TAI CHANG CHIANG

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EDUCATION

- University of California at Berkeley (1973-1978), Ph.D. Physics
- National Taiwan University (1967-1971), B.S. Physics

EMPLOYMENT

- Research/Emeritus Professor (2011-), Professor (1988-2011), Associate Professor (1984-1988), Assistant Professor (1980-1984), Department of Physics, University of Illinois at Urbana-Champaign
- Associate Director (1999-2006), Head, Solid State Sciences and Materials Chemistry Program (1991-2006), Frederick Seitz Materials Research Laboratory, University of Illinois at Urbana-Champaign
- Postdoctoral Research Associate, IBM T. J. Watson Research Center (1978-1980)

HONORARY AND VISITING APPOINTMENTS

- Jade Mountain Scholar, National Tsing Hua University (2021-2023)
- Distinguished Chair, National Taiwan University, Taipei, Taiwan (2007-2010, 2015-2021)
- Distinguished Chair, National Sun Yat-Sen University, Kaohsiung, Taiwan (2018-2021)
- Distinguished Visiting Scholar, National Synchrotron Radiation Research Center, Taiwan (2013-2021)
- Chair Professor, National Chiao-Tung University, Taiwan (2013-2016)
- Visiting Professor, ISSP, University of Tokyo (2016)
- Scientific Director, Synchrotron Radiation Center, University of Wisconsin-Madison (2010-2014)
- Honorary Chair, Tsing Hua University, Hsinchu, cosponsored by National Synchrotron Radiation Research Center (2008-2011)

HONORS AND AWARDS

- Arthur H. Compton Award, Advanced Photon Source, Argonne National Laboratory (2019), for "ingenuity and insight in developing x-ray thermal diffuse scattering into an efficient quantitative method for phonon band structure studies."
- Academician, Academia Sinica, Taiwan (2016-)
- Davisson-Germer Prize, American Physical Society (2015), for "his elegant demonstration of multiple quantum well resonances in metallic thin films achieved by growing films of unprecedented uniformity, and his demonstration and use of quantum effects to understand and control the stability of thin films."
- Outstanding Alumnus, Physics Department, National Taiwan University, sponsored by the Space-time Forum - NTU Physics Alumni Association (2015)
- Outstanding referee, American Physical Society (2008, inaugural group)
- Fellow, American Physical Society (since 1986)

- Xerox Faculty Award, University of Illinois (1985)
- Presidential Young Investigator Award (1984-1989)
- IBM Faculty Development Award, IBM T. J. Watson Research Center (1984 and 1985)

TEACHING EXPERIENCE

Solid State Physics, Surface Physics, Statistical Mechanics and Thermodynamics, Modern Physics Laboratory, and General Physics.

RECENT PROFESSIONAL ACTIVITIES

- International Program Advisory Board, 9th International Symposium on Surface Science (ISSS-9), Japan Society of Vacuum and Surface Science (JVSS), 2019-2020.
- Review Panel, Low Dimensional Structure Probe Beamline at HEPS, Beijing, China (2019).
- DOE review of Advanced Light Source, Lawrence Berkeley National Laboratory (2017).
- DOE review of the Condensed Matter Program at Brookhaven National Laboratory (2017).
- Advisory Committee, Institute of Physics, Academia Sinica, Taiwan (2013-).
- Scientific Advisory Committee (2008-2021) and Steering Committee (2006-2008), Taiwan Photon Source, National Synchrotron Radiation Research Center, Taiwan.
- International Program Advisory Board, Eighth International Symposium on Surface Science (ISSS-8), Tsukuba, Japan (2017).
- Review of the Department of Physics, Tsing Hua University, Taiwan (2015).
- DOE review of Advanced Light Source, Lawrence Berkeley National Laboratory (2014).
- Review of DND-CAT, Advanced Photon Source (2014).
- Chair (2007-2010) & Member (for many years), Users Advisory Committee, Synchrotron Radiation Center, University of Wisconsin-Madison.
- Advisory Board, Hayashi Conference: Next Decades of Surface Science (2013).
- DOE BES Review, Materials Science Program, SLAC, Stanford, CA (2012).
- Chair, Review of Department of Physics, Graduate Institute Physics, Graduate Institute of Applied Physics, and Graduate Institute of Astrophysics, National Taiwan University (May, 2012).
- Co-organizer of Workshop on Science Impact of Free Electron Laser Design Parameter Variation, Madison, WI (February 2012).
- NSF DMR proposal review panel (2012).
- DOE BES Review, Advanced Light Source, Berkeley, CA (2011).
- International Program Advisory Board, International Symposium on Surface Science – Focusing on Nano-, Green, and Bio-technologies, Tokyo, Japan (2011).
- DOE BES Review, Materials Science and Engineering Program, Argonne National Laboratory (2011).
- Spokesperson, Partner User Program on "Studies of Quantum Phase Transitions in Solids by High-Energy-Resolution Inelastic X-ray Scattering (HERIX) at High Pressures and Low Temperatures," Advanced Photon Source (2011-2014).
- Team Leader, upgrade project on "X-ray Interface Science Fixed Angle ID Beamlines," Advanced Photon Source (2011).
- Chair (2003–2008), member (1995-2003), Board of Governors, Interim Director (2003), UNICAT (University, National Lab, and Industry Collaborative Access Team), Advanced

