CURRICULUM VITAE

Prof. Xun-Li WANG （王循理）

B.S. – Peking University

Ph.D. – Iowa State University

Chair Professor of Physics &

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In August 2012, Professor Xun-Li Wang joined City University of Hong Kong as a Chair Professor and Head of the Department of Physics and Materials Science. In July 2017, the department split, and Professor Wang became the founding head of the new Department of Physics. He oversaw a rapid expansion of the new department – the faculty body grew from 12 at the beginning to presently 27+ strong. In the latest Research Assessment Exercise (RAE2020), commissioned by Hong Kong's University Grants Council, the Department of Physics performed well amongst a very competitive group in Hong Kong. An independent international panel rated 38% of the department's research output as four-star (i.e., "world-leading") and 52% as three-star (i.e., "internationally excellent"). In 2022-2023, he served as Executive Director of Hong Kong Institute for Advanced Study (HKIAS). Following the lift of COVID-19 related travel restrictions in Hong Kong, he quickly revitalized the academic life of HKIAS, through the appointments of distinguished visiting scholars and a host of high-level conferences and lectures.

Prior to coming to Hong Kong, he worked at Oak Ridge National Laboratory in the US, rising through the ranks to Distinguished Staff Member. He was responsible for the design, construction, and commissioning of VULCAN, a powerful engineering diffractometer at the Spallation Neutron Source, Oak Ridge National Laboratory. As a senior scientist in the Neutron Science Directorate, he led innovative research, using neutron scattering as a primary tool, to understand deformation and phase transformation behavior in complex materials.

Since joining City University of Hong Kong, Professor Wang has been committed to establishing Hong Kong as an international hub for neutron scattering research. With the support from The Croucher Foundation, he initiated the biennial Croucher Summer Course on Neutron Scattering. He was also instrumental in launching the Gordon Research Conference series on Neutron Scattering, serving as the inaugural Chair in 2015. In addition, he and Professor Hesheng Chen of the Institute of High Energy Physics, Chinese Academy of Sciences, co-founded a joint laboratory on neutron scattering. The joint laboratory has received financial support from The Croucher Foundation, Hong Kong's Research Grants Council, and the Chinese Academy of Sciences. In 2020, Professor Wang contributed to the establishment of the Guangdong-Hong Kong-Macau Joint Laboratory on Neutron Scattering and served as the Executive Director in Hong Kong. In the meanwhile, Professor Wang has maintained an active research portfolio. His current research interests include structure and dynamics in metallic glass, deformation behaviors in high entropy alloys, and magneto-elastic coupling in magnetic shape memory alloys.

Professor Wang earned his Ph.D. from Iowa State University and B.S. from Peking University, both in Physics. He is an elected Fellow of the American Physical Society (APS), American Association for the Advancement of Science (AAAS), Neutron Scattering Society of America (NSSA). He currently serves as an International Councilor and a member of the Board of Directors of the American Physical Society.

Research Interests / Areas		
Phase Transformation, Deformation, Phonon Dynamics, Magnetism	Neutron and Synchrotron X-ray Scattering	Metallic Glasses and High Entropy Alloys

EDUCATION

1992 **Ph.D.** in Solid State Physics, **Iowa State University**, USA
1985 **B.S.** in Physics, **Peking University**, China

HONORS AND AWARDS

2024 **Elected Board Member,** American Physical Society
2024 **Co-Chair**, Gordon Research Conference on Structural Nanomaterials, Les Diablerets, Switzerland
2023 **Elected International Councilor,** American Physical Society
2022 **The President's Award**, City University of Hong Kong
2021 **Croucher Senior Research Fellowship**, Croucher Foundation
2020 **Elected Fellow**, Neutron Scattering Society of America (NSSA)
2018 **Lee Hsun Lectureship**, Chinese Academy of Sciences
2017 **Elected Fellow**, American Association for the Advancement of Science (AAAS)
2015 **Inaugural Chair**, Gordon Research Conference on Neutron Scattering, Hong Kong
2010 **Elected Fellow**, American Physical Society (APS)
2009 **Chang Jiang Chair Professorship** （长江讲座教授）, Chinese Ministry of Education
2008 **Outstanding Oversea Scholars**（中国科学院海外知名学者）, Chinese Academy of Sciences
2006 **Outstanding Oversea Young Scientist Award** （基金委杰青 B 类）, National Natural Science Foundation of China
2003 **Significant Event Award**, Oak Ridge National Laboratory, USA
1999 **A. F. Davis Silver Medal**, American Welding Society
1998 **Significant Event Award**, Oak Ridge National Laboratory, USA
1985 **CUSPEA** (China-U.S. Physics Examination and Application, 中美联合培养物理类研究生计划) **Scholar**, Chinese Ministry of Education

