

Chuji Wang

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Dec. 10, 2024

Educational and Professional History

Education

<i>University of Science and Technology of China</i>	Ph.D. Chemical Physics	1998
<i>State University of New York</i>	Postdoctoral Fellow	1998–2000
<i>Mississippi State University</i>	Postdoctoral Fellow	2000–2001
<i>Anhui Normal University</i>	B.S. Physics	1986

Positions

<i>Mississippi State University</i>		
<i>Dept. of Physics and Astronomy</i>	Professor	2013 – present
<i>Dept. of Physics and Astronomy</i>	Associate Professor	2010–2013
<i>Dept. of Physics and Astronomy</i>	Assistant Professor	2006–2010
<i>Institute of Clean Energy (formerly Diagnostic and Instrument Laboratory (DIAL))</i>		
	Assistant Research Professor	2002–2006
<i>Space Science Institute</i>	Affiliated Research Scientist	2022–present
<i>Tiger Optics LLC</i>	Senior Laser Scientist	2001–2002
<i>Anhui Normal University</i>	Instructor	1986–1993

Professional Society Membership

American Physical Society
American Chemical Society
Society for Applied Spectroscopy

Research Interests

Plasma physics experiments:

Plasma diagnostics, low-temperature plasmas assisted combustion, dusty plasma, plasma jets, ICP, MPT, DBD

Aerosols:

Optical trapping and manipulations of single particles, interplanetary dust particles, airborne particles, and bioaerosols

Atmospheric chemistry and surface chemistry:

Kinetics of mercury, heterogeneous reactions of single aerosol particles

Fiber optic sensors and sensor systems:

Biomedical, environmental, and industrial applications

Cavity ringdown spectroscopy (CRDS) instrumentation

Laser spectroscopy techniques:

CRDS, Raman, LIF, Light Scattering

Awards

<i>The American Association for Aerosol Research (AAAR)</i>	Benjamin Liu Award	2024
(https://www.aaar.org/awards/annual-awards/benjamin-y-h-liu-award/)		
<i>Mississippi State University</i>	Faculty Research Award	2011
<i>Mississippi State University</i>	James Worth Bagley Faculty Award	2011
<i>Mississippi State University, College of A&S</i>	Dean's Eminent Scholar	2011
<i>Mississippi State University</i>	State Pride Award	2010

Other Honors and News Articles Covering Chuji Wang's Research

Front cover, “*Optically levitated, single-particle reactor for the study of surface and heterogeneous chemistry-reactions of particulate-bound mercury with ozone in air*”, Chemical Physics Letter, Vol 817. April 16, **2023**

Front cover, “*Characterization of single fungal aerosol particles in a reactive atmospheric environment using time-resolved optical trapping-Raman spectroscopy (OT-RS)*”, Environmental Science: Atmospheres, 2, 591-600 (**2022**)

Front cover, “*The temporal evolution process from fluorescence bleaching to clean Raman spectra of single solid particles optically trapped in air*”, Chemical Physics Letter, 689, 100-104 (2017)

Front cover, “*Optical trap-cavity ringdown spectroscopy as a single-aerosol-particle-scope*”, Applied Physics Letters, 107, 241903 (2015)

ORAU Senior Fellowship at US Army Research Lab, 2013 fall -2014 spring

Best Paper Award (with \$2,000), *IEEE Sensors Journal*, 2011, for the paper “*A Study on Breath Acetone in Diabetic Patients Using a Cavity Ringdown Breath Analyzer: Exploring Correlations of Breath Acetone With Blood Glucose and Glycohemoglobin A1C*”, *IEEE Sensors Journal*, Vol. 10, No. 1, Jan. 2010

Best Paper Award (with \$1,000), *Sensors*, 2013, for paper “*Breath Analysis Using Laser Spectroscopic Techniques: Breath Biomarkers, Spectral Fingerprints, and Detection Limits*” *Sensors* 9(10), 8230-8262(2009)

“**Highlighted Article**” of the journal in 2008, “*An acetone breath analyzer using cavity ringdown spectroscopy: an initial test with human subjects under various situations*”, *Measurement of Science and Technology*, 19, 105604-14 (2008)

Front cover of the journal, issue 11th, “*Plasma-cavity ringdown spectroscopy (P-CRDS) for elemental and isotopic measurements*”, *Journal of Analytical Atomic Spectrometry*, 22, 1347-1363 (2007)