Photon Source, Argonne National Laboratory – in collaboration with ORNL, NIST, and UOP LLC.
- Scientific Advisory Committee, Center for Advanced Microstructures and Devices (CAMD), Baton Rouge, Louisiana (2000-).
- Lecturer, "Surface Scattering and Spectroscopy," National School on Neutron and X-ray Scattering, Argonne National Laboratory (2009 and 2010).
- General User Proposal Review Panel (Condensed Matter), Advanced Photon Source (2006-2008).
- DOE Photon Source Workshop organized by the "New Era" Committee, Science Opportunity Speaker (2008).
- Chair, VUV/Soft X-ray/IR Beamline Review Committee, National Synchrotron Light Source, Brookhaven National Laboratory (2008).
- Lecturer, International Workshop/School on Sub-Ten-Nanometer Wires, JSPS-NSFC-KOSEF A3 Foresight Program, University of Tokyo (2008).
- DOE BES Committee of Visitors, chair of synchrotron sub-group, for a review of the Scientific User Facilities Division (2007).
- DOE BES review of Mid-scale Instrumentation Program (2007).
- Meeting Chair, 67th Physical Electronics Conference (2007).
- International Program Committee, International Conference on Electron Spectroscopy and Structure (France 2012, Japan 2009, and Brazil 2006).
- DOE BES review of Condensed Matter Physics and Scattering Science Programs at Oak Ridge National Laboratory (2006).
- DOE BES review of Nanoscale Science Research Centers (2005).
- Chair, Review Committee, Department of Physics, National Taiwan University (2005).
- Review Committee, DND-CAT, Advanced Photon Source (2005).
- DOE BES review of Sandia and Los Alamos National Laboratories (2004).

HONORS AND AWARDS OF GROUP MEMBERS
- Yang Liu, Best Poster Prize, Users' Meeting, Synchrotron Radiation Center, 2011.
- Guang Bian, Aladdin Lamp Award, Synchrotron Radiation Center, 2010.
- Matthew K. Brinkley, Bardeen Award, Physics Department, University of Illinois, 2010.
- Guang Bian, Best Poster Prize, Users' Meeting, Synchrotron Radiation Center, 2009.
- Yang Liu, Aladdin Lamp Award, Synchrotron Radiation Center, 2008.
- Mary Upton, Aladdin Lamp Award, Synchrotron Radiation Center, 2004.
- Shu-Jung Tang, Best Poster Prize, Users' Meeting, Synchrotron Radiation Center, 2004.
- Jens Paggel, Best Poster Prize, Users' Meeting, Synchrotron Radiation Center, 2002.
- Martin Holt, Best Poster Prize, Users' Meeting, Advanced Photon Source, 2001.
- Tim Kidd, Aladdin Lamp Award, Synchrotron Radiation Center, 2001.
- Dah-An Luh, Aladdin Lamp Award, Synchrotron Radiation Center, 2000.
- T. Miller, G. J. Lapeyre Award, Synchrotron Radiation Center, 1986.

INVITED TALKS (2000-)
1. T. Miller and T.-C. Chiang, "Photoemission lineshapes," APS March Meeting, Minneapolis, MN, March, 2000.

