TONY F. HEINZ

Professor of Applied Physics, Photon Science, and, by courtesy, of EE http://heinz.stanford.edu
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Education

B.S. Physics (with Distinction), Stanford University, 1978
Ph.D., Physics, University of California, Berkeley, 1982

Professional Experience

Stanford University and SLAC National Accelerator Laboratory:
Professor of Applied Physics, Photon Science, and, by courtesy, of Electrical Eng., Stanford, 2015 -
Associate Laboratory Director for Energy Sciences, SLAC, 2017 - 2022
Director, Chemical Science Division, SLAC, 2015 – 2019
Columbia University:
Professor of Physics and Electrical Engineering, 1995 - 2000, David Rickey Professor, 2001 – 2014
Chair, Dept. of Electrical Engineering, 2003 - 2007
IBM Research Division, T. J. Watson Research Center, Yorktown Heights, NY:
Research Staff, 1983 – 87; Dept. Manager, 1987 – 93; Senior Department Manager, 1993 - 95

Honors

Levine Award for Outstanding Studies in Physics, Stanford University, 1978
National Science Foundation Graduate Fellow, UC Berkeley, 1978 - 81
IBM Graduate Fellow, University of California, Berkeley, 1982 - 83
IBM Outstanding Technical Achievement Award, 1992, and Invention Award, 1994
International Commission for Optics Prize; Ernst Abbe Medal, 1995
Alexander von Humboldt Research Award, Germany, 1996
Great Teacher Award, Columbia University, 2005
Julius Springer Prize for Applied Physics (with Phaedon Avouris), 2008
Frank Isakson Prize, American Physical Society, 2014
Gordon and Betty Moore Foundation EQiPS Investigator, 2014-2019, 2020-2024
Clarivate Citation Laureate in Physics, 2019
William F. Meggers Award, Optical Society of America, 2020
Medard Welch Award, American Vacuum Society, 2021
Arthur L. Schawlow Prize in Laser Science, American Physical Society, 2022
IEEE NTC Pioneer Award in Nanotechnology, 2024
ACS Ahmed Zewail Award in Ultrafast Science and Technology, 2025
Fellow: American Physical Society, American Vacuum Society, IEEE, Optica, MRS, AAAS, NAS

Selected Professional Activities

Editor, *Journal of the Optical Society of America B* (JOSA B), 1994 - 2000
Chair, Review Panel, NIST Optical Technology Division, Physics Laboratory, 2000-2005
Chair, Division of Laser Science of the American Physical Society, 2001-2
Chair, Quantum Electronics and Laser Science Conference, QELS, 1995
Chair, International Conference on Quantum Electronics, IQEC, 2002
Chair, Board of Editors, Optical Society of America, 2005 - 2009
Chair, Gordon Conference on Ultrafast Dynamics of Cooperative Phenomena, 2010
Scientific Director, NSF Nanoscale Science & Engineering Center at Columbia, 2006 – 2012
Scientific Director, DOE Energy Frontier Research Center at Columbia, EFRC, 2009 – 2014
President, Optical Society of America, 2012
Chair, Scientific Advisory Board, Center for Integrated Nanotechnology, CINT, Sandia-LLNL, 2011-2016
Chair, Subcommittee on Optics and Photonics, NSF Dir. of Math and Physical Science, 2013- 2015
Founding Editor, North America, *2D Materials* journal 2014-2017; Editorial Board 2018 -
Co-Chair, DOE Roundtable on Frontiers of Ultrafast X-ray Science, 2016-17
Scientific Advisory Boards: Institute of Science and Technology, Austria, 2013-, Fritz-Haber Institute, Berlin, 2014-; Max-Born Institute, Berlin, 2014-; and many national programs

Publications: >330 papers in refereed journals; >111,000 total citations; >8,600 citations in 2023
H-index 134 (Google scholar)
Clarivate highly cited author in physics, 2015 – 2024; Citation Laureate in Physics, 2019 (one of three)

Patents: 20 US patents issued

SELECTED PROFESSIONAL ACTIVITIES FOR TONY F. HEINZ

- Topical Editor, *Journal of the Optical Society of America B: Optical Physics,* 1987-1993
- Program Committee, International Quantum Electronics Conference (IQEC), 1987, 1988, 1990, 1998, 2000
- Program Committee, Quantum Electronics & Laser Science Conference (QELS), 1989, 1991, 1992, 2007
- Review Board, National Science and Engineering Council of Canada, 1991-94
- Program Committee, Int'l Conference on Coherent and Nonlinear Optics, 1991, 1995, 1997, 1999
- Program Committee, Optical Society of America Annual Meeting, 1992, 1994, 1998
- Program Chair, Quantum Electronics and Laser Science Conference, 1993
- Program Committee, Interdisciplinary Laser Science Conference, 1993
- Review Panel, Materials Science Program, US Department of Energy, 1993
- Visiting Professor, Technical University of Vienna, Austria, 1994
- Symposium Organizer, Materials Research Society, 1994
- Committee on Atomic, Molecular and Optical Physics, National Research Council, 1994-97
- Editor, *Journal of the Optical Society of America B: Optical Physics,* 1994-2000
- General Chair, Quantum Electronics and Laser Science Conference, 1995
- Chair, Joint Council on Quantum Electronics of IEEE/OSA/APS, 1995-98
- Organizer, International Workshop on Nonlinear Optics of Semiconductor Surfaces, Garching, Germany, 1996.
- Chair, Optical Sciences Division, Optical Society of America, 1996-98
- Advisory Board, Gordon Conf. on Molecular Electronic Spectroscopy & Dynamics, 1996, 1998
- Chair, Faculty Search Committee for Condensed Matter Physics, Columbia University, 1996-98; 2000-01
- Review Panel, Los Alamos National Laboratory, 1998, 2001
- Board of Directors, Optical Society of America, 1998-2001; 2001-2004; 2006-2009

- Program Committee, The Eighth International Workshop on Desorption Induced by Electronic Transitions DIET, 1999

- Chair, Graduate Admission Committee, Dept. of Physics, Columbia University, 1999-2000, 2001-02

- Review Panel, Physics Laboratory, National Institute of Science and Technology NIST, Gaithersburg, MD, 1999-2005

- Program Co-Chair, OSA Nonlinear Optics 2000 Conference

- Chair Elect, Division of Laser Science, American Physical Society, 2000

- Symposium Organizer, March Meeting of the American Physical Society, 2000

- Director, Adriatico Symposium on Laser Applications in Surface Science, International Center for Theoretical Physics, 2000

- Chair, Technical Council, Optical Society of America, 2000-2001

- Frank Isakson Prize Selection Committee, American Physical Society, 2000-2002

- Vice-Chair, Division of Laser Science, American Physical Society, 2001

- Frederick Ives Prize Selection Committee, Optical Society of America, 2001-2003

- Executive Committee, NSF Columbia Nanoscale Science and Engineering Center (NSEC), Columbia University, 2001 – 2012

