

Brief CV (January 2025)

Gustavo E. Scuseria

Robert A. Welch Professor of Chemistry
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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

Academic 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

2024 Gustavo Scuseria Festschrift, The Journal of Physical Chemistry, American Chemical Society
2024 MRS Theory Award, Materials Research Society
2024 WATOC Schrödinger Medal, World Association of Theoretical and Computational Chemists
2024 Aneesur Rahman Prize for Computational Physics, American Physical Society
2024 Xingda Lectureship, College of Chemistry, Peking University
2023 Ede Kapuy Memorial Lecture, Eötvös Loránd University, Budapest
2022 Molecular Quantum Mechanics Scientific Honoree, <https://www.mqm2022.org/>
2022 ACS National Award in Theoretical Chemistry, American Chemical Society
2022 Honorary Member, Centro Argentino de Ingenieros, Argentina
2018 Highly Cited Researcher (Cross-Field) Clarivate Analytics
2018 Pitzer Lecture, Ohio State University
2018 Peter Pulay Lecture, University of Arkansas
2017 Boys – Rahman Award, 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, Università 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 ORAU Junior Faculty Award, Oak Ridge Associated Universities

Publications & Invited Lectures

531+ publications (complete list at <http://scuseria.rice.edu>)

420+ invited lectures at international conferences and scientific institutions worldwide

Citation Record – Web of Science: h-index = **123**, total citations **111K+**

– **Google Scholar:** total citations **258K+** (including software citations)

<https://scholar.google.com/citations?user=6ZiRSwQAAAAJ&hl=en>

2 papers with **10,000+** citations

7 papers with **5,000+** citations

20 papers with **1,000+** citations

Professional Activities

2023-2026: President, International Academy of Quantum Molecular Science.

2006-2021: Co-editor-in-chief, *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.

2008-2013: Vice Chair, Chemistry Department, Rice University.

Gaussian Inc. Collaborator and Consultant since 1993.

Editorial Advisory Boards: *TCA*, *JCP*, *IJQC*, *JCTC*

Invited Editor for special issues of peer-reviewed journals and books.

Conference organizer for ACS, APS, CECAM, ECS, IMA, Oberwolfach, and TSRC.

Referee for funding agencies in the US and other countries.

Participant on numerous DOE and NSF panels.

Current Research Funding: NSF, DOE, The Welch Foundation, Gaussian Inc.

58 Graduate Students, 50 Postdoctoral Associates, 22 Undergraduate Researchers, 40 Summer Students, 26 Research & Sabbatical Visitors (past & present)

Major Research Areas (past & present)

Novel methods in electronic structure theory for molecules and materials. Coupled Cluster theory. Density Functional Theory. Screened hybrid HSE, local hybrids, and local range separation. Gaussian-orbital-based electronic structure methods with periodic boundary conditions. Linear scaling electronic structure methods. Symmetry breaking and restoration. Projected mean-field theory. Applications to molecules and materials including fullerenes, carbon nanotubes, graphene nanoribbons, and other carbon nanostructures; band gaps of materials; actinide oxides; metal oxides. Strong correlation. Exploiting Dualities.