2. T.-C. Chiang, "Quantum well spectroscopy and electron interferometery using atomically uniform films," Department of Physics, National Taiwan University, Taipei, Taiwan, March, 2000.
3. T.-C. Chiang, "Quantum well spectroscopy and electron interferometery using atomically uniform films," Department of Physics, University of Rochester, Rochester, NY, April, 2000.
4. T. Miller and T.-C. Chiang, "Quantum well spectroscopy," Eighth International Conference on Electronic Spectroscopy and Structure, Berkeley, CA, August, 2000.
5. T.-C. Chiang, "Derivative methods of photoelectron holography," International Workshop on Holography, Hong Kong, August, 2000.
6. T.-C. Chiang, "Quantum wells and phonons," Users Meeting, MAX Lab, Lund, Sweden, September, 2000.
7. D.-A. Luh, T. Miller, and T.-C. Chiang, "Derivative photoelectron holography," Users Meeting, Synchrotron Radiation Center, Stoughton, WI, October, 2000.
8. T.-C. Chiang, "Photoemission in solids," Centenary Meeting - 100 Years of Quantum Theory, German Physical Society, Berlin, Germany, December, 2000.
9. T.-C. Chiang, "Materials research with synchrotron radiation," Symposium on the Interface between Physics and Industry, Taipei, Taiwan, December, 2000.
10. T.-C. Chiang, "Photoelectron Holography," Department of Physics, National Taiwan University, Taipei, Taiwan, January, 2001.
11. T.-C. Chiang, "Fermi Surfaces and Energy Gaps in Sn/Ge(111)," APS March Meeting, Seattle, WA, March, 2001.
12. T.-C. Chiang, "Quasiparticle Lifetimes Determined by Photoemission," International Workshop on Electron Surface Dynamics, San Sebastian, Spain, July, 2001.
13. T. Miller and T.-C. Chiang, "Electronic Structure and Quantum Stability of Uniform Metallic Films," Synchrotron Radiation Center User's Meeting, Stoughton, Wisconsin, October, 2001.
14. T.-C. Chiang, "Phonon Softening Associated with Charge Density Wave Transitions," DOE/BES Program Review of the Advanced Photon Source, Argonne National Laboratory, October, 2001.
15. T.-C. Chiang, "Quantum Electronic Structure of Atomically Uniform Films," Colloquium, Department of Physics and Ames Laboratory, Iowa State University, November, 2001.
16. T. Miller and T.-C. Chiang, "Quantum Size Effects in Atomically Uniform Films," APS March Meeting, Indianapolis, Indiana, March, 2002.
17. T.-C. Chiang and T. Miller, "Quantum Well Effects on Film Stability," European Materials Research Society Meeting, Strasbourg, France, June, 2002.
18. T.-C. Chiang, "Diffuse Scattering Studies of Phonon Dispersion Relations and Phase Transitions," XIX Congress and General Assembly of the International Union of Crystallography, Geneva, Switzerland, August, 2002.
19. T.-C. Chiang, "Large Electron-Phonon Coupling at an Interface," International Workshop on Electron-Phonon Effects in Nanosystems, Long Island, New York, September, 2002.
20. J. J. Paggel and T.-C. Chiang, "Photoemission from electronic quantum well states in uniform thin Ag films," Workshop on Future Scientific Opportunities with Ultra-high Resolution Soft X-rays, Advanced Light Source, Berkeley, California, October, 2002.
21. J. J. Paggel, T. Miller, and T.-C. Chiang, "Quantum Oscillations in the Work Function of Atomically Uniform Films: Theory and Experiment for Ag/Fe(100)," Synchrotron Radiation Center Users' Meeting, Stoughton, Wisconsin, October, 2002.
22. T. Miller and T.-C. Chiang, "Electron-Phonon Interaction in Quantum Wells," Workshop on

Electron-Phonon Interactions, Synchrotron Radiation Center, Stoughton, Wisconsin, October, 2002.