- Program Committee, IEEE Lasers and Electro-Optics Conference, LEOS 2001, 2002, 2003, 2004, 2005, 2006. 2007, 2008, 2009, 2010

- Chair, Division of Laser Science, American Physical Society, 2002

- General Co-Chair, OSA Nonlinear Optics 2002 Conference

- Program Co-Chair, International Quantum Electronics Conference (IQEC), 2002

- Program Committee, Ultrafast Optics Conference, 2002, 2005

- Chair, Department of Electrical Engineering, Columbia University, 2003-2007

- Tenure Review Advisory Committee, Columbia University, 2004-2007

- Great Teacher Award of the Society of Columbia Graduates, Columbia University, 2005

- Sub-Panel Chair, Department of Energy Workshop on Solar Energy, 2005

- Co-Chair, International Conference on Coherent and Nonlinear Optics ICONO, St. Petersburg, Russia, 2005

- Program Committee, Seventh International Conference on the Science and Application of Nanotubes, Nagano, Japan, 2006

- Co-Chair, Workshop on Nanostructure Interfaces, Brookhaven National Lab, 2006

- Chair, Diversity Faculty Search, Dept. of Physics, Columbia University, 2006-2007

- Chair, Board of Editors, Optical Society of America, 2005-2009

- External Advisory Committee, Institute of Physics, Beijing, 2006-2009

- Co-Organizer, DOE Materials Council Study on Ultrafast Material Science, 2007

- Scientific co-Director (with Ron Breslow), NSF Nanoscale Science and Engineering Center NSEC, Columbia University, 2007 – 2012. (Budget: $16 M)

- Chair, Faculty Search Committee, Dept. of Electrical Engineering, Columbia University, 2007-2009, 2010 – 2011

- Provost's Diversity Committee, Columbia University 2007-2009

- Member, Publications Ethics Review Committee, Optical Society of America, 2007-2010

- Science Advisory Committee, National Synchrotron Light Source, Brookhaven National Laboratory, 2007-2011

- Advisory Board, Department of Electrical and Computer Engineering, Rice Univ., 2007-2012

- External Review Board, Nanoscience Program, Jülich Laboratory of the Frauenhofer Society, Germany, 2008

- Program Committee, Ninth International Conference on the Science and Application of Nanotubes, Montpellier, France, 2008

- Co-Organizer, APS March Meeting Focus Session on Nanotubes and Related Materials, New Orleans, LA 2008

- Vice-Chair, Gordon Conference on Ultrafast Dynamics of Cooperative Systems, 2008

- Program Committee, Conference on Ultrafast Surface Dynamics, Kloster Banz, Germany, 2008

- External Review Board, Munich Photonics Center of Excellence, Munich, Germany, 2008 –

- Provost's Science Planning and Review Committee, Columbia University, 2008-2009

- Search Committee for Provost, Columbia University, 2008-2009

- Co-Organizer, APS March Meeting Focus Session on Nanotubes and Related Materials, Pittsburgh, PA 2009

- Program Committee, Tenth International Conference on the Science and Application of Nanotubes, Beijing, China, 2009

- Scientific co-Director (with Louis Brus), DOE Energy Frontier Research Center EFRC, Columbia University, 2009-2014 (Budget: $18M)

- Program Committee, International Winter School on Electronic Properties of Novel Materials, 2009, 2011, 2012, 2014, 2015, 2016, 2018

- Chair, Gordon Conference on Ultrafast Dynamics of Cooperative Systems, 2010

- Program Committee, Graphene Symposium for Eleventh International Conference on the Science and Application of Nanotubes, Montreal, Canada, 2010

- Vice President, Optical Society of America, 2010

- President Elect, Optical Society of America, 2011

- Program Committee, Graphene 2011, Bilbao, Spain, 2011

- Advisory Board, Twelfth International Conference on the Science and Application of Nanotubes, Cambridge, England, 2011

- Program Committee, International Winter School on Electronic Properties of Novel Materials, 2011

- Visiting Professor, École Polytechnique Fédérale de Lausanne EPFL, Switzerland, 2011.

- Chair, Scientific Advisory Board, Center for Integrated Nanotechnologies, CINT, Los Alamos National Laboratory – Sandia National Laboratories, 2011 – 2016

- President, Optical Society of America, 2012

- Advisory Board, Thirteenth International Conference on the Science and Application of Nanotubes, Brisbane, Australia, 2012

- Search Committee for Dean of Engineering, Columbia University, 2012

- Faculty Oversight Committee, Columbia Mind, Brain, Behavior Initiative, Columbia University, 2012-2014

- Co-Director, Center for Integrated Science and Engineering CISE, Columbia University, 2012-2014

- Program Committee, International Conference on Ultrafast Phenomena, 2012, 2014, 2016

- Past President, Optical Society of America, 2013
- Program Committee, Conference on Ultrafast Surface Dynamics, Estes Park, CO, 2013
- Program Committee, Graphene Week, Chemnitz, Germany, 2013
- Chair, Subcommittee for Optics and Photonics, NSF Directorate of Mathematical and Physical Science, 2013-2015
- International Scientific Board, Institute of Science and Technology, Austria, 2013 –
- Scientific Advisory Board, Fritz-Haber Institute, Berlin, Germany, 2014 –
- Scientific Advisory Board, Max-Born Institute, Berlin, Germany, 2014 –
- Max-Born Awards Committee, Optical Society of America, 2015-2016.
- Organizer of symposium on properties and growth of 2D materials, APS March Meeting 2017, New Orleans, LA, 3/13 – 3/17/17.
- Founding Editor, North America, *2D Materials,* new journal published by the Institute of Physics in response to emergence of this research area, 2014 – 2018.
- Co-chair, DOE Roundtable on Frontiers of X-ray Ultrafast Science, 2016-17.
- Scientific Advisory Committee, Center for Computational Study of Excited-State Phenomena in Energy Materials - C2SEPEM, University of California, Berkeley, Lawrence Berkeley National Laboratory, 2016 -
- Chair, search committee, Photon Sciences Dept., SLAC/Stanford, 2017 - 2019
- Scientific Advisory Committee, Center of the Advancement of Topological Semimetals (CATS) Energy Frontier Research Center, Ames Laboratory, 2017 –
- Scientific Advisory Committee, Center for Novel Pathways to Quantum Coherence Energy Frontier Research Center, University of California, Berkeley, Lawrence Berkeley National Laboratory, 2017 - 2023
- Editorial board, *2D Materials,* 2018 –
- Strategic planning committee for the natural sciences, Stanford University, 2018-19
- Executive committee, Q-FARM quantum information science center, Stanford University, 2019-
- AAAS Electorate Nominating Committee ENC (Sect. B), 2019 - 2022
- Faculty search committee for quantum information science, Stanford University, 2020-2021