PRIMARY POSITIONS HELD

City University of Hong Kong, Hong Kong (2012 – present)

2022-2023 **Executive Director,** Hong Kong Institute for Advanced Study
2017-2023 **Chair Professor and Founding Head**, Department of Physics
2020-2021 **Founding Director**, City University of Hong Kong Dongguan Research Institute
2012-2017 **Chair Professor and Head**, Department of Physics & Materials Science

Oak Ridge National Laboratory, USA (1992 – 2012)

2009-2012 **Distinguished Research Staff**
2006-2011 **Group Leader**, Powder Diffraction Group, Neutron Scattering Science Division
2004-2006 **Senior Research Staff**, Experimental Facilities Division, Spallation Neutron Source Project
1999-2011 **Instrument Scientist and Project Manager for VULCAN**, Spallation Neutron Source

1994-1999 **Research Staff Member**, Metals and Ceramics Division
1992-1994 **Postdoctoral Fellow**, Metals and Ceramics Division

OTHER POSITIONS HELD

2024-2025 **Visiting Scholar,** Harvard University
2024-present **Member,** Board of Directors, American Physical Society
2023-present **International Councilor,** American Physical Society
2019-2023 **President,** Physical Society of Hong Kong
2015-2018 **Guest Professor**, Institute of High Energy Physics, Chinese Academy of Sciences
2011 **Guest Scientist**, National Institute for Materials Science (NIMS), Japan

EDITORIAL APPOINTMENTS

2021– present **Editor**, *Acta Materialia and Scripta Materialia*.

MAJOR CONFERENCES ORGANIZED

- Gordon Research Conference on Structure Nanomaterials, Les Diablerets, Switzerland, May 12-17, 2024 (Co-Chair)
- HK Tech Forum, Quantum Physics and Complex Systems, Hong Kong, December 7-9, 2022 (Co-Chair) (report in Nature).
- Gordon Research Conference on Neutron Scattering, Hong Kong, June 21-2026, 2015 (Inaugural Chair)

RESEARCH GRANTS (over HK$50 million since joining CityU in 2012, highlights below)

- 10 projects funded by the Research Grants Council (Hong Kong):
  - 2 Collaborative Research Fund (CRF) (as Project Coordinator),
  - 2 grants under the Joint Laboratory Funding Scheme (JLFS) (as Project Coordinator),
  - 1 grant under the RGC/NSFC Joint Research Scheme
  - 5 General Research Fund (GRF) grants
- 5 grants from the Croucher Foundation (Hong Kong)
- 1 Contract Research from Oak Ridge National Laboratory (USA)
- 1 grant from the National Science Foundation of China (NSFC)
- 1 State Key Project by the Ministry of Science and Technology (China) (co-PI)
- 1 AoE proposal (as Project Coordinator) shortlisted for panel interview (June 2023, June 2024)

SELECTED PUBLICATIONS (~280 in total)

To view the full list of publications, please click HERE or visit my Google Scholar.

[1] L. Zhu, H. Y. He, M. Naeem, X. Sun, J. Qi, P. Liu, S. Harjo, K. Nakajima, B. Li*, and **X.-L. Wang***, "Antiferromagnetism and phase stability of CrMnFeCoNi high-entropy alloy," *Physical Review Letters*, **133**, 126701 (2024).