23. T.-C. Chiang, "Quantum Well States and Their Interaction with Phonons," Symposium on Novel Properties of Nano-Materials, Taipei, Taiwan, December, 2002.
24. T.-C. Chiang, "Nanoscale Stability, Morphology, and Electron-Lattice Coupling," Symposium on Novel Properties of Nano-Materials, Taipei, Taiwan, December, 2002.
25. T.-C. Chiang, "Quantum Well States and Their Interaction with Phonons," Institute of Physics, National Chiao-Tung University, Hsinchu, Taiwan, December, 2002.
26. T.-C. Chiang, "Nanoscale Stability, Morphology, and Electron-Lattice Coupling," Synchrotron Radiation Research Center, Hsinchu, Taiwan, December, 2002.
27. T.-C. Chiang, "Electron-Phonon Interaction in Quantum Wells," APS March Meeting, Austin, TX, March, 2003.
28. T.-C. Chiang, "Quantum Effects in Thin Metallic Films," Bradley University, April, 2003.
29. T. Miller and T.-C. Chiang, "Exploring 'Simple' Quantum Mechanics in Thin Metallic Films," University of Wisconsin-Oshkosh, April 2003.
30. Peter Czoschke and T.-C. Chiang, "Structural Quantum Size Effects in Pb/Si(111)," National School on Neutron and X-ray Scattering Alumni Workshop, Advanced Photon Source, April, 2003.
31. T.-C. Chiang, "Quantum Effects in Atomically Uniform Films," Brookhaven National Laboratory, July, 2003.
32. T. Miller and T.-C. Chiang, "Effects of Quantization on the Physical Properties of Atomically-Uniform Films," APS March Meeting, Montreal, Quebec, Canada, March, 2004.
33. T. Kidd and T.-C. Chiang, "Electron hole coupling and the charge density wave transition in $TiSe_2$," APS March Meeting, Montreal, Quebec, Canada, March, 2004.
34. T.-C. Chiang, "An Inelastic X-ray Scattering Facility for f-Electron Materials Research," Workshop on Inelastic X-ray Scattering, Advanced Photon Source, May, 2004.
35. T.-C. Chiang, "Quantum Wells and Quantum Oscillations in Thin Films," International Conference on Physics Education and Frontier Research, Shanghai, July, 2004.
36. T.-C. Chiang, "Quantum Electronic Structure in Films," Zhong-Guan-Cun Forum, Chinese Academy of Sciences, Beijing, July, 2004.
37. T.-C. Chiang, "Quantum Effects in Atomically Uniform Films," Institute of Physics, Academia Sinica, Taipei, August, 2004.
38. T.-C. Chiang, "Quantum Confinement by Schottky Barriers," APS March Meeting, Los Angeles, CA, March, 2005.
39. T. Miller and T.-C. Chiang, "Quantum Electronic Properties of Nanoscale Thin Films Explored Using Angle-Resolved Photoemission," International Workshop on New Frontiers in Angle-Resolved Photoemission Spectroscopy, University of British Columbia, April, 2005.
40. T.-C. Chiang, "Effects of Quantum Confinement in Thin Films," Workshop on Spectroscopic studies of Nanoscale Systems, Brookhaven National Laboratory, May, 2005.
41. T.-C. Chiang, Plenary lecture, "Electronic Effects in Atomically Uniform Films," European Physical Society, July, 2005.
42. T.-C. Chiang, "Quantum Effects on Thin Film Growth, Structure, and Properties," Workshop on In-Situ Characterization of Surface and Interface Structures and Processes, Argonne National Laboratory, September, 2005.
43. T.-C. Chiang, "Quantum Effects on Thin Film Growth, Structure, and Properties," Computational Materials Science Network Meeting, Madison, Wisconsin, October, 2005.

44. T. Miller and T.-C. Chiang, "Quantum Electronic Structure of Atomically Uniform Films," Synchrotron Radiation Center, Stoughton, Wisconsin, October, 2005.
45. T.-C. Chiang, "Quantum Effects on Thin Film Structure and Properties," Columbia University, February, 2006.
46. T.-C. Chiang, "Electronic Effects on Thin Film Structure and Properties," Arizona State University, March, 2006.
47. T.-C. Chiang, "X-ray Studies of Phonons and Phase Transitions," Purdue University, March, 2006.
48. T.-C. Chiang, "X-Ray Diffuse Scattering Studies of Phonons and Phase Transitions," Workshop on Diffuse Scattering: Emerging Opportunities with Advanced X-ray and Neutron Sources, Argonne National Laboratory, May, 2006.
49. T.-C. Chiang, "X-ray Studies of Phonons and Phase Transitions," National Synchrotron Radiation Research Center, Taiwan, June, 2006.
50. T.-C. Chiang, "X-ray Studies of Phonons and Phase Transitions," Department of Physics, University of Illinois at Urbana-Champaign, September, 2006.
51. T.-C. Chiang, "Interfacial Effects on Films and Surface Nanostructures," Meeting of DOE-sponsored CMSN (Computational Materials Science Network) on "Multiscale Studies of the Formation and Stability of Surface-Based Nanostructures," College Park, Maryland, October, 2006.
52. T.-C. Chiang, "Quantum Physics of Films and Surface Nanostructures," Workshop on the Physics and Chemistry of Metallic Thin Films, Hong Kong, November, 2006.
53. T.-C. Chiang, "Quantum Size Effects in Thin Films," Chinese Physical Society Meeting, Taoyuang, Taiwan January, 2007.
54. T. Miller and T.-C. Chiang, "Quasiparticles and Many-Body Interactions in Quantum Wells," APS March Meeting, Denver, Colorado, March, 2007.
55. T.-C. Chiang, "Quantum Physics of Surface Nanostructures," China-Nano-2007 International Conference, Beijing, China, June, 2007.
56. T.-C. Chiang, "Quantum Physics of Thin Films," Jiaotong University, Xi'an, China, June, 2007.
57. T.-C. Chiang, "X-Ray Scattering Studies of Phonons and Phase Transitions," Canadian Light Source, Saskatoon, Canada, July, 2007.
58. T.-C. Chiang, "Electronically Driven Self Assembly," DOE CMSN Meeting, Ames Laboratory, Ames, Iowa, October, 2007.
59. T.-C. Chiang, "Applications of Free Electron Lasers to Photoemission," Synchrotron Radiation Center, Stoughton, WI, October, 2007.
60. T.-C. Chiang, "Quantum Physics of Thin Films," DOE X-ray and Neutron Scattering Contractors' Meeting, Warrenton, VA, October, 2007.
61. T.-C. Chiang, "Scientific Applications of Free Electron Lasers," National Synchrotron Radiation Research Center, Taiwan, January, 2008.
62. T.-C. Chiang, "Quantum Physics of Thin Films," National Tsing Hua University, Taiwan, January, 2008.
63. T.-C. Chiang, "X-Ray Scattering Studies of Phonons and Phase Transitions," National Tsing Hua University, Taiwan, January, 2008.
64. T.-C. Chiang, "Advances in Photoemission at a Next-Generation Light Source," Workshop on "Enabling Grand Challenge Science: The Light Source of the Future," CAMD, Louisiana State University, Baton Rouge, January, 2008.

