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a. Professional Preparation:

Xi'an Jiaotong University, Applied Mathematics	B.Sc	1996
M.I.T, Mathematics (MSc Thesis Advisor: Jacob White)	M.Sc	1999
Princeton University, Electrical Engineering (Solid State Physics)		
PhD Thesis Advisor: Daniel C. Tsui (Nobel Laureate)	Ph.D	2005
Rice University, Dept. of Physics & Smalley Institute (AMO physics)		
Postdoc Advisor: Randall G. Hulet	Postdoc	2005-2007

b. Professional Appointments:

2019-	Karl Lark-Horovitz Professor of Physics and Astronomy, Purdue University
2019-	Villum Investigator, Visiting Professor (2020) and Professor (2021-, dual appointment), Department of Physics and Astronomy, Aarhus University, Aarhus, Denmark;
2019-	Director, Purdue Quantum Science and Engineering Institute (PQSEI)
2016-	Professor of Physics and Astronomy and Professor of Electrical and Computer Engineering, Purdue University
2018-2019	Associate Director for Research, Birck Nanotechnology Center, Purdue University;
2012-2016	Associate Professor of Physics and Astronomy and Associate Professor of Electrical and Computer Engineering, Purdue University
2007-2012	Miller Family Assistant Professor of Nanoscience and Physics and Assistant Professor Courtesy of Electrical and Computer Engineering, Purdue University
2005-2007	J. Evans Attwell and Welch Postdoctoral Fellow, Rice University
1999-2005	Gordon Y. S. Wu Ph.D Fellow and Graduate Research Assistant, Princeton University,
1997-1999	Applied Mathematics Fellow and Y. T. Li Fellow and Graduate Teaching Assistant, MIT
	<i>Other/Concurrent appointments, associations and activities</i>
2020-	Visiting and Chair Professor, Macau Univ. of Science and Technology, Macau
2019-	Associate Editor, American Vacuum Society (AVS) - Quantum Science (AQS), American Institute of Physics (AIP)
2017-	Principal Investigator, WPI (World Premier International Research Center)-Advanced Institute for Materials Research (AIMR), Tohoku University, Japan

c. Research areas:

Experimental condensed matter physics & nanoscience (graphene/2D materials, topological insulators, 2D electrons/quantum Hall physics) and atomic/molecular/optical (AMO)/quantum physics/quantum photonics (cold atom Bose-Einstein condensation, cold molecules)

d. Selected Honors/Awards:

Herbert N. McCoy Award, Purdue University (2021); Villum Investigator Award, Villum Foundation, Denmark (2019); Karl Lark-Horovitz Professorship, Purdue University (2019); Fellow of American Physical Society (2016); Masao Horiba Honorable Award for Nanoparticle Measurement, Horiba, Japan (2015); Purdue University Faculty Scholar (2013-2018); Purdue University Excellence in Research Award (2012, 2013); NSF CAREER Award (2009-2014); IBM Faculty Award (2009); Defense Threat Reduction Agency (DTRA) Young Investigator Award (2009-2011); Miller Family Professorship, Purdue University (2007-2012); J. Evans Attwell-Welch Postdoctoral Fellowship in Nanoscience, Rice University (2005-2007); International Union of Pure and Applied Physics (IUPAP) Young Author Best Paper Award in Semiconductor Physics (2004)

e. Representative Leadership/Service/Mentoring Activities:

- Scientific Advisor Committee, Argonne National Lab Center for Nanoscale Materials (CNM), 2024-
- Governance Advisor Board (GAB) and Purdue site PI, Quantum Science Center (QSC), a US Department of Energy (DOE) National Quantum Initiative (NQI) Quantum Information Science (QIS) Research Center headquartered at Oak Ridge National Lab, 2020-
- Commissioner and US Representative in International Union for Pure & Applied Physics (IUPAP) Commission (C-8) on Semiconductor Physics, 2017-
- Inaugural Director, Purdue Quantum Science and Engineering Institute (PQSEI), 2019-
- Leadership Council, Purdue University Birck Nanotechnology Center, 2021-
- Director of Purdue Quantum Center (PQC, becomes PQSEI in 2019), 2016-2019
- Associate Director for Research, Birck Nanotechnology Center, Purdue University, 2018-2019
- Chair of Purdue University interdisciplinary Quantum Information Science (QIS) faculty cluster hiring search committee, 2023-2024
- Associate Editor/Editorial Board, AIP *AVS Quantum Science*, 2019-; Elsevier *Science Bulletin*, 2017-; Nature's *Scientific Reports* (2011-2018)
- Co-director, Tohoku Quantum Alliance, 2020-
- Frequent reviewer for *Science*, *Nature*, *Nat. Phys./Mater./Nano./Comm.*, *Phys. Rev. Lett.*, *Nano Lett.* etc.
- Grant reviewer for NSF, DOE, DOD, DHS, Research Corporation, ACS, NASA, DFG, ERC, SNSF etc.
- Received 50 grants (>30 as PI) totalling ~\$40M (>\$20M Chen's support) since 2008
- Delivered >140 invited conference/workshop talks (including Gordon conference and annual meetings of major societies eg. APS, MRS, ECS, AVS, DRC etc.) and >120 invited seminars/colloquia
- Tutorial instructor on graphene, APS March Meeting (2014); panelist for the rump session "transistors: the next 50 years" at Device Research Conference (DRC) 2013
- Program Committee, APS DAMOP (chair of March Meeting subcommittee, 2016-2017) and APS March Meeting, 2015-2017, and Device Research Conference (DRC), 2013-2015
- Organizer & Chair, 2019 International Symposium in Quantum Science and Technology and 2019 Joint Purdue-Tohoku Workshop on Spintronics
- Organizer & Chair, 2013 Midwest Cold Atom Workshop (MCAW);
- Co-organizer: APS march meeting focus sessions (2014 & 2015) and DRC short course (2013) on "beyond graphene" 2D materials
- Mentoring (past+current): postdocs (16+8), grad students (15+6, student awards: NSF/NDSEG/Intel Fellowships & twice highest graduate student award in Purdue Physics, etc.), undergrads (>40, many entered grad schools eg. Harvard, MIT, Princeton, Stanford, Cornell, Austin, Colorado, etc.); 8 past PhDs/postdocs have become university professors in USA (4), India (1) and China (3).

f. Representative publications: (full list at <http://www.physics.purdue.edu/quantum/publications.php>;

Citations: >18,000 (Google Scholar), >12,000 (ISI); H-index: 64 (Google Scholar), 56 (ISI) as of 11/2023)

1. Guanhui Cheng, ..., Pramey Upadhyaya, Yong P. Chen, "Electrically tunable moiré magnetism in twisted double bilayer antiferromagnets", **Nature Electronics** 6, 434 (2023) [featured on cover]
2. Chuan-Hsun Li, Yangqian Yan, Sayan Choudhury, David B. Blasing, Qi Zhou, and Yong P. Chen, "A Bose-Einstein Condensate on a Synthetic Hall Cylinder", **PRX Quantum** 3, 010316 (2022)
3. Jifa Tian, Luis A Jauregui, Chris Wilen, Albert Rigosi, David B Newell, Robert McDermott, Yong P Chen, "A Josephson Junction with h-BN tunnel barrier: observation of low critical current noise", **Journal of Physics: Condensed Matter** 33, 495301 (2021)
4. Morteza Kayyalha, Aleksandr Kazakov, Ireneusz Miotkowski, Sergei Khlebnikov, Leonid P. Rokhinson, and Yong P. Chen, "Highly skewed current-phase relation in superconductor-topological insulator-superconductor Josephson junctions", **npj Quantum Materials** 5, 7 (2020)
5. Yang Xu, Guodong Jiang, Ireneusz Miotkowski, Rudro R. Biswas, and Yong P. Chen, "Tuning insulator-semimetal transitions in 3D topological insulator thin films by inter-surface hybridization and in-plane magnetic fields", **Physical Review Letters** 123, 207701 (2019)