- DOE workshop on the quantum internet blueprint workshop, 2020
- Scientific Advisory Board, DOE QIS Center: Co-Design Center for Quantum Advantage, 2020-
- Scientific Advisory Board, Center for Electrochemical Dynamics and Reactions at Surfaces (CEDARS), DOE Energy Frontier Research Center, North Carolina A&T State University, 2022-
- Graduate Committee, Dept. of Applied Physics, Stanford, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023
- Graduate Admissions Committee, Dept. of Applied Physics, Stanford, 2023 – 24.
- Member, Faculty Senate, Stanford, 2022 – 23, 2023 – 24
- Member, Committee of Atomic, Molecular, and Optical Sciences, National Academies of Sciences, Engineering, and Medicine, 2024 –
- Member, Executive Committee, Stanford Science Fellows, Stanford 2024 –
- Academic Council Committee on Research (C-Res), Stanford, 2024 –
- Director of Graduate Studies, Department of Applied Physics, Stanford, 2024 –
- Scientific Advisory Board, New York Max Planck Center, 2021-2024, 2024-
- Scientific Advisory Board, Quantum Photonic Integrated Design Center (QuPIDC) Energy Frontier Research Center, Purdue University, 2024 -

HONORS AND DISTINCTIONS FOR TONY F. HEINZ

- Levine Award for Outstanding Studies in Physics, Stanford University, 1978
- National Science Foundation Graduate Fellow, UC Berkeley, 1978 – 81
- Hertz Graduate Fellowship (declined), 1978
- IBM Graduate Fellow, University of California, Berkeley, 1982 - 83
- IBM Outstanding Technical Achievement Award, 1992, and Invention Award, 1994
- International Commission for Optics Prize; Ernst Abbe Medal, 1995
- Alexander von Humboldt Research Award, Germany, 1996
- Great Teacher Award, Columbia University, 2005
- Julius Springer Prize for Applied Physics (with Phaedon Avouris), 2008
- Gordon and Betty Moore Foundation EPiQS Investigator, 2014-19
- Frank Isakson Prize, American Physical Society, 2014
- Clarivate 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023 highly cited in Physics
- Clarivate Citation Laureate 2019 (one of three in physics worldwide)
- Gordon and Betty Moore Foundation EPiQS Investigator, 2020-24
- William F. Meggers Award, Optical Society of America, 2020
- Medard W. Welch Award, American Vacuum Society, 2021
- Arthur L. Schawlow Prize in Laser Science, American Physical Society, 2022
- IEEE NTC Pioneer Award in Nanotechnology, 2024
- ACS Ahmed Zewail Award in Ultrafast Science and Technology, 2025
- Recent named lectures: Bucy Lecture, Texas Tech University, 2023; Crawford Memorial Lecture, University of Pittsburgh, 2023; Condon Lecture, University of Colorado, 2023.
- Fellow, American Physical Society
- Fellow, IEEE
- Fellow, American Vacuum Society
- Fellow, Optica (OSA)
- Fellow, Materials Research Society
- Fellow, American Association for the Advancement of Science (AAAS)
- Member, National Academy of Science

GRADUATE STUDENTS AND POSTDOC ADVISEES FOR TONY F. HEINZ

Doctoral students:

Dr. Elyse Barré (Molecular Foundry, Lawrence Berkeley National Lab)

Prof. Ozgur Burak Aslan (Bogazici University, Turkey)

Prof. Joanna Atkin (Dept. of Chemistry, University of North Carolina)

Prof. Ioannis Chatzakis (Dept. of Physics and Astronomy, Texas Tech. University)

Ms. Xueqi Chen (Current: Dept. of Physics, Stanford)

Dr. Minda Deng (Apple)

Dr. Heather Hill (American Physical Society)

Ms. Jenny Hu (Current: Dept. of Applied Physics, Stanford)

Prof. Zonghai Hu (Dept. of Physics, Beijing University of Posts and Telecommunications, China)

Dr. Charles Kerbage (Convergent Dental)

Dr. Suk Hyun Kim (Seoul National University, Korea)

Ms. Karen Lau (Current: Dept. of Applied Physics, Stanford)

Dr. Yilei Li (Kodiak Sciences)

Prof. Chun Hung Lui (Dept. of Physics, UC Riverside)

Prof. Kin Fai Mak (Dept. of Physics, Cornell University)

Dr. Idan Mandelbaum (CACI International)

Mr. Amal Mathew (Current: Dept. of Applied Physics, Stanford)

Prof. Ajay Nahata (Dept. of Electrical Engineering, University of Utah)

Dr. Clara Nyby (Citrine Informatics, Inc.)

Dr. Aidan O'Beirne (Apple)

Dr. Hayn Park (DE Shaw)

Dr. Kate Pistunova (Motional, Inc.)

Mr. Yannick Pleimling (Applied Physics, current)

Dr. Dan Quinn (TFSCG)

Dr. Archana Raja (Staff Scientist, Lawrence Berkeley National Lab)

Dr. Albert Rigosi (Staff Scientist, NIST)

Prof. Jie Shan (Dept. of Engineering Physics, Cornell)

Dr. Daohua Song (Goldman Sachs)

Dr. Igor Stiopkin (University of Wisconsin)

Prof. Feng Wang (Dept. of Physics, UC Berkeley)

Ms. Jierong Wang (Current: Dept. of Applied Physics, Stanford)

Dr. Yang Wu (Lansdowne Partners)

Prof. Hugen Yan (Dept. of Physics, Fudan University, China)

Ms. Helen Yao (Current: Dept. of Materials Science and Engineering, Stanford)

Prof. Xiao-Xiao Zhang (Dept. of Physics, University of Florida, Gainesville)

Dr. Hui Zhou (Brion, Inc.)

Ms. Alexandra Zimmerman (Current: Dept. of Material Science and Eng., Stanford)

Postdoctoral advisees and visitors:

Dr. Andrew Attar (Vescent Photonics)

Prof. Joanna Atkin (Dept. of Chemistry, University of North Carolina)

Prof. Ludwig Bartels (Dept. of Chemistry, UC Riverside)

Prof. Stephane Berciaud (Dept. of Physics, University of Strasbourg, France)

Dr. Albert Biedermann (Dept. of Physics, University of Vienna, Austria)

Dr. Mischa Bonn (Director, Max-Planck Institute, Mainz, Germany)

Prof. Davide Boschetto (ENSTA, Ecole Polytechnique, Paris)

Dr. Florian Budde (McKinsey and Co.)

Mr. Jiuru Chen (Peking University, China)

Prof. Ting Cao (Dept. of Material Science, University of Washington)

Prof. Alexey Chernikov (Technical University of Dresden, Germany)

Prof. Hyunyong Choi (Dept. of Physics, Seoul National University, Korea)

Prof. Keshav Dani (OIST, Japan)

Dr. Jerry Dadap (Dept. of Physics, University of British Columbia)

Dr. Ipshita Datta (Lawrence Livermore National Laboratory)

Prof. Michael Duerr (Dept. of Applied Physics, University of Giessen, Germany)

Dr. Daejin Eom (KRISS, Korea)

Dr. Friederike Ernst (Gnosis.pm, Inc.)

