



Yuan Ping FENG

Emeritus Professor
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Academic Qualification

B.Sc. in Physics, Lanzhou University, 1982
Ph.D. in Physics, Illinois Institute of Technology, 1987

Research Interests

Yuan Ping Feng has been a faculty member of Department of Physics at the National University of Singapore (NUS) since 1990. He joined NUS following a 3 year postdoctoral stint at Purdue University. His research interest is in computational condensed matter & materials physics, focusing mainly on the understanding of fundamental properties of materials for advanced technologies, and prediction of new materials based on *ab initio* electronic structure calculations and materials genomic approach. Over the years, his group has studied various materials including structures, properties and applications of two-dimensional materials, dilute magnetic semiconductors, graphene spintronics, topological insulators, high-k materials, semiconductor and metal surfaces and interfaces, materials for magnetic data storage, etc. He has an established track record in collaboration with experimentalists. He has authored/co-authored over 630 scientific papers in international refereed journals and one book.

Selected Publications

“Atomic-orbital-free intrinsic ferromagnetism in electrenes”, Jun Zhou, Yuan Ping Feng and Lei Shen, *Physical Review B* **102** (18), 180407R (2020).

“2DMatPedia, an open computational database of two-dimensional materials from top-down and bottom-up approaches”, J Zhou, L Shen, M D Costa, K A Persson, S P Ong, P Huck, Y Lu, X Y Ma, Y M Chen, H M Tang & Y P Feng, *Scientific Data*, **6**, 86 (2019). DOI: 10.1038/s41597-019-0097-3.

“Pressure induced topological phase transition in layered Bi_2S_3 ”, M Yang, Y Z Luo, M G Zeng, L Shen, Y H Lu, J Zhou, S J Wang, I K Sou, and Y P Feng, *Phys. Chem. Chem. Phys.*, **19**, 29372 (2017).

“Simultaneous Magnetic and Charge Doping of Topological Insulators with Carbon”, L Shen, M G Zeng, Y H Lu, M Yang, and Y P Feng, *Physical Review Letters* **111** (23), 236803 (2013).

“Graphene-based spin logic gates”, M G Zeng, L Shen, H B Su, C Zhang, and Y P Feng, *Applied Physics Letters*, **98** (9), 092110 (2011).

“Room-temperature ferromagnetism in carbon-doped ZnO”, H Pan, J Yi, L Shen, R Wu, J H Yang, J Y Lin, Y P Feng, J Ding, L H Van and J H Yin, *Physical Review Letters*, **99** (12), 127201 (2007).

Full list of publication: <https://scholar.google.com/citations?hl=en&user=1ciOTHQAAAAJ>

Present and Past Appointments

Head (Apr 08 – Jun 2014), Acting Head (Apr 07 – Mar 08) & Deputy Head (Feb 2005 – Mar 07)
Department of Physics, National University of Singapore

Visiting Professor (Since Dec 2010, *no ending date, but no longer active*)
Department of Materials Science and Engineering, Zhejiang University, China

Adjunct Professor (Since Dec 2014, *no ending date, but no longer active*)
School of Mathematics and Physics, University of Science and Technology Beijing, China

Adjunct professor (July 2004 – July 2006, June 2008 – June 2011)
College of Physics and Technical Physics, Lanzhou University, China

Supervisor
Graduate School for Integrative Sciences and Engineering, NUS

Adjunct Scientist (July 2003 – March 2017)
Institute of Materials Research and Engineering (Singapore)

Adjunct Professor, (August 2002 – March 2013)
Institute of High Performance Computing (Singapore)

Advisor (July 2003 – June 2007)
International Relation Office, National University of Singapore

Vice-Dean (July 1999 – June 2000)
Faculty of Science, National University of Singapore

Director (December 1998 – June 2001)

Centre for Information Technology and its Applications
Faculty of Science, National University of Singapore

Awards/Honours

Academician, Asia Pacific Academy of Materials (since 2013)
Fellow, American Physical Society (since 2012)
Fellow, Institute of Physics, Singapore (since 2007)
Institute of Physics Singapore President's Medal (2017)
C N Yang Award in Science and Technology for New Immigrant (Singapore) – An Outstanding Contribution Award by Huayuan Association 2013
Outstanding Ph.D Advisor Award (2023), Faculty of Science, NUS
NUS Excellent Teacher Award AY 2003/2004
Faculty of Science Teaching Honour Roll AY2006/2007
Faculty of Science Teaching Excellence Award (AY2000/01, AY2003/04, AY2004/05, AY2005/06)
Faculty of Science Teaching Award (Physics), 1992

Career History

July 2023 – present, Emeritus Professor
January 2007 – June 2023, Professor
August 1998 – December 2006, Associate Professor
July 1994 – July 1998, Senior Lecturer
July 1990 – June 1994, Lecturer
Department of Physics, National University of Singapore

Sept. 1987 – June 1990
Postdoctoral Research Associate, Purdue University

August 1986 – May 1987
Part-time Instructor, Chicago State University

August 1982 – August 1987
Teaching Assistant, Illinois Institute of Technology

Professional Activities

Second Vice President (Jan 2019 – Dec 2023), Secretary (Jan 2013 – Dec 2018)
International Union of Materials Research Societies (IUMRS)

Member of IUPAP Commission on Computational Physics (C20) (2017 – 2021)

Vice President (2013 - 2023) & Member of Management Committee (2002 – 2003, 2006 – 2023)
Materials Research Society of Singapore (MRS-S)

Council Member (1992 – 1997, 1999 – 2007)
The Institute of Physics, Singapore

Member (2006 – 30 June 2008, 2011 –)
Materials Research Society (USA)

Editor-in-Chief (2011 – Present)
International Journal of Computational Materials Science & Engineering (IJCMSE)

Editor (2013 – Present)
Scientific Data

Editor (2007 – March 2025)
Materials Transaction

Editor (2015 – Present)
Progress in Natural Science: Materials International

Member of Editorial Board (2007 – 2015)
Research Letters in Physics / Physics Research International

Editor-in-chief (1994 – 1997) and member of the editorial board (1995-) of the Singapore Journal of Physics, a research journal published by the Institute of Physics, Singapore

Consultation (May 2003 – April 2004)
Insight-Etude