65. T.-C. Chiang, "X-Ray Scattering Studies of Phonons and Phase Transitions," TMS Annual Meeting, New Orleans, March, 2008.
66. T.-C. Chiang, "Thin Film Electronic Structure: Beyond the Particle in a Box," Institute of Solid State Physics, University of Tokyo, May, 2008.
67. T.-C. Chiang, "Quantum Physics of Thin Metal Films," 4 lectures, 90 minutes each, at the International Workshop/School on Sub-Ten-Nanometer Wires, JSPS-NSFC-KOSEF A3 Foresight Program, University of Tokyo, May, 2008.
68. T.-C. Chiang, "Thin Film Electronic Structure: Beyond the Particle in a Box," European Conference on Surface Science, Liverpool, England, July, 2008.
69. T.-C. Chiang, "Novel Thin Film Electronic Structure for Energy Applications," DOE CMSN Meeting, Gatlinburg, Tennessee, October, 2008.
70. T.-C. Chiang, "Advances in Photoemission through the First- to the Fourth-Generation Light Sources," National Tsing Hua University, Hsinchu, Taiwan, January, 2009.
71. T.-C. Chiang, "Mapping Phonon Dispersion Relations by Momentum-Resolved X-Ray Calorimetry," Symposium on Crystallography, Taipei, Taiwan, January, 2009.
72. T.-C. Chiang, "Surface Scattering and Spectroscopy," two lectures at the National School on Neutron and X-ray Scattering, Argonne National Laboratory, June, 2009.
73. T.-C. Chiang, "X-Ray Thermal Diffuse Scattering for Materials Research", Workshop on Diffuse Scattering, European Synchrotron Radiation Facility, Grenoble, France, June 2009.
74. T.-C. Chiang, "Quantum Size Effects in Metal Thin Films: Electronic Structure, Stability, Superconductivity, and Pseudogaps," American Chemical Society Meeting, Washington DC, August, 2009.
75. T.-C. Chiang, "Quantum Size Effects in Thin Films – Electronic Structure, Stability, Superconductivity, and Pseudogaps," Users' Meeting, Synchrotron Radiation Center, Stoughton, WI, October, 2009.
76. T.-C. Chiang, " Quantum Size Effects in Thin Films – Stability, Work Function, Superconductivity, and Pseudogap Structure," Physics Department, Michigan State University, East Lansing, MI, November, 2009.
77. T.-C. Chiang, "Quantum Size Effects in Thin Films – Stability, Work Function, Superconductivity, and Pseudogap Structure," Physics Department, National Tsing Hua University, Hsinchu, Taiwan, January, 2010.
78. T.-C. Chiang, "X-ray Diffuse Scattering Studies of Materials and Phase Transitions," TMS Meeting, Seattle, Washington, February, 2010.
79. Hawoong Hong, Aaron Gray, and T.-C. Chiang, "Real Time Reciprocal Space Mapping of Nano-Islands Induced by Quantum Confinement," TMS Meeting, Seattle, Washington, February, 2010.
80. T.-C. Chiang, "Quantum Size Effects in Metal Thin Films: Electronic Structure, Stability, Superconductivity, and Pseudogaps," Colloquium, Physics Department, Iowa State University, Ames, IA, February, 2010.
81. T.-C. Chiang, "One-Dimensional Shell Effects in Thin Metal Films," American Physical Society March Meeting, Portland, OR, March, 2010.
82. T.-C. Chiang, "Quantum Size Effects in Metal Thin Films: Electronic Structure, Stability, Superconductivity, and Pseudogaps," Colloquium, School of Physics, Georgia Tech, Atlanta, GA, May, 2010.
83. T.-C. Chiang, "Quantum Size Effects in Thin Films – Electronic States, Stability, Superconductivity, and Pseudogaps," Colloquium, Department of Physics, University of