[2] G. L. Cai, Y. H. Li, Y. Fu, H. Yang, L. Mei, Z. Y. Nie, T. F. Li, H. Liu, Y. B. Ke, **X.-L. Wang**, J.-L. Brédas, M.-C. Tang, X. K. Chen, X. W. Zhan, X. H. Lu, "Deuteration-enhanced neutron contrasts to probe amorphous domain sizes in organic photovoltaic bulk heterojunction films," *Nature Communications*, **15**, 2784 (2024)

[3] X. Xia, T. K. Lau, X. Guo, Y. Li, M. Qin, K. Liu, Z. Chen, X. Z. Zhan, Y. Q. Xiao, P. F. Chan, H. Liu, L. H. Xu, G.. L. Cai, N. Li, H. M. Zhu, G. Li, Y. Zhu, T. Zhu, X. W. Zhan, **X.-L. Wang**, X. H. Lu, "Uncovering the out-of-plane nanomorphology of organic photovoltaic bulk heterojunction by GTSAXS," *Nature Communications*, **12**, 1-10 (2021).

[4] S. Lan*, L. Zhu, Z. D. Wu, L.n Gu, Q. H. Zhang, H. H. Kong , J. Z. Liu, R. Y. Song, S. N. Liu, G. Sha, Y. G. Wang, Q. Liu, W. Liu, P. Y. Wang, C. T. Liu, Y. Ren*, and **X.-L. Wang***, "A medium-range structure motif linking amorphous and crystalline states," *Nature Materials*, **20**, 1347–1352 (2021)

[5] H.Y. He, M. Naeem, F. Zhang, Y.L. Zhao, S. Harjo, T. Kawasaki, B. Wang, X.L. Wu, S. Lan, Z.D. Wu, W. Yin, Y. Wu, Z.P. Lu, J.J. Kai, C.T. Liu, **X.-L. Wang***, "Stacking Fault Driven Phase Transformation in CrCoNi Medium Entropy Alloy", *Nano Letters*, 21, 3, 1419–1426 (2021)

[6] X. Y. Li, H. P. Zhang, S. Lan, D. L. Abernathy, T. Otomo, F. W. Wang, Y. Ren, M. Z. Li*, and **X.-L. Wang***, "Observation of High-Frequency Transverse Phonons in Metallic Glasses", *Physical Review Letters*, 124, 225902 (2020).

[7] M. Naeem, H. Y. He, F. Zhang, H. L. Huang, S. Harjo, T. Kawasaki, B. Wang, S. Lan, Z. D. Wu, F. Wang, Y. Wu, Z. P. Lu, Z. W. Zhang, C. T. Liu, and **X.-L. Wang***, "Cooperative deformation in high-entropy alloys at ultralow temperatures," *Science Advances*, 6, eaax4002 (2020).
This paper is featured in several news outlets, including
Phys.org, "Multi-stage deformation process in high-entropy alloys at ultra-low temperatures revealed"
Eureka! "Multi-stage deformation process in high-entropy alloys at ultra-low temperatures revealed"
Japan Proton Accelerator Complex Press Release (in Japanse)
極低温で現れる先進的合金の特異な変形メカニズムを解明

[8] X. Y. Li, P.-F. Liu, E. Y. Zhao, Z. G. Zhang, T. Guidi, M. Le, M. Avdeev, K. Ikeda, T. Otomo, M. Kofu, K. Nakajima, J. Chen, L. H. He, Y. Ren, **X.-L. Wang**, B. T. Wang, Z. F. Ren, H. Z. Zhao, and F. W. Wang, "Ultralow Thermal Conductivity from Transverse Acoustic Phonon Suppression in Distorted Crystalline α-MgAgSb," *Nature Communications*, 11, 1-9 (2020).

[9] C. C. Yuan, F. Yang, X. K. Xi, C. L. Shi, D. Holland-Moritz, M. Z. Li, F. Hu, B. L. Shen, **X.-L. Wang**, A. Meyer, and W. H. Wang, "Impact of hybridization on metallic-glass formation and design," *Materials Today*, 32, 26-34 (2020).