Prof. Laszlo Forro (Dept. of Physics, EPFL, Switzerland)

Dr. Joergen Gladh (FOI Swedish Defense Research Agency, Sweden)

Dr. Claudia Gollner (Current: SIMES, SLAC)

Dr. Rubaiat Ul Haque (Current: SIMES, SLAC)

Dr. Christian Heide (Current: Pulse Institute, SLAC)

Prof. Tobias Hertel (Dept. of Chemistry, University of Wuerzburg, Germany)

Prof. Ulrich Hoefer (Dept. of Physics, University of Marburg, Germany)

Prof. Libai Huang (Dept. of Chemistry, Purdue University)

Prof. Shengxi Huang (Dept. of Electrical and Computer Engineering, Rice University)

Dr. Markus Huber (University of Regensburg, Germany)

Dr. Giraj Jnawali (Dept. of Physics, University of Cincinnati)

Dr. Alexander Kalamarides (IntelliClear, Inc.)

Dr. Ouri Karni (NTT Research, Sunnyvale, CA)

Mr. Jinjae Kim (Seoul National University, Korea)

Prof. Ernst Knoesel (Dept. of Physics, Rowan University)

Dr. Yuki Kobayashi (Dept. of Chemistry, University of Michigan)

Dr. Holger Lange (Dept. of Chemistry, U. Hamburg, Germany)

Dr. Qitong Li (Current: Dept. of Applied Physics, Stanford)

Prof. Zhiqiang Li (Dept. of Physics, Sichuan University, China)

Prof. Tony Low (Dept. ECE, University of Minnesota)

Prof. Eric Ma (Dept. of Physics, University of California, Berkeley)

Prof. Leandro Malard (Universidade Federal de Minas Gerais, Brazil)

Prof. Janina Maultzsch (Dept. of Physics, U. Erlangen-Nürnberg, Germany)

Prof. Yuhei Miyauchi (Institute of Advanced Energy, Kyoto University, Japan)

Dr. Dietmar Moeller (unknown)

Dr. Judith Prybyla (Lewis School, Princeton)

Dr. Xixi Qin (Current: SUNCAT, Stanford)

Dr. Archana Raja (Molecular Foundry, Lawrence Berkeley National Laboratory)

Prof. Yi Rao (Dept. of Chemistry, Utah State University)

Prof. Georg Reider (Dept. of Electrical Eng., Technical U. Vienna, Austria)

Dr. Henrique Bucker Ribeiro (Corning, Inc)

Dr. Cyrielle Roquelet (ArcelorMittal, France)

Dr. Sami Rosenblatt (IBM Research Division, Yorktown Heights, NY)

Dr. Claudia Ruppert (Dept. of Physics, University of Dortmund, Germany)

Prof. Jie Shan (Dept. of Applied Physics, Cornell)

Dr. Marcus Soldemo (Dept. of Physics, Stockholm University, Sweden)

Prof. Julia Staehler (Dept. of Chemistry, Humboldt University, Berlin, Germany)

Dr. Dezheng Sun (Brion, Inc.)

Prof. Takanori Suzuki (Dept. of Physics, National Defense Academy, Japan, retired)

Dr. Monique Tie (Current: Dept. of Applied Physics, Stanford)

Prof. Christophe Voisin (Ecole Normale Supérieure, Paris, France)

Dr. Lutz Waldecker (RWTH Aachen University, Germany)

Prof. Feng Wang (Dept. of Physics, UC Berkeley)

Prof. Han Wang (School of Physical Sciences, ShanghaiTech, China)

Dr. Aniruddha Weling (Triton Systems)

Dr. Martin Wolf (Director, Fritz-Haber Institute, Berlin, Germany)

Dr. Jun Xiao (Dept. of Materials Science and Engineering, University of Wisconsin)

Prof. Omer Yaffe (Dept. of Complex Systems, Weizmann Institute, Israel)

Prof. Jie Yang (Dept. of Chemistry, Tsinghua University, China)

Prof. Ziliang Ye (Dept. of Physics, University of British Columbia, Canada)

Prof. YuMeng You (Dept. of Chemistry, Southeast University, China)

Dr. Leo Yu (Current: Dept. of Applied Physics, Stanford)

Prof. Xiao-Xiao Zhang (Dept. of Physics, University of Florida, Gainesville)

SELECTED RECENT INVITED TALKS FOR TONY F. HEINZ

T. F. Heinz, "Electronic and Vibrational Properties of Few-Layer Graphene," Conference on Fundamental Aspects of Graphene and Other Carbon Allotropes, Kavli Institute for Theoretical Physics Meeting, Santa Barbara, CA, 1/9 – 1/13/12.

T. F. Heinz, "Electronic Interactions and Ultrafast Dynamics in Graphene," Gordon Research Conference on Ultrafast Phenomena in Cooperative Materials, Galveston, TX, 2/19 – 2/24/12.

T. F. Heinz, "Many-Body Effects in the Optical Properties of Graphene," March Meeting of the American Physical Society, Boston, MA, 2/27 – 3/2/12.

T. F. Heinz, "Probing Interactions in Single- and Few-Layer Graphene by Optical Spectroscopy," International Winter School on Electronic Properties of Novel Materials, Kirchberg, Austria, 3/4/ - 3/9/12.

T. F. Heinz, "Seeing Electrons in Two Dimensions: Optical Spectroscopy of Graphene," Physics, Colloquium, MIT, Cambridge, MA 4/5/12.

T. F. Heinz, "Probing Ultrafast Dynamics in Nanoscale Materials by Optical Experiments," Workshop on X-Rays in the Fourth Dimension, Chicago, IL, 5/4 – 5/6/12.

T. F. Heinz, "Probing Electronic Interactions in Graphene by Optical Spectroscopy" Graphene Week 2012, Delft, The Netherlands, 6/3 – 6/8/12.

T. F. Heinz, "Electronic Properties of Single- and Few-Layer Graphene," Gordon Research Conference on Chemistry and Physics of Graphitic Carbon, Davidson, NC, 6/17 – 6/22/12.

T. F. Heinz, "Probing Interactions and Dynamics in Graphene by Optical Spectroscopy," Low-Energy Electrodynamics in Solids LEES 2013, Napa, CA, 7/22 – 7/27/12.

T. F. Heinz, "Seeing Electrons in Two Dimensions: Optical Spectroscopy of Graphene," The Third International Workshop on Nanocarbon Photonics and Optoelectronics, Polvijärvi, Finland, 7/29 – 8/4/12.

T. F. Heinz, "MoS_2 Crystals at Monolayer Thickness - A New Direct Gap Material," 2D Materials beyond Graphene Workshop, Ohio State University, Columbus, OH, 8/8 – 8/9/12.

T. F. Heinz, "Terahertz Spectroscopy of Nanomaterials" Frontiers of Terahertz Science, Stanford University, Stanford, CA, 9/5 - 9/6/12.

T. F. Heinz, "Seeing Electrons in Two Dimensions: Optical Spectroscopy of Graphene," 73rd Japan Society of Applied Physics Autumn Meeting, Matsuyama, Japan, 9/11- 9/14/12.