Illinois, September, 2010.

84. T.-C. Chiang, "Quantum and Atomistic Effects in Thin Film Growth," Advanced Photon Source, Argonne National Laboratory, Argonne, IL, October, 2010.
85. T.-C. Chiang, "Transformational Science at the Synchrotron Radiation Center," Users' Meeting, Synchrotron Radiation Center, University of Wisconsin-Madison, Stoughton, WI, October, 2010.
86. T.-C. Chiang, "Quantum Size Effects in Thin Films – Electronic States, Stability, Superconductivity, and Pseudogaps," Colloquium, Los Alamos National Laboratory, January, 2011.
87. T.-Chiang, "Quantum Size Effects in Thin Films – Electronic States, Stability, Superconductivity, and Pseudogaps," Institute of Atomic and Molecular Sciences, Academic Sinica, Taipei, February, 2011.
88. T.-C. Chiang, "Mapping Phonon Dispersion Relations and Anomalies with X-ray Scattering," Argonne National Laboratory, February, 2011.
89. T.-C. Chiang, Ruqing Xu, Mary Upton, and Hawoong Hong, "X-ray Studies of the Lattice Dynamics of Cr across Its Antiferromagnetic Transition," TMS Meeting, San Diego, CA, March, 2011.
90. T.-C. Chiang, "Scientific Case for X-ray Interface Science Fixed Angle ID Beamlines," Advanced Photon Source, Argonne National Laboratory, March, 2011.
91. T.-C. Chiang, "X-ray Studies of Phonon Anomalies and Phase Transitions," IXS Workshop, Advanced Photon Source, Argonne National Laboratory, May, 2011.
92. T.-C. Chiang, "From the Photoelectric Effect to Modern Photoemission Spectroscopy," Colloquium, National Taiwan University, Taipei, Taiwan, April 2012.
93. T.-C. Chiang, "Topological Surfaces, Interfaces, and Films," Institute of Physics, Academia Sinica, Taipei, Taiwan, April 2012.
94. T.-C. Chiang, "Topological Surfaces, Interfaces, and Films," Institute of Atomic and Molecular Sciences, Academia Sinica, Taipei, Taiwan, April 2012.
95. T.-C. Chiang, Plenary Lecture, "Topological Surfaces, Interfaces, and Films," 6th International Conference on Advanced Materials and Nanotechnology, Auckland, New Zealand, February 2013.
96. T.-C. Chiang, "Scientific Case for a Seeded Free Electron Laser," National Chiao Tung University, Hsin Chu, Taiwan, February 2013.
97. T.-C. Chiang, "Angle-Resolved Photoemission Spectroscopy as a Powerful Probe of the Electronic Structure of Materials," plenary lecture, National Chiao Tung University, Hsin Chu, Taiwan, February 2013
98. T.-C. Chiang, "Topological Surfaces, Interfaces, and Films," 17th Hiroshima International Symposium on Synchrotron Radiation, Higashi-Hiroshima, Japan, February 2013.
99. Ruqing Xu (presenter) and T.-C. Chiang, "Rigorous Simulation of X-Ray Thermal Diffuse Scattering," TMS Meeting, San Antonio, Texas, March 2013.
100. T.-Chiang, "Scientific Case for a Seeded Free Electron Laser Facility," Institute of Physics, Academia Sinica, Taipei, Taiwan, March 2013.
101. T.-Chiang, "Topological Surfaces, Interfaces, and Films," Institute of Atomic and Molecular Sciences, Academia Sinica, Taipei, Taiwan, March 2013.
102. T.-Chiang, "Scientific Case for a Seeded Free Electron Laser Facility," Institute of Atomic and Molecular Sciences, Academia Sinica, Taipei, Taiwan, March 2013.