6. Chuan-Hsun Li, Chunlei Qu, Robert J. Niffenegger, Su-Ju Wang, Mingyuan He, David B. Blasing, Abraham J. Olson, Chris H. Greene, Yuli Lyanda-Geller, Qi Zhou, Chuanwei Zhang & Yong P. Chen, “Spin current generation and relaxation in a quenched spin-orbit coupled Bose-Einstein condensate”, **Nature Communications** 10, 375 (2019)
7. David B. Blasing, Jesús Pérez-Ríos, Yangqian Yan, Sourav Dutta, Chuan-Hsun Li, Qi Zhou, Yong P. Chen, “Observation of Quantum Interference and Coherent Control in a Photo-Chemical Reaction”, **Physical Review Letters** 121, 073202 (2018)
8. Biddu K. Sarker, Edward Cazalas, Ting-Fung Chung, Isaac Childres, Igor Jovanovic, and Yong P. Chen, “Position dependent and millimeter-range photodetection in phototransistors with micron-scale graphene on SiC”, **Nature Nanotechnology** 12, 668-674 (2017)
9. Jifa Tian, Seokmin Hong, Ireneusz Miotkowski, Supriyo Datta, Yong P. Chen, “Observation of current-induced, long-lived persistent spin polarization in a topological insulator: a rechargeable spin battery”, **Science Advances** 3, e1602531 (2017)
10. Luis A. Jauregui, ..., Li Shi, Yong P. Chen, “Magnetic field induced helical mode and topological transitions in a quasi-ballistic topological insulator nanoribbon with circumferentially quantized surface state sub-bands”, **Nature Nanotechnology** 11, 345 (2016)
11. Jifa Tian, I. Miotkowski, S. Hong and Yong P. Chen, “Electrical injection and detection of spin-polarized currents in topological insulator Bi_2Te_2Se ”, **Scientific Reports** 5, 14293 (2015)
12. Y. Xu, I. Miotkowski, C. Liu, J. Tian, H. Nam, N. Alidoust, J. Hu, C-K. Shih, M. Z. Hasan, Y.P. Chen, “Observation of topological surface state quantum Hall effect in an intrinsic three-dimensional topological insulator”, **Nature Physics** 10, 956 (2014)
13. A.J. Olson, S-J. Wang, R.J. Niffenegger, C-H. Li, C.H. Greene, Y.P. Chen, “Tunable Landau-Zener transitions in a spin-orbit coupled Bose-Einstein condensate”, **Phys. Rev. A** 90, 013616 (2014)
14. S. Dutta, J. Lorenz, A. Altaf, D. S. Elliott, Y.P. Chen, “Photoassociation of ultracold LiRb* molecules: observation of high efficiency and unitarity-limited rate saturation”, **Phys. Rev. A** 89, 020702(R) (2014)
15. R. He*, T. F. Chung*, ... , Y. P. Chen, “Observation of Low Energy Raman Modes in Twisted Bilayer Graphene”, **Nano Lett.** 13, 3594 (2013)
16. H. Cao, ..., Yong P. Chen, “Quantized Hall effect and Shubnikov--de Haas oscillations in highly doped Bi_2Se_3 : Evidence for layered transport of bulk carriers”, **Phys. Rev. Lett.** 108, 216803 (2012)
17. J. Tian, H. Cao, W. Wu, Q. Yu, Y.P. Chen, “Direct Imaging of Graphene Edges: Atomic Structure and Electronic Scattering”, **Nano Lett.** 11, 3663 (2011)
18. Q. Yu*, L.A. Jauregui*, ... , Yong P. Chen, “Control and characterization of individual grains and grain boundaries in graphene grown by chemical vapour deposition”, **Nature Materials** 10, 415 (2011) [featured on cover]
19. H. Cao, Q. Yu, ..., Y. P. Chen, “Electronic Transport in Chemical Vapor Deposited Graphene Synthesized on Cu: Quantum Hall Effect and Weak Localization”, **Appl. Phys. Lett.** 96, 122106 (2010)
20. Jiuning Hu, Xiulin Ruan, Yong P. Chen, “Thermal conductivity and thermal rectification in graphene nanoribbons: a molecular dynamics study”, **Nano Lett.** 9, 2730 (2009)
21. Q. Yu, J. Lian, S. Siripongert, H. Li, Y.P. Chen, and S-S. Pei, “Graphene segregated on Ni surface and transferred to insulators”, **Appl. Phys. Lett.** 93, 113103 (2008)
22. Y.P. Chen, J. Hitchcock, D. Dries, M. Junker, C. Welford, R.G. Hulet, “Phase coherence and superfluid-insulator transition in a disordered Bose-Einstein condensate”, **Phys. Rev. A** 77, 033632 (2008)
23. Y.P. Chen, ..., L. W. Engel, D. C. Tsui, P. D. Ye, L. N. Pfeiffer, and K. W. West, “Melting of a 2D Quantum Electron Solid in High Magnetic Field”, **Nature Physics** 2, 452 (2006)
24. Y.P. Chen, R. M. Lewis, L. W. Engel, D. C. Tsui et al., “Evidence for Two Different Solid Phases of Two Dimensional Electrons in High Magnetic Fields”, **Phys. Rev. Lett.** 93, 206805 (2004)
25. Yong Chen, R. M. Lewis, L. W. Engel, D. C. Tsui et al., “Microwave Resonance of the 2D Wigner Crystal Around Integer Landau Fillings”, **Phys. Rev. Lett.** 91, 016801 (2003)