Nature News, “*Breath test for diabetes: Non-invasive test can pick up the whiff of disease.*” Published online: 6 March 2007

“**Hot Article**”, “*Cavity ringdown measurements of mercury and Its hyperfine structures at 254 nm in an atmospheric microwave plasma: spectral interference and analytical performance*”, *J. Analytical Atomic Spectrometry*, 20, 638 - 644 (2005)

Photonics Spectra, “*Teams Try New Approaches to Fiber Sensors*”, by the Senior Editor, Breck Hitz, May 2004 Edition

Opto & Laser Europe, “*Tough fiber sensor survives extremes*”, by Editor, Oliver Graydon, 3/1/2004

USA Today, “*Researchers invent diabetes test device*”, reported by the Associate Press, 6/10/2004

The New York Times, “*Researchers invent diabetes test device*”, reported by the Associate Press, 6/10/2004.

American Chemical Society, “*Don’t Waste Your breath*”, by the Associate Editor, Rajendrani Mukhopadhyay, *Analytical Chemistry*, 273 A. 8/1/2004

Honors from Advised Students

Winner of the 3-minute thesis competition. She is the first student in the Department of Physics and Astronomy to win this award (\$300) (Achini Ovitigala, PhD candidate, 2024)

Best Graduate Student Award of the department (\$500) (Yukai Ai, Ph.D. candidate, 2024)

Robert Lee Cook Excellence in Graduate Research Award (\$500) (Zhiyong Gong, Ph.D. candidate, 2018)

Research Innovation Award (first place), the MSU Annual Graduate Student Research Symposium (Mahesh Grimier, Ph.D. candidate, 2017)

Best Research Innovation Award, the only one in the MSU Annual Graduate Student Research Symposium, (Malik Kaya, Ph.D. candidate, 2012)

Bagley College of Engineering Outstanding Graduate Student Award (\$6,000) (Zhiyong Gong, Ph.D. candidate, 2010)

Bagley College of Engineering Outstanding Graduate Student Award (\$6,000) (Nimisha Srivastava, Ph.D. candidate, 2010)

Best Student Paper, 2010 Earth and Science International Conference, Hawaii, 2010 (Chamini Herath, M.S. 2010)

Grants

Total: \$ 9,875,684 (2002- Dec. 2024)

Total: \$ 7,677,453 to Chuji Wang at MSU

- **External grants (23): \$4,361,867**
 - Sole PI=13, PI=6, Co-PI=4
- **MSU internal grant (1), PI, \$2,000**
- **Grants (8) through ICET and formerly DIAL, Project/Task PI, \$3,313,586**
- **Grant via EPSCoR, none**

8 from the National Science Foundation (2004, 2007, 2009, 2011, 2012, 2016, 2021, 2023)

5 from the US Department of Defense (2013(2), 2016, 2021(2))

4 from the US Department of Energy Office of Science (2002, 2005, 2020, 2021)

4 from the US Department of Energy national labs (2007, 2011, 2013, 2016)

1 from NASA (2023)

1 from the US Department of Agriculture (2011)

1 from MSU (ORED) (2007)

8 from the US Department of Energy Waste Management Office (2002-2008)

- 1) National Science Foundation, Collaborative Research (ECLIPSE): Physical and chemical insights into particle formation and dynamics in dusty plasma via multi-fold laser diagnostics”, Grant # NSF-2308947, 06/1/2023 - 05/31/2026, (**Chuji Wang, PI, MSU is the lead institute**, with Edward Thomas and Saikat Chakraborty Thakur (PIs, Auburn University)

Total: \$658,777

MSU: **\$357,868**

Auburn U.: \$300,909

- 2) National Science Foundation, Collaborative Research: Kinetics and quantitative spectroscopy for redox chemistry of atmospheric mercury, Grant # ECS- 2108712, 09/01/2021-08/31/2024, **PI: Chuji Wang, MSU is the lead institute**, with Theodore S. Dibble (PI, State University of New York, College of Environmental of Science and Forestry).

Total: \$555,000 MSU: **\$496,117** SUNY-ESF.: \$58,883

- 3) NASA, Light Scattering and Dynamics of IDPs, Emerging World, grant # 80NSSC23K0788. 06/01/2023-05/31/2026. **PI: Chuji Wang**, Co-PI: Gordon Videen, Space Science Institute.