103. T.-C. Chiang, "Topological Surfaces, Interfaces, and Thin Films," Workshop on 2D Novel Material Growth and Physical Properties, Yang-Ming Mountain, Taiwan, June 2013.
104. T.-C. Chiang, "Science Drivers for a Seeded Free Electron Laser Facility," National Synchrotron Radiation Research Center, Hsinchu, Taiwan, June 2013.
105. T.-C. Chiang, "Topological Surfaces, Interfaces, and Thin Films," National Synchrotron Radiation Research Center, Hsinchu, Taiwan, June 2013.
106. T.-C. Chiang, "Topological Surfaces, Interfaces, and Thin Films," Keynote Speaker, 1st Hayashi Conference: Next Decades of Surface Science, Hayama, Japan, July 2013.
107. T.-C. Chiang, "Topological Surfaces, Interfaces, and Thin Films," International Workshop on Strong Correlations and Angle-Resolved Photoemission Spectroscopy, Hamburg, Germany, July 2013.
108. T.-C. Chiang, "Science Drivers for a Seeded Free Electron Laser Facility," The 6th International Workshop on FEL Science: New Horizon of XFEL Science, Tainen, Taiwan, November 2013.
109. T.-C. Chiang, "Topological Surfaces, Interfaces, and Films," Department of Physics, National Cheng Kung University, Tainen, Taiwan, November 2013.
110. T.-C. Chiang, "Synchrotron Radiation Center: Past, Present, and Future," Meeting of the National Science Foundation Mathematical and Physical Sciences Advisory-Committee Subcommittee on the Role of NSF MPS/DMR in Synchrotron Science, Washington DC, January 2014.
111. T.-C. Chiang, "Topological Surfaces, Interfaces, and Films," colloquium, Argonne National Laboratory, Lemont, Illinois, January 2014.
112. T.-C. Chiang, "Free Electron Laser Science Opportunities and Challenges," Second Free Electron Laser Winter School, National Synchrotron Radiation Research Center, Hsinchu, Taiwan, February 2014.
113. T.-C. Chiang, "Topological Surfaces, Interfaces, and Films," American Physical Society March Meeting, Denver, Colorado, March 2014.
114. T.-C. Chiang, "Ultrathin Topological Films," 74th Physical Electronics Conference, University of Wisconsin-La Crosse, Wisconsin, June 2014.
115. T.-C. Chiang, "Topological Surfaces, Interfaces, and Films," Department of Chemistry and Physics, Indiana State University, Terre Haute, Indiana, November 2014.
116. T.-C. Chiang, "Davisson-Germer Prize Talk: Atomically Uniform Thin Films as Quantum Wells and Device Components, American Physical Society March Meeting, Austin, TX, March 2015.
117. T.-C. Chiang, "Scientific Opportunities with Angle-Resolved Photoemission Spectroscopy at the Nanoscale," National Synchrotron Radiation Research Center, Hsinchu, Taiwan, April 2015.
118. T.-C. Chiang, "Atomically Uniform Thin Films as Quantum Wells and Device Components," National Tsing Hua University, Hsinchu, Taiwan, April 2015.
119. T.-C. Chiang, "Scientific advances at Tantalus, world's first dedicated synchrotron radiation facility, and beyond," colloquium for the event of dedication of Tantalus as a historical site by the American Physical Society, Madison, Wisconsin, November 2015.
120. T.-C. Chiang, "Charge density wave transition in single-layer $TiSe_2$," Surface Science Society of Japan 1st Kanto Branch Meeting, Tokyo, Japan, April 2016.
121. T.-C. Chiang, "Exotic properties of single-layer materials," Introductory Workshop, Institute of Solid State Physics, University of Tokyo, Kashiwa, Japan, April 2016.

