

CURRICULUM VITAE

- Name:
AOKI, Kazuo
- Present position:
 - Professor Emeritus
Kyoto University, Kyoto 606-8501, Japan
 - Visiting Research Fellow
Mathematics Division, National Center for Theoretical Sciences
National Taiwan University, Taipei 10617, Taiwan
 - Honorary Chair Professor
Department of Mathematics
National Cheng Kung University, Tainan 70101, Taiwan
- Email
- Home Address:
- Date and place of birth:
- Nationality:
- Degree:
Doctor of Engineering, Kyoto University
- Award:
 - Jubilee Professor, Chalmers University of Technology (2002)
 - International Prize "Tullio Levi-Civita" (2013)
- Education:
 - Graduated from the Department of Aeronautical Engineering, Kyoto University in 1973
 - Finished the Graduate School (Master Course) at the Department of Aeronautical Engineering, Kyoto University in 1975
 - Finished the Graduate School (Doctor Course) at the Department of Aeronautical Engineering, Kyoto University in 1978
- Positions:
 - Research Associate, Department of Aeronautical Engineering, Kyoto University from 1978 to 1985

- Associate Professor, Department of Aeronautical Engineering, Kyoto University from 1985 to 1994
 - Professor, Department of Aeronautics and Astronautics, Graduate School of Engineering, Kyoto University from 1994 to 2005
 - Professor, Department of Mechanical Engineering and Science, Graduate School of Engineering, Kyoto University from 2005 to 2016
 - Professor Emeritus, Kyoto University from 2016 to present
 - Visiting Research Fellow, National Center for Theoretical Sciences, National Taiwan University from 2016 to present
 - Honorary Chair Professor, National Cheng Kung University from 2016 to present
- International activities:
 - (Visits for one month and more)
 - Visiting Research Fellow, Italian Government: Politecnico di Milano (one year, 1981 – 1982)
 - Visiting Research Fellow, Italian National Research Council (CNR): Politecnico di Milano (one year, 1982 – 1983)
 - Visiting Professor, CNR:
 - Politecnico di Milano (one month, 1986)
 - Politecnico di Milano, Università di Bologna (one month, 1988)
 - Università di Bologna (one month, 1989)
 - Università di Parma (one month, 1993)
 - Invited Professor, Université Pierre et Marie Curie (Paris 6) (two months, 1991)
 - Visiting Scientist, the Netherlands Organization for Scientific Research (NWO): Leiden University (one month, 1996)
 - Invited Professor, Université Paris 7 (two months, 1997)
 - Visiting Scientist, the Royal Swedish Academy of Sciences (RSAS): Chalmers University of Technology (one month, 1999)
 - Invited Professor, Université Paris 7 (one month, 2001)
 - Invited Professor, Université de Provence (one month, 2001)
 - Invited Professor, Institut Henri Poincaré (one month, 2001)
 - Jubilee Professor (150th Anniversary Visiting Professor), Chalmers University of Technology (three months, 2002)
 - Invited Professor, Université Paul Sabatier (Toulouse 3) (one month, 2004)
 - Visiting Scientist, Brazilian Academy of Sciences (ABC): Universidade Federal do Paraná (one month, 2005)
 - Invited Professor, Université Bordeaux 1 (one month, 2005)
 - Visiting Professor, Università di Roma “La Sapienza” (Roma 1) (one month, 2005)
 - Visiting Fellow, Weierstrass Institute of Applied Analysis and Stochastics (one month, 2006)
 - Invited Professor, Université Bordeaux 1 (one month, 2008)
 - Invited Professor, École Polytechnique (one month, 2009)
 - Senior Researcher, Plasmax Project, La Fondation de Coopération Scientifique STAE:
 - Université Paul Sabatier (Toulouse 3) (three months, 2010)

- Visiting Fellow, Isaac Newton Institute for Mathematical Sciences (one month, 2010)
- Research Fellow, Institute for Computational and Experimental Research in Mathematics (ICERM), Brown University and Peabody Visiting Professor, Department of Mechanical Engineering, Massachusetts Institute of Technology (two months, 2011)
- Invited Professor, École Polytechnique (one month, 2013)
- Invited Professor, École Polytechnique (one month, 2015)

(Conferences)