[10] S. Lan, C. Y. Guo, W. Z. Zhou, Y. Ren, J. Almer, C. Q. Pei, H. Hahn, C. T. Liu, T. Feng*, **X.-L. Wang***, and H. Gleiter, "Engineering medium-range order and polyamorphism in a nanostructured amorphous alloy," *Communication Physics*, 2, 1-9 (2019).

[11] B. Wang, H. Y. He, M. Naeem, S. Lan, S. Harjo, T. Kawasaki, Y. X, Nie, H.W. Kui, T. Ungár, D. Ma, A. D Stoica, Q. Li, Y. Ke, C. T. Liu, and **X.-L. Wang***, "Deformation of CoCrFeNi high entropy alloy at large strain," *Scripta Materialia*, 155, 54-57 (2018).

[12] S. Lan, Y. Ren, X. Y. Wei, B. Wang, E. P. Gilbert, T. Shibayama, S. Watanabe, M. Ohnuma, and **X.-L. Wang***, "Hidden Amorphous Phase and Reentrant Supercooled Liquid in Pd-Ni-P Metallic Glasses," *Nature Communications* **8**, 14679 (2017); doi:10.1038/ncomms14679
(This work solved a 40-year old scientific mystery. The story was covered widely in news media in English, Japanese, and Chinese. Examples:
ScienceDaily, "Atomic 're-packing' behind metallic glass mystery"
Phys.org, "Insights may lead to design and development of superior metallic alloys,"
Hokkaido University, "40 年間謎とされてきたアモルファス合金の示差走査熱量測定に おける異常発熱の理由を中，米，豪，日の 4 カ国共同て初めて解明"