Total: \$530,237 MSU: **\$174,213** SSI: \$356,024

- 4) US Department of Defense, Army Research Office, Study of surface and heterogeneous of mercury using a single-particle approach, Grant # W911NF-21-1-0171, **\$358,490**, 5/10/2021-5/9/2024, **Chuji Wang, sole PI**.

- 5) Department of Energy, Office of Fusion Energy Sciences, Time-, space-, and molecule-resolved multiple plasma reactive species in complex settings using an innovative approach of cavity ringdown spectroscopy, Grant # DE-SC0021530, **\$199,999**, 03/15/2021 to 03/14/2023, **Chuji Wang, Sole PI**.

- 6) Department of Energy, Office of Fusion Energy Sciences, Optical trapping and manipulation of single particles for MDP, Grant # DE-SC0021030, **\$214,721**, 09/1/2020-08/31/2022, **Chuji Wang, sole PI**.

- 7) National Science Foundation, Molecular Insights into the Oxidation of Atmospheric Mercury: The Next Frontier in Atmospheric Mercury Science,

Grant # ECS- 1609848, 07/1/2016-06/30/2019, Chuji Wang (Co-PI, MSU) and Theodore S. Dibble (PI, State University of New York, College of Environmental of Science and Forestry).

Total: \$ 510,500 MSU: **\$263,642** SUNY:\$246,858

- 8) National Science Foundation, Molecular Insights into the Oxidation of Atmospheric Mercury: The Next Frontier in Atmospheric Mercury Science, Grant # ECS- 1609848, 07/1/2016-06/30/2021, **Chuji Wang (Co-PI, \$263,642 @MSU)** and Theodore S. Dibble (PI, State University of New York, College of Environmental of Science and Forestry).

\$ 10,789, an add-on for the project at MSU

- 9) National Science Foundation, Molecular Insights into the Oxidation of Atmospheric Mercury: The Next Frontier in Atmospheric Mercury Science, Grant # ECS- 1609848, 07/1/2016-06/30/2019, **Chuji Wang (Co-PI, MSU)** and Theodore S. Dibble (PI, State University of New York, College of Environmental of Science and Forestry).

\$ 24,500 add-on for the project at MSU,

- 10) US Department of Defense, Army Research Office, Single Aerosol Particle Studies Using Optical Trapping- Raman Spectroscopy, Grant # W911NF-16-1-0483, **\$338,512**, 9/1/2016-8/31/2019, **Chuji Wang, sole PI.**

- 11) US Department of Energy, Fiber Loop Ringdown Sensors for Remote Monitoring of Post Tension Rod, Grant # 245854, **\$ 95,000** (Phase I), 1/1/2016-9/30/2016, **Chuji Wang, sole PI.**

- 12) US Department of Defense, Army Research Office, Physical and Chemical Study of Single Aerosol Particles using Optical Trapping-Cavity Ringdown Spectroscopy, Grant # W911NF-13-1-0429, **\$330,000**, 09/01/2013-08/31/2016, **Chuji Wang, sole PI.**

- 13) US Department of Defense, DURIP program, Optical Trapping-Cavity Ringdown Spectroscopy, Grant # W911NF-13-1-0297, **\$158,000**, 09/01/2013-08/31/2014, **Chuji Wang, sole PI.**

- 14) Department of Energy, Monitoring of ISD Using Fiber Optic Sensors (Phase III), Grant # AC84132N, **\$ 15,000**, 03/15/2013-02/28/2014, **Chuji Wang, sole PI.**

- 15) Department of Agriculture, Production and Characterization of Carbon-based Nanomaterials from Beetle Killed Wood, Grant # 11-JV-11111124-129, **\$ 55,000**, 08/17/11 - 07/31/14, **Chuji Wang Co-PI** with PI (Dr. Jilei Zhang at MSU).

