecular Sciences, Ottawa, Canada
Applications Scientifiques du Calcul Intensif, CNRS, Paris, France
International School for Advanced Studies (SISSA), Trieste, Italy
Fondazione Silvio Tronchetti Provera, Milan, Italy
Swiss National Supercomputing Centre (CSCS), Manno, Italy
International Centre for Science and High Technology (ICS), Trieste, Italy
Italian Ministry for Public Education, Rome, Italy

Editorial activities

Has been or is a member of the editorial advisory board of:

Chemical Physics
Chemical Physics Letters
ChemPhysChem
Computational Materials Science
Computing in Science and Engineering
Journal of Computer-Aided Materials Design
Journal of Physics
Science
Theoretical Chemistry Accounts

Refereeing

Proposals from Austria, Canada, Germany, Italy, Netherlands, Switzerland, United Kingdom, United States.

Scientific articles from *Europhysics Letters*, *Journal of Chemical Physics*, *Journal of Physical Chemistry*, *Journal of the American Chemical Society*, *Molecular Physics*, *Nature*, *Physical Review*, *Physical Review Letters*, *Science*, and many others.

Lectures

Several hundred seminars and colloquia delivered throughout the world at major universities, research and industrial laboratories and professional meetings.