NSFC, 我国青年学者发现非晶合金在晶化温度以下的多形性相变,
Also featured in Nature Communications' collection series, Metallurgy)
[13] H. S. Chen*, and **X.-L. Wang***, "China's first pulsed neutron source," *Nature Materials*, **15**, 689 – 691 (2016).
[14] A. Pramanick, M. R. V. Jørgensen, S. O. Diallo, A. D. Christianson, J. A. Fernandez-Baca, C. Hoffmann, X. Wang, S. Lan, and **X.-L. Wang**, "Nanoscale Atomic Displacements Ordering for Enhanced Piezoelectric Properties in Lead-free ABO_3 Ferroelectrics," *Advanced Materials.*, **27**, 4330-4335 (2015) (front cover).
[15] A. Pramanick, **X.-L. Wang***, A. D. Stoica, C. Yu, Y. Ren, S. Tang, and Z. Gai, "Kinetics of magnetoelastic twin boundary motion in ferromagnetic shape memory alloys," *Physical Review Letters*, **112**, 217205 (2014).
[16] S. Cheng, S. Y. Lee, C. Lei, L. Li, J. Almer, **X.-L. Wang**, Y. M. Wang, T. Ungar, P. K. Liaw, "Uncommon Deformation Mechanisms during Fatigue-Crack Propagation in Nanocrystalline Alloys," *Physical Review Letters*, **110**, 135501 (2013).
[17] Y. Wu, D. Q. Zhou, W. L. Song, H. Wang, Z.Y. Zhang, D. Ma, **X. L. Wang**, and Z. P. Lu, "Ductilizing Bulk Metallic Glass Composite by Tailoring Stacking Fault Energy," *Physical Review Letters*, **109**, 245506 (2012).
[18] D. Ma, A. D. Stoica, **X.-L. Wang***, Z. P. Lu, B. Clausen, D. W. Brown, "Moduli inheritance and the weakest link in metallic glasses," *Physical Review Letters*, **108**, 085501 (2012)
(covered by News and Views, Nature Materials, 11, 275–276 (2012))
[19] **X.-L. Wang***, K. An, L. Cai, Z. Feng, S. E. Nagler, C. Daniels, K. J. Rhodes, D. L. Wood, III., A. D. Stoica, H. D. Skorpenske, C. Liang, W. Zhang, Y. Kim, Y. Qi, and S. J. Harris, "Visualizing the chemistry and structure dynamics in Li-ion batteries by in-situ neutron diffraction," *Scientific Report*, **2**, 747 (2012).
[20] I. Robertson, C. Schuh, J. Vetrono, N. Browning, D. Field, D. Juul-Jensen, M. Miller, I. Baker, D. Dunand, R. Dunin-Borkowski, B. Kabius, T. Kelly, S. Lorano-Perez, A. Misra, G. Rohrer, T. Rollett, M. Taheri, G. Thomson, M. Uchic, **X.-L. Wang**, G. Was, "Towards an integrated materials characterization toolbox," a viewpoint paper in *Journal of Materials Research*, **26**, 1341-1383 (2011).
[21] Z. W. Zhang, C. T. Liu, **X.-L. Wang***, K. C. Littrell, M. K. Miller, K. An, and B. A. Chin, "From embryos to precipitates: a study of nucleation and growth in a multicomponent ferritic steel," *Physical Review B*, **84**, 174114 (2011).
[22] S. Cheng, Y. Zhao, Y. Wang, Y. Li, **X.-L. Wang**, P. K. Liaw, and E. J. Lavernia, "Structure modulation in nanocrystalline NiFe driven by cyclic deformation," *Physical Review Letters*, **104**, 255501 (2010).
[23] S. Cheng, Y. Zhao, Q. Wei, **X.-L. Wang**, Y. Ren, P. K. Liaw, H. Choo, and E. J. Lavernia, "Substantial Deformation of Nanocrystalline NiFe Alloy under Dynamic Loading," *Advanced Materials*, **21**, 5001–5004 (2009).
[24] S. Cheng, A.D. Stoica, **X.-L. Wang***, Y. Ren, J. Almer, J.A. Horton, C.T. Liu, B. Clausen, D.W. Brown, P.K. Liaw, and L. Zuo, "Deformation cross-over: from nano to meso scales," *Physical Review Letters*, **103**, 035502 (2009).
(selected for inclusion in August 3 issue of Virtual Journal of Nanoscale Science & Technology)
[25] D. Ma, A. D. Stoica, and **X.-L. Wang***, "Power-law scaling and fractal nature of the medium range order in metallic glasses," *Nature Materials*, **8**, 30-34 (2009).
[26] L. Yang, M. K. Miller, **X.-L. Wang***, C. T. Liu, A. D. Stoica, D. Ma, J. Almer, and D. Shi, "Nano-scale solute partitioning in devitrified bulk metallic glass," *Advanced Materials*, **21**, 305-308 (2009) (featured on the cover).
[27] C. T. Liu, C. L. Fu, M. F. Chrisholm, and J. R. Thompson, Krcmar, and **X.-L. Wang**, "Magnetism and solid solution effects in NiAl (40%Al) alloys," *Progress in Materials Science,* **52**, 352-370 (2007).
[28] **X.-L. Wang**, "Application of neutron diffraction to engineering problems," *JOM*, March, 53-58 (2006).
[29] **X.-L. Wang***, T. M. Holden, G. Q. Rennich, A. D. Stoica, P. K. Liaw, H. Choo, and C. R. Hubbard, "VULCAN – The Engineering Diffractometer at the SNS," *Physica B*, **385-386**, 673-675 (2006).

[30] **X.-L. Wang***, J. Almer, Y. D. Wang, J. K. Zhao, C. T. Liu, A. D. Stoica, D R. Haeffner, and W. H. Wang, "In-situ Synchrotron Study of Phase Transformation Behaviors in Bulk Metallic Glass Using Simultaneous X-ray Diffraction and Small Angle Scattering," *Physical Review Letters,* **91**, 265501 (2003).

[31] Y.D. Wang*, H. Tian, A. D. Stoica, **X.-L. Wang***, P. K. Liaw, and J.W. Richardson, "Development of Large Grain-Orientation-Dependent Residual Stresses in a Cyclically-Deformed Alloy," *Nature Materials*, **2**, 103-106 (2003).
(covered by Materials Today, http://www.materialstoday.com/pdfs_6_3/research.pdf)

[32] W.-T. Lee and **X.-L. Wang**, "IDEAS, a General-purpose Computer Program for Simulation of Neutron Scattering Instruments," *Neutron News*, **13** (No. 4), 30-34 (2002).