T. F. Heinz, "Seeing Electrons in Two Dimensions: Optical Spectroscopy of Graphene," International Conference on Applied Optics and Optical Engineering, Changchun, China, 9/16 – 9/18/12.

T. F. Heinz, "Seeing Electrons in Two Dimensions: Optical Spectroscopy of Graphene," Department of Physics, Fudan University, Shanghai, China, 9/20/12.

T. F. Heinz, "Vibrational Spectroscopy of Single- and Few-Layer Graphene," Vibrations at Surfaces VAS14, Kobe, Japan, 9/24 – 9/28/12.

T. F. Heinz, *Plenary Talk:* "Probing the Ultrasmall with the Ultrafast: THz Spectroscopy of Nanomaterials," 37th International Conference on Infrared, Millimeter and Terahertz Waves IRMWW-THz 2012, Wollogong, Australia, 9/23/-9/28/12.

T. F. Heinz, "Optical Spectroscopy of Graphene," American Vacuum Society International Symposium AVS-59, Tampa, FL, 10/28 – 11/2/12

T. F. Heinz, *Plenary Talk:* "Seeing Electrons in Two Dimensions: Optical Spectroscopy of Graphene and MoS_2 Monolayers," ElecMol'12, 6th International Meeting on Molecular Electronics, Grenoble, France, 12/3/ - 12/7/12.

T. F. Heinz, "Seeing Electrons in Two Dimensions: Optical Spectroscopy of Graphene and MoS_2 Monolayers," XFEL Colloquium, DESY, Hamburg, Germany, 12/7/12.

T. F. Heinz, *Plenary Talk*: "Graphene - Optical Properties and Emerging Photonics Technologies,"14th International Meeting on Optical Engineering and Science in Israel, Tel Aviv, Israel, 2/19 -2/20/13.

T. F. Heinz, "Seeing Electrons in Two Dimensions: Optical Spectroscopy of Graphene," Weizmann Institute of Science, Rehovat, Israel, 2/21/13.

T. F. Heinz, "Seeing Electrons in Two-Dimensions: Optical Spectroscopy of Graphene," French-Israeli Symposium on Nonlinear and Quantum Optics, Ein Gedi, Israel, 2/24 – 3/1/13.

T. F. Heinz, "Electronic and Optical Properties of MoS_2 at Monolayer Thickness," International Winter School on the Electronic Properties of Novel Materials, Kirchberg, Austria, 3/2 -3/9/13.

T. F. Heinz, "Seeing Electrons in 2-Dimensions," Physics Colloquium, UC Berkeley, 4/15/13.

T. F. Heinz, "Probing Electronic Interactions in Graphene and MoS_2 by Optical Spectroscopy," Electron-Electron Interactions in Graphene, Minneapolis, 5/3 -5/5/13.

T. F. Heinz, *Tutorial Lecture:* "Optical Properties and Emerging Photonic Applications of Graphene," Conference of Lasers and Electro-optics CLEO, San Jose, CA, 6/9 -6/14/13.

T. F. Heinz, "Optical Spectroscopy of MoS_2," Flatlands Beyond Graphene, Bremen, Germany, 6/17 – 6/21/13.

T. F. Heinz, "Optical Spectroscopy of MoS_2," Workshop on Nanotube Optics and Nanospectroscopy, Santa Fe, NM, 6/16 -6/20/13.

T. F. Heinz, "Excitonic Effects in 2-D Transition Metal Dichalcogenides," Energy Frontier Research Symposium, Washington, DC, 7/18 – 7/19/13.

T. F. Heinz, "Seeing Electrons in Two Dimensions," Gordon Research Conference on Surface Dynamics, Newport, RI, 8/11 – 8/15/13.

T. F. Heinz, Discussion Leader, Gordon Conference on Ultrafast Phenomena in Cooperative Systems, Ventura, CA, 2/2/ - 2/7/14.

T. F. Heinz, "Far-infrared Spectroscopy of Graphene," SPIE Photonics West, San Francisco, CA, 2/3 – 2/7/14.

T. F. Heinz, “Seeing Electrons in Two-Dimensions,” Physics Colloquium, University of Texas, Austin, TX, 2/12/14.

T. F. Heinz, “Seeing Electrons in Two-Dimensions,” Frank Isakson Prize Lecture, March Meeting of the American Physical Society, Denver, CO, 3/3 – 3/7/14.

T. F. Heinz, “Optical Studies of Atomically Thin Transition Metal Dichalogenide Crystals,” Spring Meeting of the Materials Research Society, San Francisco, CA, 4/21 – 4/25/14.

T. F. Heinz, “Excitonic Effects in Atomically Thin Transition Metal Dichalcogenides,” Conference on Excited State Processes in Electronic and Bio Nanomaterials, Santa Fe, NM, 6/9 – 6/12/14.

T. F. Heinz, “Probing Graphene Dynamics by Optical Spectroscopy,” Graphene Week 2014, Gothenburg, Sweden, 6/23 – 6/27/14.

T. F. Heinz, *Plenary talk:* “Optical Spectroscopy of Novel 2D Semiconductors,” IEEE Summer Topical Meeting, Montreal, Canada, 7/14 – 7/17/14.

T. F. Heinz, “Electronic and Optical Properties of Atomically Thin Semiconductors,” Summer School on Semiconductor Interfaces, San Sebastian, Spain, 7/28 – 7/31/14.

T. F. Heinz, “Optical Properties of Atomically Thin Transition Metal Dichalcogenides,” Workshop on 2D Atomic Sheets Beyond Graphene, Army Research Laboratory, Adelphi, MD, 8/12 – 8/13/14.

T. F. Heinz, “Optical Properties of Atomically Thin Semiconductors and Heterostructures,” Rank Prize Funds Symposium on 2D Materials, England, 9/22 – 9/25/14.

T. F. Heinz, *Plenary talk:* “Atomically Thin 2D Semiconductors,” First International Conference on Layered 2-Dimensional Materials, Hangzhou, China, 10/12 – 10/15/14.

T. F. Heinz, "Atomically Thin 2D Semiconductors,” Physics Colloquium, Nanjing University, Nanjing, China, 10/16/14.

T. F. Heinz, “Electronic Properties of Atomically Thin Transition Metal Dichalcogenides,” Conference on Field Effect Transistors and Functional Interfaces, Kawashi, Japan, 10/17 – 10/21/14.

T. F. Heinz, “Optical Spectroscopy of Atomically Thin Semiconductors,” Conference on Physics of Quantum Electronics, Snowbird, UT, 1/4 – 1/8/15.

T. F. Heinz, “Seeing Electrons in 2-Dimensions: Optical Spectroscopy of Atomically Thin Semiconductors,” National High Magnetic Field Laboratory, Tallahassee, FL, 1/13/15.

T. F. Heinz, “Flatlands: The World of Two-Dimensional Materials,” Lecture in Distinguished Speaker Series (for a general audience), University of Central Florida, Orlando, FL, 1/14/15.