\$ 55,000 to Chuji Wang at MSU

- 16) *National Science Foundation, Quantitative Survey of Combustion Intermediates Towards Understanding of Plasma-Assisted Combustion Mechanism, Grant # CBET-1066486, **\$ 318,016**, 05/1/2011-4/30/2015, **Chuji Wang, sole PI.**

- 17) National Science Foundation, REU (Research for Undergraduate Experience) program with Grant # CMMI-0927539, **\$12,000**, 10/1/2012-9/30/2013, **Chuji Wang, sole PI.**

- 18) Department of Energy, Monitoring of ISD Using Fiber Optic Sensors, Grant # AC84132N, \$ **75,000**, 06/15/2011-12/31/2012, **Chuji Wang, sole PI**.
- 19) National Science Foundation, A Multi-functional Fiber Optic Sensor Platform Using a Time Domain Sensing Scheme, Grant # CMMI-0927539, **\$170,000**, 10/1/2009-9/30/2013, **Chuji Wang, sole PI**.
- 20) National Science Foundation, Physical and Chemical Study of Low-Energy Electron Plasma, Grant # CTS-0626302, 2/1/2007 - 1/31/2010. **Chuji Wang (Co-PI)**, Theodore S. Dibble (PI, State University of New York, College of Environmental of Science and Forestry).
- Total: \$353,000 **MSU: \$150,000** SUNY: \$203,000
- 21) National Science Foundation, Isoprene-OH Peroxy Radicals: Kinetic Studies of Specific Isomers, Grant # ATM-0352926, 4/1/2004 - 3/31/2007. **Chuji Wang (Co-PI)**, Theodore S. Dibble (PI, State University of New York, College of Environmental of Science and Forestry), \$150,000 @MSU.
- Total: \$332,557 **MSU: \$150,000** SUNY: \$182,557
- 22) Department of Energy, National Energy Technology Laboratory, Ringdown Spectrometer for CH₄, CO₂ and C-13 isotope, Grant # DE-RQ26-05NT500832, \$ **90,000**, 9/28/2005 - 8/31/2007. **Chuji Wang, sole PI**.
- 23) Department of Energy, Office of Science, Ultra-Sensitive Elemental and Isotopic Measurements with Plasma Cavity Ringdown Spectroscopy, Grant # DE-FG07-02ER63515, 9/15/2002 - 3/14/2006. **Chuji Wang (PI, MSU)**, Yixiang Duan (PI, Los Alamos National Laboratory), Chris. B. Winstead (Co-PI, University of Southern Mississippi), \$400,000 @MSU.

Total: \$1,250,000 LANL: \$800,000 **MSU:\$400,000** USM:50,000

- 24) DOE-ICET grant DEFC01006EW07040-08245035, Task 4.4, Cavity Ringdown System, Child account # 0008245-035, **\$328,064**, 2/1/2008 - 06/30/2008. **Chuji Wang (PI)**.

- 25) DOE-ICET grant DEFC01006EW07040-06040310, Task 4.3, Cavity Ringdown System, Child account # 0008245-035, **\$334,712**, 2/1/2007 - 1/31/2008. **Chuji Wang (PI)**.

- 26) DOE-ICET grant # DEFC0106EW07040 06040310, Task 6.1, Measurement, Monitoring, and Characterization of Trace Metals, Radionuclides, and Organic Vapors, Child account # 0081245-024, **\$224,617**, 01/1/2006-03/31/2008. **Chuji Wang (PI)**.

- 27) DOE-DIAL, National Energy Technology Laboratory, Southeast Regional Carbon Sequestration Partnership, Grant #SSEB-NT41980-997 (Phase I), 10/1/2005 - 9/30/2007, J. Lindner (PI, MSU-DIAL), and other Co-PIs. **Chuji Wang (Co-PI) for \$164,965**.

- 28) DOE-DIAL, National Energy Technology Laboratory, R&D of Measurement, Mitigation, and Verification in Carbon Sequestration, supported by Southeast Regional Carbon Sequestration Partnership, Grant #SSEB-NT41980-997 (Phase II), 10/01/2005 - 09/30/2008, Jeff Lindner, (PI, Associate Director of MSU-DIAL), **Chuji Wang (Co-PI) for \$400,000**.

- 29) DOE-DIAL, In-Tank/At-Tank Characterization for Closure of Hanford Waste Tanks, 12/1/2003 - 11/30/2004. M. J. Plodinec (PI, Director of MSU-DIAL) and **Chuji Wang (Task PI) for \$754,142**.
- 30) DOE-DIAL, Development of Tank Leak Detection System, 12/1/2003 - 11/30/2004. M. J. Plodinec (PI, Director of MSU-DIAL) and **Chuji Wang (Task PI) for \$209,350**.
- 31) DOE-DIAL, In-Tank/At-Tank Characterization for Closure of Hanford Waste Tanks, 12/1/2002 - 11/30/2003. M. J. Plodinec (PI, Director of MSU-DIAL) and **Chuji Wang (Task PI) for \$897,736**.
- 32) Office of Research and Economic Development (ORED) at MSU, Clinic Testing and Sampling of a Breath Analyzer, **\$2,000, 2007**. **Chuji Wang, sole PI**.