- Member of the Organizing Committee of *the Fourth International Workshop on Mathematical Aspects of Fluid and Plasma Dynamics* (Oct. 2 – 5, 1991, Kyoto, Japan)
- Member of the Advisory Committee of *the International Symposia on Rarefied Gas Dynamics* (from July, 2000 to July 2016)
- Chairman of the Organizing Committee of *the Sixth International Workshop on Mathematical Aspects of Fluid and Plasma Dynamics* (Sept. 19 – 23, 2004, Kyoto, Japan)
- Member of the Organizing Committee of *the 26th International Symposium on Rarefied Gas Dynamics* (July 19 – 24, 2008, Kyoto)
- Member of the Scientific Committee of *the Summer School on Methods and Models of Kinetic Theory (M & MKT)* (Porto Ercole, Italy) (from January 2008 to June 2016)
- Member of the Organizing Committee of *the ICERM Workshop on Boltzmann Models in Kinetic Theory* (Nov. 7 – 11, 2011, Providence, USA)
- Organizing Member of *the Conference on Kinetic Theory and Related Fields: Theoretical and Numerical Approaches* (Sept. 24 – 28, 2012, Kyoto, Japan)
- Organizing Member of *the RIMS Workshop, Kinetic Modeling and Related Equations: Conference in Memory of Seiji Ukai* (Oct. 28 – 30, 2013, Kyoto, Japan)
- Organizing Member of *the Conference, Recent Advances on Particle Systems in Kinetic Theory: A Celebration of Sasha Bobylev's Impact in the Mathematics and Computations of Kinetic Theory* (May 8 – 12, 2017, Austin, USA)
- Organizing Member of *the International Conference Nonlinear Analysis: Kinetic Theory, Gas Dynamics, and Related Fields* (October 28 – 31, 2017, Taipei, Taiwan)

(Editorial boards)

- Member of the Editorial Board of *Kinetic and Related Models* (American Institute of Mathematical Sciences) (from January 2007 to December 2011)
- One of the three Editors-in-Chief of *Kinetic and Related Models* (American Institute of Mathematical Sciences) (from January 2012 to present)
- Member of the Advisory Board of *Fluid Dynamics Research* (IOP Publishing) (from January 2009 to present)
- Member of the Advisory Board of *Rivista Matematica della Università di Parma* (Università di Parma) (from January 2010 to present)
- Member of the Editorial Board (Associate Editor) of *Acta Applicandae Mathematicae* (Springer Netherlands) (from January 2010 to present)

- Member of the Editorial Board (Associate Editor) of *Communications in Computational Physics* (Global Science Press) (from January 2010 to December 2016)
- Member of Advisory Editorial Board of the series *Modeling and Simulation in Science, Engineering and Technology* (Springer–Birkäuser Boston) (from January 2015 to present)

List of 10 Most Relevant Papers

1. P. Andries, K. Aoki, and B. Perthame, "A consistent BGK-type model for gas mixtures," *J. Stat. Phys.* **106**(5/6), 993–1018 (2002).
2. K. Aoki, H. Yoshida, T. Nakanishi, and A. L. Garcia, "Inverted velocity profile in the cylindrical Couette flow of a rarefied gas," *Phys. Rev. E* **68**(1), 016302:1–11 (2003).
3. K. Aoki, P. Degond, S. Takata, and H. Yoshida, "Diffusion models for Knudsen compressors," *Phys. Fluids* **19**(11), 117103:1–21 (2007).
4. K. Aoki, P. Degond, and L. Mieussens, "Numerical simulations of rarefied gases in curved channels: Thermal creep, circulating flow, and pumping effect," *Commun. Comput. Phys.* **6**(5), 919–954 (2009).
5. K. Aoki, T. Tsuji, and G. Cavallaro, "Approach to steady motion of a plate moving in a free-molecular gas under a constant external force," *Phys. Rev. E* **80**(1), 016309:1–13 (2009).
6. T. Tsuji and K. Aoki, "Decay of a linear pendulum in a free-molecular gas and in a special Lorentz gas," *J. Stat. Phys.* **146**(3), 620–645 (2012).
7. S. Taguchi and K. Aoki, "Rarefied gas flow around a sharp edge induced by a temperature field," *J. Fluid Mech.* **694**, 191–224 (2012).
8. T. Tsuji and K. Aoki, "Moving boundary problems for a rarefied gas: Spatially one-dimensional case," *J. Comp. Phys.* **250**, 574–600 (2013).
9. K. Aoki, S. Kosuge, T. Fujiwara, and T. Goudon, "Unsteady motion of a slightly rarefied gas caused by a plate oscillating in its normal direction," *Phys. Rev. Fluids* **2**(1), 013402: 1–33 (2017).
10. S. Kosuge and K. Aoki, "Shock-wave structure for a polyatomic gas with large bulk viscosity," *Phys. Rev. Fluids* **3**(2), 023401: 1–42 (2018).