[33] **X.-L. Wang,** "Conceptual Design of the SNS Engineering Diffractometer", SNS Report No. IS-1.1.8.2-6035-RE-A-00 (2000).

[34] Z. Wang, **X.-L. Wang**, J. A. Fernandez-Baca, D. C. Johnston, and D. Vaknin, "Antiferromagnetic Ordering and Paramagnetic Behavior of Ferromagnetic Clusters in $BaCuO_{2+x}$," *Science*, **264**, 402-404 (1994).

[35] L. L. Miller, **X. L. Wang**, S. X. Wang, C. Stassis, D. C. Johnston, J. Faber Jr., and C.-K. Loong, "Synthesis, Structure and Properties of $Sr_2CuO_2Cl_2$," *Physical Review* B**, 41**, 1921 (1990).

[36] 王循理，黄孝培，"绝热磁化致冷的可能性"，《大学物理》1，15-15 （1986）
(my first publication, a paper by two undergraduate students)

SELECTED INVITED TALKS (~150 in total)

1. Colloquia Speaker, Department of Physics and Astronomy, Texas A&M University, October 31, 2024
2. Summer School on Fundamental Physics, School of Physics, Peking University, "Introduction to Scattering Science," August 1-9, 2024
3. Seminar Speaker, Tsinghua University, July 31, 2024
4. Colloquia Speaker, Harvard John A. Paulson School of Engineering and Applied Sciences, Harvard University, "Low-Temperature Deformation in High-Entropy Alloys," October 20, 2023
5. Distinguished Colloquium, School of Physics, Peking University, "Structure and Dynamics of Metallic Glass - Atomistic Insights from Scattering Experiments," October 14, 2023
(Special colloquium celebrating the 110th Anniversary of Physics at Peking University)
6. Plenary Speaker, The 18th International Conference on Liquid and Amorphous Metals, Hiroshima, Japan, September 4-9 (2022)
7. Plenary Speaker, MECASENS 2021, Prague, Czech Republic, 2021 (online)
8. Plenary Speaker, 2019 Asia Oceana Conference on Neutron Scattering, Kenting, Taiwan, 2019
9. The President's Lecture Series: Excellence in Academia, City University of Hong Kong, 2019
10. Lee Hsun Lecture, Institute of Metal Research, Chinese Academy of Sciences, 2018
11. Gordon Research Conference on Neutron Scattering, Hong Kong, 2017
12. International Conference on Neutron Scattering, Daejeon, Korea, 2017
13. Armourers & Brasiers' Cambridge Forum, University of Cambridge, UK, 2017
14. Seminar at Department of Physics, University of California, San Diego, USA, 2017
15. Material Research Society Fall Meeting, Boston, USA, 2016
16. Material Research Society Fall Meeting, Boston, USA, 2015
17. Keynote at the 3rd Neutron Scattering User Meeting in China, Peking University, China, 2015
18. Gordon Research Conference on Structural Nanomaterials, Hong Kong, 2014
19. Seminar at Department of Chemistry, University of Sydney, Australia, 2014
20. Plenary Lecture, The 16th Hong Kong Physical Society Annual Meeting, Hong Kong, 2013
21. Seminar at School of Physics, Peking University, China, 2013
22. Knowledge Innovation Forum, Institute of High Energy Physics, Chinese Academy of Sciences, China, 2013
23. Colloquium at Department of Physics, Fudan University, China, 2013