** 2010 NSF Career Proposal award was converted to a 2011 regular grant, upon early promotion to Associate Prof. in 2010). CBET Combustion, Fire, and Plasma program, Program Manager, Prof. Arvind Atreya from University of Michigan, Email: aatreya@umich.edu.*

Publication Impact

Citations

Total citations 5,084, h-index: 36, *Google Scholar*, Dec. 3, 2024

The World's Top 2% Scientists by the Stanford University database
<https://dx.doi.org/10.17632/btchxktzyw>

Teaching

Students/Scholars Supervised

Former graduate students

1. Nimisha Srivastava (Ph.D. 2011) (from 2011, Research Engineer, **Intel Inc**)
2. Susan S. Scherrer (Ph.D. 2011) (from 2011, R&D Engineer, **Southern Ionics**)
3. Malik Kaya (Ph.D. 2013) (from 2013, **Assistant Professor**, Turkey)
4. Peeyush Sahay (Ph.D. 2013) (from 2013, **Research Scientist**, University Memphis)
5. Zhennan Wang (2014, Ph.D.) (from 2014, **Aerodyne Research Inc**, Boston, MA)
6. Wei Wu (Ph.D. 2016) (from 2016, **Lam Research** Corporation)
7. Che A Fuh (Ph.D. 2018) (from 2018, **Intel Inc**)
8. Maheshwar Ghimire (Ph.D. 2018) (from 2018, **Intel Inc**)
9. Shane Clark (M.S. 2018) (from 2018, **BAE Systems**)
10. Zhiyong Gong (Ph.D. 2019) (from 2019, **WYATT Technology**)
11. Rongrong W. Cohen (Ph.D. Dec. 2022) (from 2023, **ASML**, San Diego)
12. Sudip P. Koirala (M.S. 2005) (now, Processing Engineer, **Intel Inc**)
13. Armstrong Mbi (M.S.2006) (Ph.D. in Medical Physics, 2012, Georgetown Univ. now, from 2014, NIH, Now **Goldman Sachs**)
14. Nimisha Srivastava (M.S. 2009)
15. Chamini Gerath (M.S. 2010)
16. Peeyush Sahay (M.S. 2010)
17. Malik Kaya (M.S. 2011)
18. Wei Wu (M.S. 2013)
19. Haifa Alali (M.S. 2014)
20. Che A Fuh (M.S. 2016)

Current Ph.D. students

1. Haifa Alali (2014-, Ph.D. student)
2. Pubuduni E. Mudiyanseelage (2018-, Ph.D. student)

3. Yukai Ai (2019-, Ph.D. student)
4. Cameron Gaito (2022-, Ph.D. student)
5. Achini Ovitigala (2022-, Ph.D. student)

Postdoctoral Associates

Dr. Jason Fuller (2004-2005)

Dr. Pawal Cias (2004-2006)

Dr. Meixiu Sun (2014-2015)

Undergraduate Students

Cameron Gaito (2020-2022)

Jeff Headley (2016-2018) (from 2018, US Naval Oceanographic Office)

Andrew Cameron (2014-2015)

Diana Hubis (Physics Honor, 2013, NSF-REU)

Jonathan Mathew Miller (Physics Honor, 2013, NSF-REU)

Marthony Robins (Duke University, Ph.D. student from Fall 2012)

Advisory Committee member for 47 graduate students from other research groups

Courses Taught at Mississippi State University

The standard teaching load for Research Active Faculty in the Department of Physics at MSU is 2+2 per academic year. With a 50% buy-out through his research grants and highly active research activities, Dr. Wang's teaching assignments since 2006 have been consistently 1+1 per academic year. The average Student Class Evaluation of all courses he taught is **4.44/5.0** compared to 4.2 for the fall 2011 average for all MSU classes and 4.1 for all physics classes. This is even though physics at MSU is a traditionally difficult class with high failure rates and guarding against grade inflation.