122. T.-C. Chiang, "Charge density wave transition in single-layer TiSe2," Institute of Physics, Academia Sinica, Taipei, Taiwan, May 2016.
123. T.-C. Chiang, "Charge density waves (CDWs) in single-layer, multilayer, and bulk titanium diselenide – dimensional/confinement effects and the physics of CDWs," National Synchrotron Radiation Research Center, Hsinchu, Taiwan, May 2016.
124. T.-C. Chiang, "Charge density waves (CDWs) in single-layer, multilayer, and bulk titanium diselenide – dimensional/confinement effects and the physics of CDWs," Institute of Solid State Physics, University of Tokyo, Kashiwa, Japan, May 2016.
125. T.-C. Chiang, "Charge density waves (CDWs) in single-layer, multilayer, and bulk titanium diselenide – dimensional/confinement effects and the physics of CDWs," Department of Physics, University of Tokyo, Tokyo, Japan, May 2016.
126. T.-C. Chiang, "Charge density waves (CDWs) in single-layer, multilayer, and bulk titanium diselenide – dimensional/confinement effects and the physics of CDWs," Department of Advanced Materials Science, Graduate School of Frontier Sciences, University of Tokyo, Kashiwa, Japan, June 2016.
127. T.-C. Chiang, "Charge density waves (CDWs) in single-layer, multilayer, and bulk titanium diselenide – dimensional/confinement effects and the physics of CDWs," International Center for Materials nanoarchitectonics, National Institute for Materials Science, Tsukuba, Japan, June 2016.
128. T.-C. Chiang, "Charge density waves (CDWs) in ultrathin films - dimensional and confinement effects and the physics of CDWs in single-layer, multiplayer, and bulk $TiSe_2$," O. M. Stewart Colloquium, Department of Physics, University of Missouri, Columbia, MO, September 2016.
129. T.-C. Chiang, "Electronic effects and phenomena in ultrathin films," Keynote Speech, National Synchrotron Radiation Research Center Users' Meeting and Workshops, Hsinchu, Taiwan, September 2016.
130. T.-C. Chiang, "Spectroscopy and diffraction studies of charge density waves in ultrathin films," Advance Light Source Users' Meeting and Workshops, Berkeley, CA, October 2016.
131. T.-C. Chiang, "Dave Lynch and the Synchrotron Radiation Center," colloquium, Department of Physics, Iowa State University, Ames, IA, November 2016.
132. T.-C. Chiang, "Charge density waves in ultrathin films," colloquium, Department of Physics, National Tsing Hua University, Hisnchu, Taiwan, November 2016.
133. T.-C. Chiang, "Atomically uniform thin films as quantum wells and device components," Powerchip Corp, Hsinchu, Taiwan, November 2016.
134. T.-C. Chiang, " Quantum electronic effects in ultrathin films," in celebration of the 70^{th} Anniversary of the Department of Physics, National Taiwan University, Taipei, Taiwan, November 2016.
135. T.-C. Chiang, "Novel electronic effects in atomically uniform ultrathin films," Colloquium, Department of Physics, National Taiwan University, Taipei, Taiwan, November 2016.
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137. T.-C. Chiang, "Charge density waves in ultrathin films – dimensional and confinement effects," Seminar, Department of Physics, National Taiwan University, Taipei, Taiwan, December 2016.
138. T.-C. Chiang, "Charge density waves in ultrathin films – dimensional and confinement effects," Plenary Talk, Annual Meeting of the Physical Society of the Republic of China,

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140. T.-C. Chiang, "Novel Properties of Single Layers of Transition Metal Dichalcogenides," 2017 Mini Workshop, Institute of Physics, Academia Sinica, Taipei, Taiwan, August 2017.
141. T-C.Chiang, "Novel Properties of Single Layers, Ultrathin Films, Composites, and Functional Systems," Advanced Light Source Quantum Materials Cross-Cutting Review and Workshop, January 2018.
142. T.-C. Chiang, "Playing with Topological Insulators: Superconductivity and Strain Effects," Department of Physics, National Sun Yat-Sen University, Kaoshiung, Taiwan, February 2018.
143. T.-C. Chiang, "Playing with Topological Insulators: Superconductivity and Strain Effects," Colloquium, Zhejiang University, China, April, 2018.
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152. T.-C. Chiang, "Playing with Topological Insulators: Superconductivity and Strain Effects," Institute of Atomic and Molecular Sciences, Academia Sinica, Taipei, Taiwan, Nov, 2018.
153. T.-C. Chiang, "Recent and Proposed Experiments at Free Electron Lasers," Winter School of Free Electron Lasers, National Synchrotron Radiation Research Center, Hsinchu, Taiwan, January, 2019.
154. T.-C. Chiang, "Novel Properties of Single Layers of Transition Metal Dichalcogenides," School of Physics, Peking University, Beijing, China, January, 2019.
155. T.-C. Chiang, "Realization of an elemental topological Dirac Semimetal," American Physical Society March Meeting, Boston, March, 2019.
156. T.-C. Chiang, "X-ray Thermal Diffuse Scattering: History, Advances, and Opportunities," Compton Award presentation at the annual Advanced Photon Source Users' Meeting, Argonne National Laboratory, May, 2019.
157. T.-C. Chiang, " Playing with Topological Insulators: Superconductivity and Strain Effects," Workshop on Topological Information Science, Argonne National Laboratory, May, 2019.

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(*Invited or based on invited talks)

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