24. Distinguished Lecture at the 17th Annual Conference of Hong Kong Society for Theoretical and Applied Mechanics, Hong Kong, 2013
25. Materials Research Society Fall Meeting, Boston, USA, 2012
26. Seminar at Department of Nuclear Engineering, MIT, USA, 2012
27. Seminar at School of Engineering and Applied Sciences, Harvard University, USA, 2012
28. Seminar at Faculty of Engineering, "Application of neutron scattering to engineering problems," Dalhousie University, Nova Scotia, Canada, March 30,
29. The ISIS Facilities, Rutherford Appleton Laboratory, UK, 2011
30. The 43rd Erice Crystallographic Course, entitled "The Power of Powder Diffraction", Erice, Sicily, Italy, 2011
31. HANARO 15th Anniversary Celebration Symposium 2010, Daejeon, Korea, 2010
32. Colloquium at Department of Physics, University of North Carolina at Chapel Hill, 2010
33. GE Global Research, Niskayuna, New York USA, 2010
34. Institute of Metal Research, Tohoku University, Japan, 2009
35. US DOE-BES workshop "Characterizing Materials Damage in Four Dimensions," 2009
36. The International Conference on Neutron Scattering, Knoxville, USA, 2009
37. The 137th Lecture of Zhong Guan Chun Forum （中关村论坛）, Institute of Physics, Chinese Academy of Science, China, 2008
38. US DOE/BES Mechanical Behavior Contractors Meeting, San Anatonio, USA (by invitation only), 2006
39. Winter Neutron School, Los Alamos National Laboratory, USA, 2005
40. Institute Laue-Langevin, France, 1997
41. Materials Department, University of California at Santa Barbara, Santa Barbara, California, 1996
42. May 1995, GE Aircraft Engines, Cincinnati, Ohio, 1995

PROFESSIONAL SERVICES

Committees

- Member of the Board of Directors, American Physical Society (2024-2026)
- International Councillor, American Physical Society (2023-2026)
- President, Physical Society of Hong Kong (2020-2023)
- Member of the Academic Committee, China Center of Advanced Science and Technology (CCAST), 2021 – present
- Member of the Academic Committee, Songshanhu Materials Laboratory, 2020 – present
- Member, Science and Technology Advisory Committee, China Spallation Neutron Source (CSNS), 2012 – present
- Member of the Overseas Assessment Panel, Chinese Academy of Sciences, 2016 – 2020
- Member, Advisory Committee on Large Scale Scientific Facilities, Chinese Academy of Sciences, 2015 – 2019
- Member, 2016/17 Hong Kong PhD Fellowship Scheme (HKPFS) Selection Panel, Research Grant Council, Hong Kong
- AONSA Prize Selection Committee (six members in total), The Asia-Oceania Neutron Scattering Association (AONSA), August – September 2014
- Member, The Bragg Institute Program Advisory Committee, The Australian Nuclear Science and Technology Organization (ANSTO), 2013 – 2016
- Member of the Selection Committee for "Sustained Research and Science Prize", Neutron Scattering Society of America, 2012
- Chair, Chemistry and Physics of Materials Committee, TMS (www.tms.org), 2011 – 2013
- U.S. Department of Energy CD-1 (Critical Decision 1) review of Dynamic Compression Sector at Advanced Photon Source, December 19-20, 2011, Argonne National Laboratory, USA

- Review Committee, U.S. Department of Energy, Office of Basic Energy Sciences, Operational Review of the Advanced Photon Source, September 12-15, 2011, Argonne National Laboratory, USA
- Member, Proposal Review Committee Member for CROSS [Comprehensive Research Organization for Science and Society], Japan Ministry of Education, Culture, Sports, Science & Technology (MEXT), 2011 – 2014, Japan
- Member, Neutron Science Proposal Review Committee (NSPRC), Japan Proton Accelerator Complex, 2010 – 2013 (one of the 4 international members out of a 20-member committee), Japan
- Invited speaker and participant of a panel study, "Characterizing Materials Damage in Four Dimensions", sponsored by the Council for the Division of Materials Sciences and Engineering (DMS&E), Office of Basic Energy Sciences (BES), U.S. Department of Energy (DOE), August 16-19, 2009 in Annapolis, Maryland, USA
- Member, Review Committee of Los Alamos Lujan Neutron Science Center, US DOE, Office of Basic Energy Sciences, February 10-12, 2009, Los Alamos, USA
- Chair, Review Committee of the TAKUMI instrument at Japan Proton Accelerator Complex, October 2006, Japan.