Fall 2006, PH 2223, Physics II (Electricity and Magnetism) (3.8/5.0)

Spring 2007, PH 8213, (Classical Mechanics) (4.6/5.0)

Fall 2007, PH 8803, (Molecular Structure) (4.6/5.0)

Spring 2008, PH 2233, Physics III (4.2/5.0)

Spring 2008, PH 2233, Physics III Lab Coordinator
Fall 2008, PH 2223, Physics II (Electricity and Magnetism) (3.8/5.0)
Spring 2009, PH 2233, Physics III (4.1/5.0)
Fall 2009, PH 8803, (Molecular Structure) (4.6/5.0)
Spring 2010, PH 8213, (Classical Mechanics) (4.5/5.0)
Fall 2010, PH 4213/PH6213, (Intermediate Mechanics I) (4.7/5.0)
Spring 2011, PH 4223/PH6223, (Intermediate Mechanics II) (4.8/5.0)
Fall 2011, PH 2223, Physics II (Electricity and Magnetism) (4.2/5.0)
Spring 2012, PH 8213, (Classical Mechanics) (4.6/5.0)
Fall 2012, PH 2223, Physics II (Electricity and Magnetism) (4.3/5.0)
Spring 2013, PH 8213, (Classical Mechanics) (4.4/5.0)
Fall 2014, PH 4213/PH6213, (Intermediate Mechanics I) (4.9/5.0)
Spring 2015, PH 4223/PH6223, (Intermediate Mechanics II) (4.6/5.0)
Fall 2015, PH 8803, (Molecular Structure) (4.6/5.0)
Spring 2016, PH 2233, Physics III (4.3/5.0)
Spring 2017, PH 8213, (Classical Mechanics) (4.6/5.0)
Fall 2017, PH 2233, Physics III (4.1/5.0)
Spring 2018, PH 8213, (Classical Mechanics) (4.5/5.0)
Fall 2018, PH 8803, (Molecular Structure) (4.8/5.0)
Spring 2019, PH 8213, (Classical Mechanics) (4.6/5.0)
Fall 2019, PH 4213/PH6213, (Intermediate Mechanics I) (4.5/5.0)
Spring 2020, PH 8213, (Classical Mechanics) (4.6/5.0)
Fall 2021, PH 4213/PH6213, (Intermediate Mechanics I) (4.6/5.0)
Spring 2022, PH 8803, (Molecular Structure) (4.6/5.0)

Innovations in Teaching (since 2006)

PH8803, *Molecular Structure*

I use my own lecture notes as “the Textbook.” Each student who took the course was assigned to edit 1–3 chapters of the lecture notes each time the course was offered. In subsequent classes, students used the previously edited chapters and further updated them based on my updated lecture notes. My goal is to publish a book for this course, with acknowledgments for each student’s contributions in

editing (typing, drawing, tables, citations, etc.). The lecture notebook is now in its fifth edition. Because of their contributions to be acknowledged in a future book, they were highly motivated to learn the subject well.

Service

Services at MSU

Department Head Search Committee	2023-2024
Medical Physics Course Sequence Committee	2024
Chair of Placement Exam (Mechanics)	2024
Departmental Seminar Committee	2023-2024
Faculty Mentor, College of A&S	2021-
Faculty Search Committee	2019-2020
Promotion and Tenure Committee	2018-2020
Chair of Ph.D. Preliminary Exam (Mechanics)	2018
Chair of Faculty Search Committee	2017-2018
Chair of Ph.D. Preliminary Exam (Mechanics)	2017
Chair of Departmental Peer Teaching Evaluation Committee	2014-2022
Faculty Search Committee	2016-2017
Chair of Ph.D. Preliminary Exam (Mechanics)	2016
Chair of Faculty Search Committee	2014-2015
Promotion and Tenure Committee	2014-2016
Departmental Seminar Committee	2014-2015
Chair of Ph.D. Preliminary Exam (Mechanics)	2012
College of Arts and Sciences Curriculum Committee	2010-2014
Chair of Placement Exam (Mechanics)	2010
Chair of Ph.D. Preliminary Exam (Mechanics)	2010
Spring Physics Competition Committee	2008-2013
Departmental Seminar Committee	2007-2008
Chair of Ph.D. Preliminary Exam (Mechanics)	2008

Physics Graduate Program Committee	2007-2015
Chair of Ph.D. Preliminary Exam (Mechanics)	2007
Chair of Library Committee	2006-2013