T. F. Heinz, “Seeing Electrons in 2-Dimensions: Optical Spectroscopy of Atomically Thin Semiconductors,” Physics Colloquium, University of Central Florida, Orlando, FL, 1/15/15.

T. F. Heinz, “Atomically Thin 2D Materials,” Materials Directorate, Air Force Research Laboratory, Dayton, OH, 1/19/15.

T. F. Heinz, "Seeing Electrons in 2-Dimensions: Optical Spectroscopy of Atomically Thin Semiconductors," Physics Colloquium, Carnegie Mellon University, Pittsburgh, PA, 1/26/15.

T. F. Heinz, *Plenary Talk:* "2-Dimensional Materials: Graphene and Beyond," Symposium on the Electronic and Optical Properties of Materials, University of California, Berkeley, CA, 3/7/15.

A. Chernikov and T. F. Heinz, "Excitonic Effects in 2-Dimensional Semiconductors," International Winter School on the Electronic Properties of Novel Materials, Kirchberg, Austria, 3/8 – 3/14/15.

T. F. Heinz, *Plenary Talk:* "2-Dimensional Materials: Graphene and Beyond," at the Spring Meeting of the German Physical Society, Berlin, Germany, 3/16 – 3/20/15.

T. F. Heinz, "2-Dimensional Materials: Graphene and Beyond," Physics Colloquium, Rutgers University, Piscataway, NJ 3/31/15.

T. F. Heinz, "Optical Response of Graphene: From the THz to the UV," Spring Meeting, Materials Research Society, San Francisco, CA, 4/6 – 4/10/15.

T. F. Heinz, "Many-Body Interactions and Ultrafast Dynamics in 2-D Transition Metal Dichalcogenide Crystals," Spring Meeting, Materials Research Society, San Francisco, CA, 4/6 – 4/10/15.

T. F. Heinz, "Probing and Tuning the Valley Degree of Freedom in Transition Metal Dichalcogenide Monolayers by the Application of Magnetic Fields," Spring Meeting, Materials Research Society, San Francisco, CA, 4/6 – 4/10/15.

T. F. Heinz, "Optical Properties of 2-Dimensional Materials: Graphene and Beyond," Stanford Photonics Research Center Retreat, Pacific Grove, CA, 4/12/15.

T. F. Heinz, "Optical Properties of 2-Dimensional Materials: Graphene and Beyond," New England Section of the Optical Society of America, Concord, MA, 4/16/15.

T. F. Heinz, "Electronic and Optical Properties of Atomically Thin Transition Metal Dichalcogenide Crystals," European Union – US Workshop on Layered 2D Materials, Arlington, VA, 4/22- 4/24/15.

T. F. Heinz, *Plenary Talk:* "2-Dimensional Materials: Graphene and Beyond," Conference on Lasers and Electrooptics CLEO, San Jose, CA, 5/11 – 5/15/15.

Z. Ye and T. F. Heinz, "2-Dimensional Materials: Graphene and Beyond," 43rd Electronics Materials Symposium, Santa Clara, CA, 5/21 – 5/22/15.

T. F. Heinz, *Plenary Talk:* "2-Dimensional Materials: Graphene and Beyond," Workshop on Nanotube Optics and Spectroscopy, Kloster Banz, Germany, 6/1 – 6/4/15.

Y. Li and T. F. Heinz, "Addressing and Tuning the Valley Degree of Freedom in Atomically Thin Semiconductors," CLEO Europe, Munich, Germany, 6/22-6/25/15.

T. F. Heinz, "Optical Properties of Atomically Thin Materials," Optics of Surfaces and Interfaces (OSI), Austin, TX, 6/29 – 7/3/15.

T. F. Heinz, "2-Dimensional Materials: Graphene and Beyond," Technion, Haifa, Israel, 7/6/15.

T. F. Heinz, "Optical Properties of Atomically Thin Semiconductor Layers and Heterostructures," Flatlands 2015, Ramat Gan, Israel, 7/7 – 7/10/15.

Y. You and T. F. Heinz, "Excitonic Effects in Atomically Thin Semiconductors," Physics and Device Applications of Two-Dimensional Materials, Nanjing, China, 7/13 – 7/15/15.

T. F. Heinz, "Optical Properties of Atomically Thin Semiconductor Layers and Heterostructures," Fundamental Optical Properties of Semiconductors, Breckenridge, CO, 8/3 – 8/7/15.

T. F. Heinz, "Many-Body Interactions in 2D Materials Probed by Optical Spectroscopy," Moore Foundation Symposium, Sausalito, CA 8/4 – 8/7/15.

T. F. Heinz, "Addressing and Tuning the Valley Degree of Freedom in Atomically Thin Semiconductors," Spintech 8, Basel, Switzerland, 8/10-8/12/15.

T. F. Heinz, *Plenary Talk:* "Two-Dimensional Semiconductors," Pioneers Symposium on Photonic and Electronic Nanostructures, Seoul, Korea, 8/13-8/14/15.

T. F. Heinz, "Probing Two-Dimensional Materials Optically: Graphene and Beyond," Center for Integrated Nanotechnologies CINT Users Meeting, Santa Fe, NM, 9/21-9/22/15.

T. F. Heinz, "Atomically Thin Two-Dimensional Materials - Graphene and Beyond," Material Science and Engineering Colloquium, Stanford University, 10/2/15.

T. F. Heinz, "Optical Properties of 2D Semiconductors and Heterostructures," Laser Science/Frontiers in Optics Meeting, San Jose, CA, 10/19-10/22/15.

T. F. Heinz, "Two-Dimensional Materials: Graphene and Beyond," National Symposium of the American Vacuum Society, San Jose, CA, 10/19-10/23/15.

T. F. Heinz, "Novel Properties of 2D Transition Metal Dichalcogenide Crystals," Graphene Canada 2015, Montreal, Canada, 10/14-10/16/15.

T. F. Heinz, "Optical Properties of Atomically Thin Semiconductors Layers and Heterostructures," The Conference of Advances and Applications in Carbon Related Nanomaterials, Benasque, Spain, 12/7-12/11/15.

T. F. Heinz, "Interactions in Atomically Thin Semiconductors and Heterostructures," La Jolla Workshop on Big Ideas in Quantum Materials, San Diego, CA, 12/14-12/17/15.

T. F. Heinz, "Excitonic Effects in 2D Semiconductor Layers," 43rd Physics and Chemistry of Surfaces and Interfaces Conference - PCSI 43, Palm Springs, CA, 1/17-1/21/16.

T. F. Heinz, "Two-dimensional materials - Graphene and Beyond," Physics Colloquium, Harvard University, Cambridge, MA, 4/11/16.

T. F. Heinz, *Plenary Talk:* "Atomically Thin Semiconductors and Heterostructures," Graphene Week Conference 2016, Warsaw, Poland, 6/13-6/17/16.

T. F. Heinz, "Electronic Excitations and Dynamics in 2D Semiconductors," Ultrafast Dynamics at the Nanoscale, Okinawa, Japan, 7/13-7/16/16.