Organizer of Conferences/Workshops

- Co-Chair of the Gordon Research Conference on Structure Nanomaterials, Les Diablerets, Switzerland, 2024.
- Chair of the International Program Committee, 2023 Asia Oceana Conference on Neutron Scattering, Dongguan, China, 2023
- International Advisory Committee, International Conference on Neutron Scattering, Buenos Aires, Argentina, 2022.
- Co-Chair (with D. H Yu), QENS-WINS2018, The 13th International Conference on Quasielastic Neutron Scattering, and the 8th Workshop on Inelastic Neutron Scattering, July 15-20, 2018, Hong Kong
- Director, Croucher Summer Course on Neutron Scattering, 2014, 2016, 2018, 2023, Hong Kong
- Chair of the inaugural Gordon Research Conference on Neutron Scattering, June 21-25, 2015, Chinese University of Hong Kong
- Lead organizer (with Brent T. Fultz, M. K. Crawford, and M. D. Lumsden), Symposium on "Neutron Scattering Study of Advanced Materials", 2013 MRS Fall Meeting, December 1-6, 2013, Boston, USA
- Co-organizer (with M. K. Crawford of Dupont), Energy and Engineering Materials (4 sessions), at American Conference on Neutron Scattering, June 24-28, 2012
- Lead organizer (with Brent T. Fultz and Hahn Choo), Symposium on "Emerging Application of Neutron Scattering in Materials Science and Engineering", 2009 TMS Annual Conference, February 16-19, 2009, San Francisco, USA
- Co-organizer (with Peter K. Liaw and H. Choo) of ANSWER/MRI Tutorial Series: Neutron and Synchrotron Scattering 101 for Structural Materials Researchers, February 14, 2010 at 2010 TMS Annual Meeting, Seattle, USA
- Member of Program Committee, International Conference on Residual Stress, August 6-8, 2008, Denver, USA
- Member of International Program Committee, International Symposium on Pulsed Neutron and Muon Sciences (IPS08), March 5-7, 2008 in Mito, Japan
- Co-organizer, Educational Symposium on Neutrons for Materials Science and Engineering, April 18, 2007, Oak Ridge, USA
- Co-organizer, Neutron Stress, Texture, and Phase Transformation for Industry, April 19, 2007, Oak Ridge, USA
- Session Organizer, *Neutron Diffraction*, International Collaboration on Advanced Neutron Sources (ICANS XVIII), April 25-30, 2007, Dongguan, China

- Session Organizer, *Engineering/Applications*, American Conference on Neutron Scattering, June 18-22 (2006)
- Session Organizer, *Time-dependent Investigations*, American Crystallography Association Annual Meeting, Hawaii, July 22-27 (2006)
- Co-organizer, *MECA-SENS III*, October 2005, Santa Fe, USA
- Co-organizer, *Symposium on Neutron Diffraction Characterization of Mechanical Behaviors*, 2005 TMS Annual Meeting
- Member of the International Organizing Committee, *7th International Conference on Residual Stress*, June 14-17, 2004, Xi'an, China
- Co-organizer, 1st NSF *International Materials Institute Workshop*, November 17-20, 2003, Knoxville, USA
- Co-organizer, *NESSI (NEutron Science Software Initiative) Workshop*, October 13-15, 2003, Oak Ridge, USA
- Co-organizer, *Special MRS Symposium on Emerging Applications of Neutron Scattering In Materials Science and Engineering Research*, Material Research Society, November 27, 2001, Boston, USA
- Co-organizer, Joint Institute for Neutron Sciences Workshops on "*Application of Neutron Scattering to Materials Science and Engineering*", October 1-3, 2001, Oak Ridge, Tennessee, USA
- Program Committee Member, Workshop on *Application of Neutron Scattering in Materials Science and Engineering*, October 1-3, 2001, Joint Institute of Neutron Scattering, Oak Ridge, TN, USA.
- Organizer of a workshop on *Performance Requirements for the SNS Engineering Diffractometer*, January 20-21, 2000, Atlanta, Georgia, USA
- Co-organizer of a workshop on Monte Carlo Simulation of Neutron Beam Optics, January 13-14, 2000, Oak Ridge, TN, USA