Services and Leadership in Professional/International Societies

Editorial Board Member of Journal: <i>Recent Patent on Signal Processing</i>	2010-2013
<i>Journal of Spectroscopy</i>	2010-
<i>Measurement Science and Technology</i>	2019-
Guest Editor: <i>Applied Science</i>	2017
Guest Editor: A special issue on Recent Advancements in the Research of Aerosol Science & Technology in <i>Molecules</i>	2021
Session Organizer, with two co-organizers, Dust, Bari, Italy	2023
Chair of American Aerosol Association Research Publication Committee <i>Aerosol Science and Technology</i>	2021-2022
Scientific Publication Committee: <i>Aerosol Science and Technology</i>	2019-2022
Chair of the AAAR symposium on Aerosol Physical Chemistry and Microphysics, Session V, (Durham North Carolina)	2022
Chair of the session on Aerosol Physics, 2019 American Aerosol Association for Research Conference (Portland, Oregon)	2019
Scientific Committee Member, International Association of Breath Research	2016-2018
Chair, Physics Working Group of the American Aerosol Association for Research	2018
Chair of the session on Aerosol Physics, American Aerosol Association for Research Conference (St Louis, Missouri)	2018
Vice Chair, Physics Working Group of the American Aerosol Association for Research	2017
Chair of the session on Aerosol Physics, American Aerosol Association for Research Conference (Raleigh, North Carolina)	2017

Symposium Organizer, with two co-organizers, Special Symposium on Single Aerosol Particle Studies, American Aerosol Association for Research Conference (Portland, Oregon)	2016
Chair of the session on Single Aerosol Particle Studies (IV), American Aerosol Association for Research Conference (Portland, Oregon)	2016
Organizer of the session on Fiber Optic Sensors at the Earth and Space 2010 International Conference (Hawaii)	2010

Service to US and International Government Organizations

<i>Proposal Referee</i>	National Science Foundation	various years
	Department of Energy	various years
	Department of Energy (SBIR/STTR)	nearly every year
<i>Review Panel</i>	National Science Foundation:	
	CBET (plasma, combustion, and fire)	2011
	CBET (plasma, combustion) Career Proposals	2011
	CBET (plasma, combustion) Career Proposals	2012
	CMMI (sensors and sensing systems)	2011
	DOE Office Fusion Energy Sciences	2023
<i>Proposal Referee</i>	Ireland Health Research Board	twice
	Hong Kong Research Grants Council	various years
	Swiss National Science Foundation	various years
	European Research Council Executive Agency	2024

Referee Of Publications for International Journals

1. *Analytical Chemistry*
2. *Applied Physics Letters*
3. *Applied Spectroscopy*
4. *Aerosol Science and Technology*

5. *Chemical Physics Letters*
6. *Combustion Science and Technology*
7. *European Physical Journal D: Atomic, Molecular, Optical and Plasma Physics*
8. *Frontiers of Physics*
9. *IEEE Photonics*
10. *IEEE Sensors Journal*
11. *IEEE Trans on Plasma Science*
12. *J. Analytical Atomic Spectrometry*
13. *J. Aerosol Science*
14. *J. Biomedical Optics*
15. *J. Breath Research*
16. *J. Surface Coatings and Technology*
17. *J. Physical Chemistry*
18. *J. Physiology Measurements*
19. *J. Spectroscopy*
20. *Measurement Science and Technology*
21. *Nature*
22. *Optics Express*
23. *Optics Letters*
24. *Philosophical Transactions A*
25. *Photonics Research*
26. *Physics of Plasma*
27. *Plasma Source Science and Technology*
28. *Proceedings of the National Academy of Sciences*
29. *Recent Patents on Signal Processing*
30. *Sensor Letters*
31. *Sensors and Actuators B*
32. *Smart Materials and Structures*
33. *Trends in Biotechnology*

Publications in Refereed Journals

1. Haifa Alali, Yong-Le Pan, Aimable Kalume, Yongxiang Hu, Yehor Surkov, Yuriy Shkuratov, Gorden Videen, **Chuji Wang**, Measurement of circular intensity differential scattering (CIDS) from single optically trapped biological particles, *Journal of Quantitative Spectroscopy and Radiative Transfer*, 330, 109244 (2025).
2. Yukai Ai, **Chuji Wang**, Yong-Le Pan, Gorden Videen, Optical trapping-surface enhanced Raman spectroscopy (OT-SERS) for sensing single bioaerosol particles in air, *Aerosol Science and Technology*, (2024)
doi.org/10.1080/02786826.2024.2436617
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