

Brief CV (February 2023)

Gustavo E. Scuseria

Robert A. Welch Professor of Chemistry
Professor of Physics & Astronomy
Professor of Materials Science & NanoEngineering
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Professional Preparation

University of Buenos Aires, Physics, M.S., 1979
University of Buenos Aires, Physics, Ph.D., 1983
University of California Berkeley, Chemistry, Postdoctoral Researcher, 1985-1987
University of Georgia, Chemistry, Postdoctoral Researcher, 1987-1989

Appointments

1989-1993, Assistant Professor, Department of Chemistry, Rice University
1993-1995, Associate Professor, Department of Chemistry, Rice University
1995-2000, Professor, Department of Chemistry, Rice University
2000 Robert A. Welch Professor of Chemistry, Rice University
2009 Professor of Physics and Astronomy, Rice University
2013 Professor of Materials Science and NanoEngineering, Rice University

Honors

2022 ACS Award in Theoretical Chemistry
2022 Honorary Member, Centro Argentino de Ingenieros, Argentina
2021 Corresponding Investigator, CONICET, Argentina
2018 Highly Cited Researcher (Cross-Field) Clarivate Analytics
2018 Pitzer Lecture, Ohio State University
2018 Peter Pulay Lecture, University of Arkansas
2017 S F Boys – A Rahman Award of the Royal Society of Chemistry
2015-2017 Web of Science Highly Cited Researcher
2016 Distinguished Israel Pollak Lecturer, Technion – Israel Institute of Technology
2015 Humboldt Research Award (Forschungspreis der A. von Humboldt-Stiftung)
2015 Lise Meitner Minerva Lectureship Award, Tel Aviv University
2015 MARVEL Distinguished Lecture, EPFL, Lausanne
2014 Moses Gomberg Lecture, University of Michigan, Ann Arbor
2013 John L. Margrave Memorial Lecture, Rice University
2012 Eolo Scrocco Colloquium, Scuola Normale Superiore, Universita di Pisa
2010 CUSO Lecture Series (Geneva, Lausanne, Bern, Fribourg)
2010 Feynman Prize in Nanotechnology Theory
2010 Fellow of the American Chemical Society
2009 Member of the International Academy of Quantum Molecular Science
2009 Fellow of the Royal Society of Chemistry
2006 Thomson-Reuters ISI Highly Cited Researcher
2003 John Simon Guggenheim Fellow

2002 Fellow of the American Physical Society
2002 Creativity Extension Award, National Science Foundation
1999 Fellow of the American Association for the Advancement of Science
1999 Robert S. Mulliken Lecture, University of Georgia
1998 IBM Partnership Award
1992 Camille and Henry Dreyfus Teacher-Scholar
1992 Oak Ridge Associated Universities Junior Faculty Award

Publications & Invited Lectures

515+ publications (**complete list at <http://scuseria.rice.edu>**)
410+ invited lectures at international conferences and scientific institutions worldwide

Citation Record – Web of Science : h-index = 119, total citations 93k +
– **Google Scholar:** total citations 191k +
– 11 papers with 2,000+ citations each
– 15 papers with 1,000+ citations each

Other Recent Professional Activities

2006-2021: Editor-in-Chief of *Journal of Chemical Theory and Computation* (ACS).
2014-2022: Scientific Advisory Board, Many Electrons Initiative, Simons Foundation.
2015-2022: Scientific Advisory Board, Max-Planck Institute for Solid State Research.
2012-2018: Vice President International Academy of Quantum Molecular Science.
Past & Present Editorial Advisory Boards: *TCA, JCP, IJQC, Wiley Interdisc. Science*
Invited Editor for special issues of peer-reviewed journals and books.
Conference organizer for ACS, APS, CECAM, ECS, IMA, Oberwolfach, TSRC.
Referee for government and private funding agencies in the US and other countries.
Participant on numerous DOE and NSF panels.
2008-2013: Vice Chair, Chemistry Department, Rice University.

Current Research Funding: NSF-CHE, DOE-CTC, DOE-QIS, The Welch Foundation, Gaussian Inc.

55 Graduate Students, 49 Postdoctoral Members, 21 Undergraduate Researchers, 40 Summer Students, 25 Research Visitors (past & present)

Major Research Areas (past & present)

Novel methods in electronic structure theory of molecules and solids. Strong correlation. Coupled Cluster Theory. Symmetry breaking and restoration. Projected quasiparticle theory. Projected Hartree-Fock theory. Exchange-correlation functionals in density functional theory. Range-separated approaches. Screened hybrid HSE. Local hybrids and local range separation. Gaussian-orbital based electronic structure methods with periodic boundary conditions. Linear scaling electronic structure methods. Applications to molecules and materials of importance for energy & the environment including fullerenes, carbon nanotubes, graphene nanoribbons, and other carbon nanostructures; band gaps of materials; actinide oxides; metal oxides.