T. F. Heinz, *Plenary Talk:* "Seeing electrons in 2D - light/matter interactions in atomically thin semiconductors" International Conference on the Physics of Semiconductors ICPS 2016, Beijing, China, 7/31-8/5/16.

T. F. Heinz, "Controlling Excitons in 2D Semiconductors," 2nd EPiQS Investigator Symposium of the Moore Foundation, Aptos, CA, 8/2-8/5/16.

T. F. Heinz, *Plenary Talk:* "Two-Dimensional Semiconductors: The Counterpart to Graphene," Sixteen International Conference on the Science and Application of Nanotubes NT16, Vienna, Austria, 8/7-8/13/16.

T. F. Heinz, "Seeing Electrons in 2D - Light/matter Interactions in Atomically Thin Semiconductors," Workshop on Nanoscale Matter, Venice, Italy, 9/18-9/23/16.

T. F. Heinz, "Atomically Thin Semiconductors and Heterostructures," EU Graphene Flagship – US NSF Workshop - 2D Materials, Heterostructures and Devices, Manchester, UK, 10/10-10/13/17.

T. F. Heinz, "Controlling Excitons in 2D Materials," International Winterschool on the Electronic Properties of Novel Materials, Kirchberg, Austria, 3/4/ - 3/11/17.

T. F. Heinz, *Plenary Talk:* "Seeing Electrons in 2D – Light/Matter Interactions in Atomically Thin Semiconductors," Graphene 2017, Barcelona, Spain, 3/28 – 3/31/17.

T. F. Heinz, "Optical Properties of Atomically Thin Two-dimensional Materials," Conference on Lasers and Electro-Optics CLEO 2017, San Jose, CA, 5/14 – 5/19/17.

T. F. Heinz, "Light-matter interactions in 2D semiconductors," Eighth International Conference on Physics of Light-Matter Coupling in Nanostructures, Wuerzburg, Germany, 7/9 – 7/14/17.

T. F. Heinz, "Controlling Excitons in 2D Materials," Nanophotonics of 2D Materials N2D 2017, San Sebastián, Spain, 7/31 – 8/3/17.

T. F. Heinz, "Controlling Excitons and the Valley Degree of Freedom in 2D semiconductors," Valleytronics Workshop, Cambridge, MA, 8/22-8/23/17.

T. F. Heinz, "Controlling Excitons and the Valley Degree of Freedom in 2D semiconductors," Fundamental Optical Processes in Semiconductors FOPS 2017, Stevenson, WA, 8/27 – 9/1/17.

T. F. Heinz, "Controlling the Valley Degree of Freedom in 2D Transition Metal Dichalcogenides," International Symposium of the American Vacuum Society, Tampa, FL, 10/29 – 11/3/17.

T. F. Heinz, "Seeing Electronics in 2D: Optical Spectroscopy of Atomically Thin Materials," CUI Symposium in Honour of A. Millis, Hamburg, Germany, 11/9/17.

T. F. Heinz, "Many-Body Effects in Atomically Thin Materials," MRS Fall Meeting, Boston, MA, 11/27- 12/1/17.

T. F. Heinz, "Controlling Excitons and Many-Body Interactions in 2D Semiconductors," Physics of Quantum Electronics PQE-2018 Conference, Snowbird, UT, 1/7 – 1/12/18.

T. F. Heinz, "Dynamics of Excitons and the Valley Degree of Freedom in 2D Semiconductors," Gordon Research Conference on Ultrafast Dynamics in Cooperative Systems, Galveston, TX, 2/4 -2/9/18.

T. F. Heinz, *Keynote Address:* "Tuning both the optical and electronic properties of atomically thin materials," Graphene for US, New York, NY, 2/22-2/23/18.

T. F. Heinz, "Seeing and Controlling Dark and Bright excitons in 2D Materials," Excited State Processes in Electronic and Bio Nanomaterials Conference, Santa Fe, NM, 6/4 – 6/7/18.

T. F. Heinz, "Probing and controlling excitations in transition metal dichalcogenides with magnetic fields," 23rd International Conference on High Magnetic Fields in Semiconductor Physics (HMF-23), Toulouse, France 7/22 – 7/27/18.

T. F. Heinz, *Plenary Talk*: "Probing and controlling excitons in 2D semiconductors," International Conference on Superlattices, Nanostructures and Nanodevices, Madrid, Spain, 7/23 – 7/27/18.

T. F. Heinz, "New Quantum Effects in 2D Materials," DoD Planning Meeting on Materials for Quantum Applications, Arlington, VA, 8/14 – 8/15/18.

T. F. Heinz, "Seeing electrons in two dimensions," Ultrafast Optics Symposium, Vienna, Austria, 9/21/18.

T. F. Heinz, *Plenary Talk:* "Optical properties of 2D materials and heterostructures," IEEE 13th Nanotechnology Materials and Devices Conference (NMDC 2018), Portland, OR, 10/14 – 10/17/18.

T. F. Heinz, "Excitons in 2D Materials," International Workshop on Spin and Valley Effects in 2D Materials, Daejon, South Korea, 5/20-5/24/19.

T. F. Heinz, *Plenary Talk*: "Seeing and Controlling Excitons in 2D Materials," Twentieth International Conference on the Science and Applications of Carbon Nanotubes and Low Dimensional Materials NT19, Wuerzburg, Germany, 7/21-7/26/19.

T. F. Heinz, "Optical Properties of 2D Semiconductors and Heterostructures," Winter School on 2D Materials, Rehovot, Israel, 1/14-1/17/19.

E. Y. Ma and T. F. Heinz, "Excitons and Charge Transfer in Atomically Thin 2D Heterostructures," OSA Advanced Photonics Congress, Burlingame, CA, 7/29-8/1/19.

T. F. Heinz, "Ultrafast Electron Dynamics in 2D Materials and Heterostructures," Femto14 – Femtochemistry Conference – Dynamics of Complexity in Chemistry, Biology, and Physics, Shanghai, China, 7/28-8/2/19.

T. F. Heinz, "Quantum Emitters in 2D Semiconductors," NSF Workshop on Enabling Quantum Leap, Philadelphia, PA, 9/20/19.

T. F. Heinz, *Plenary Talk*: "Seeing and Controlling Excitons in 2D Materials," Center for Integrated Nanotechnologies Annual Meeting, Santa Fe, NM, 9/22-9/24/19.

T. F. Heinz, "Controlling Excitons in 2D Materials," ALS Users Meeting Symposium on Layered Materials, Berkeley, CA, 10/2-10/3/19.

T. F. Heinz, *Plenary Talk:* "Electronic and Optical Properties of Atomically Thin Semiconductors," International Conference on Two-Dimensional Layered Materials ICON-2DMAT, Suzhou, China, 10/21 – 10/24/19.

T. F. Heinz, "Electron Correlation Effects in 2D Materials," Symposium on Non-Equilibrium Quantum Phenomena, Flatiron Institute, New York, NY, 11/19-11/20/19.

T. F. Heinz, Materials Research Society Fall Meeting, "Probing and Controlling Excitons in 2D Semiconductors," Boston, MA, 12/2 – 12/6/19.

T. F. Heinz, *Plenary Talk:* "Electronic and Optical Properties of Atomically Thin Semiconductors," Eleventh International Conference on Advanced Materials and Device ICAMD, Jeju, South Korea, 12/10 – 12/13/19.

T. F. Heinz, "Probing Excitons in 2D Materials in Momentum Space," APS March Meeting, 3/15-3/19/21.

T. F. Heinz, "Probing Correlated Excited Electronic States in Moiré Heterostructures," EPiQS Syposium, Moore Foundation, 8/9 – 8/12/21.

T. F. Heinz, "Following Catalytic Reaction of the Ultrafast Time Scale Using Free Electron Lasers," SUNCAT Sumer Institute, 8/16 – 8/19/21.

T. F. Heinz, "Probing Excitons in 2D Materials in Momentum Space," Optics of Excitons in Confined Systems OECS 17, (online) Dortmund, Germany, 8/30 -9/3/2.

T. F. Heinz, "Probing Excitons in 2D Materials in Momentum Space," International Workshop on Emergent Relativistic Effects in Condensed Matter, (online) Regensburg, Germany, 9/22 – 9/24/21.

T. F. Heinz, "Controlling Excitons in 2D Materials and their Heterostructures," NanoIsrael 2021, (online) Jerusalem, Israel, 10/4 – 10/6/21.

T. F. Heinz, "Probing and Controlling Excitons in 2D Materials," Welch Prize Lecture, American Vacuum Society International Symposium - AVS67, 10/25 – 10/28/21.

T. F. Heinz, "Seeing Electrons in 2D," Douglas Osheroff Lectureship, Universidad Autónoma de Ciudad Juárez, (online) Mexico, 11/17/21.

T. F. Heinz, "Probing Excitons in 2D Semiconductors and Heterostructures in Momentum Space," MRS Fall Meeting, Boston, MA 12/6 – 12/8/21.

T. F. Heinz, "2D Semiconductors as Highly Tunable Optoelectronic Building Blocks," MRS Fall Meeting, Boston, MA, 12/6 – 12/8/21.

T. F. Heinz, "Probing Excitons in 2D Semiconductors and Heterostructures in Momentum Space," Berkeley Excited States Conference – BESC 2022, 1/13-1/14/22.

T. F. Heinz, "Probing electrons and electron dynamics in 2D materials and heterostructures," Conference on Ultrafast Spin Dynamics, (online) Berlin, Germany, 3/9 – 3/11/22.

T. F. Heinz, “Advances in Optical Spectroscopy of Nanomaterials” (tutorial), APS March Meeting, Chicago, IL, 3/14-3/18/22.

T. F. Heinz, “Ultrafast and Strong-Field Effects in 2D Materials,” The Frontiers of Attosecond and Ultrafast X-ray Science, Erice, Italy (online), 3/21-3/25/22.

T. F. Heinz, “Schawlow Prize Lecture: Probing and Controlling Excitons in 2D Semiconductors,” Frontiers in Optics, Rochester, NY, 10/9 – 10/12/22.

T. F. Heinz, “Properties and Control of Excitons in 2D Semiconductor Heterostructures,” MRS Fall Meeting, Boston, MA, 11/27 – 12/2/22.

T. F. Heinz, Joint Quantum Institute, “Excited States in 2D Semiconductors and Heterostructures,” University of Maryland - NIST, 02/13/23.

T. F. Heinz, “Probing Excitons in Momentum Space,” Massachusetts Institute of Technology, Cambridge, MA, 02/20/23.

T. F. Heinz, *Crawford Memorial Lecture:* “Seeing Electrons in Two Dimensions,” University of Pittsburgh, 02/21/23.

T. F. Heinz, *Pittsburgh Quantum Institute Distinguished Lecture:* “Optically Excited States in 2D Semiconductors and Heterostructures,” University of Pittsburgh, 02/22/23.

T. F. Heinz, “Excitons in 2D Semiconductors and Heterostructures: A Momentum-Space View,” International Winter School of Electronic Properties of Novel Materials, Kirchberg, Austria, 03/18-23/23.

T. F. Heinz, “Optically Excited States and their Dynamics in Atomically Thin Semiconductor heterostructures,” MRS Spring Meeting, San Francisco, CA, 04/18-21/23.

T. F. Heinz, “Seeing Electrons in Two Dimensions,” Dept. of Physics and Astronomy, Texas Tech University, Lubbock, TX, 04/19/23.

T. F. Heinz, *Bucy Lecture* “Capturing Motion in Real Time down to Atoms and Electrons,” Dept. of Physics and Astronomy, Texas Tech University, Lubbock, TX, 04/19/23.

T. F. Heinz, “Excited States in 2D Semiconductors and Heterostructures,” Department Chemistry, University of Chicago, 5/8/23.

T. F. Heinz, “Excitons in 2D Semiconductors and Heterostructures,” Trends in Quantum Matter, Notre Dame University, South Bend, IN, 05/18 – 19/23.

T. F. Heinz, “Excited states and their dynamics in 2D materials and heterostructures,” Workshop on Excited-State Dynamics, Simons Foundation, New York, NY, 5/24-25/23.

T. F. Heinz, *Plenary Talk:* “Excited States in 2D Transition Metal Dichalcogenides and their Heterostructures,” 2D Transition Metal Dichalcogenides 2023, Cambridge, UK, 6/26-29/23.

T. F. Heinz, Thouless Institute for Quantum Matter Workshop, “Light-matter interactions in 2D materials,” University of Washington, Seattle, WA, 8/5 -7/23.

T. F. Heinz, “Probing excitons in 2D semiconductor monolayers and heterostructures,” Symposium on Forty Years of Semiconductor Nanocrystals, Columbia University, New York, NY, 8/10-11/23.

T. F. Heinz, “Excited States in 2D Semiconductors and Heterostructures,” American Chemical Society Fall 2023 Meeting, San Francisco, CA, 8/12-17/23.

T. F. Heinz, “Excited states in 2D semiconductors and heterostructures probed by optical spectroscopy and momentum space imaging,” Rice University, Houston, TX, 8/24/23.

T. F. Heinz, *Condon Lecture* “Excited states in 2D materials and heterostructures,” University of Colorado, Boulder, 10/20/23.

T. F. Heinz, “Imaging excitons in 2D semiconductor monolayers and heterostructures in momentum space,” Gordon Research Conference on Two Dimensional Electronics Beyond Graphene, Manchester, NH, 6/16 – 6/21/24.

T. F. Heinz, *Plenary Talk:“*Light-matter interactions in 2D semiconductors and their heterostructures,” CLEO-PR, Incheon, Korea, 8/4 – 8/9/24.

T. F. Heinz, “Seeing electrons in two dimensions: Optical spectroscopy of 2D aterials,” Physics Colloquium, Ohio State University, 8/27/24.

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Co-inventor of 20 US issued patents

Total citations: 111,000+; citations in 2023: 8,600+; H-index 134 (google scholar)

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