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Curriculum Vitae

Hideaki Takabe

Office

Current position: Professor Emeritus, Osaka University, Japan

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Educational Background

- 1 **1971.4-1975.3** Degree of B. E.
Department of Electric Engineering, Osaka University
Thesis Advisor Prof. Chiyoe Yamanaka
- 2 **1975.4-1980.3** Ph. D. Degree
Graduate School of Engineering, Osaka University
Thesis Advisor Prof. Chiyoe Yamanaka
Title of Ph. D Thesis: “Theoretical Study of Laser Fusion by Implosion”

Research Experience

1. **1980.4 --- 1980.8** Post-doctor
Institute of Laser Engineering, Osaka University
Supervisor: Prof. Chiyoe Yamanaka
2. **1980.9 --- 1981.9** Guest Researcher
Max-Planck Institute for Plasma Physics, Garching by Munich, West Germany
<https://www.mpg.de/151634/plasmaphysik-garching>
Supervisor: Dr. Peter Mulser
3. **1981.10 --- 1982.9** Research Associate
Department of Nuclear and Energy Engineering, University of Arizona, USA
<https://www.arizona.edu/>
Supervisor: Prof. Richard L. Morse
4. **1982.10 --- 1989.1** Research Associate
Institute of Laser Engineering, Osaka University
<https://www.ile.osaka-u.ac.jp/eng/>
5. **1989.1 --- 1991.4** Lecturer
Institute of Laser Engineering, Osaka University
6. **1991.4 --- 1997.4** Associate Professor
Institute of Laser Engineering, Osaka University
7. **1997.4 --- 2015.9** Professor
Institute of Laser Engineering, Osaka University
Department of Physics, Graduate School of Science, Osaka University
(1997 – 2015)

Department of Space and Earth Science, Graduate School of Science, Osaka University (2000 - 2015)

Chairman, International Physics Course, Graduate School of Science, Osaka University (2009 - 2014)

8. **2015.10.1-- 2020.8.31** Professor, Dr.
Institute of Radiation Physics, Helmholtz Center, Dresden, HZDR,
Bautzner Landstraße 400, 01328 Dresden, Germany (www.hzdr.de)
Professor Emeritus, Osaka University, Japan
Cross-appoint Professor, Institute for Laser Science, Osaka University. (2017-2020)
9. **2020.9.1--** Invited Professor
Faculty of Engineering, Osaka University

Major Research Field

Plasma Physics, Astrophysics, and Computational Physics

Academic Honors and Awards

Young Researcher Award, Japan Society of Lasers (1989)

Citation: For his contribution to the development of an integrated laser fusion code ILESTA

Fellow, American Physical Society (2000 -)

Citation: For his theoretical and numerical investigations leading to the universally used ablation-front Rayleigh-Taylor dispersion curve, and his visionary role in shepherding the emerging field of laser-physics.

Prize Winner of Edward Teller Medal, American Nuclear Society (2003)

Citation: In recognition of his research and leadership in Inertial Fusion Science and Applications

Honorary Professor, National Astronomical Observatory, China (2006 - 2011)

Guest Professor, Shanghai Jiao Tong University, China (2008 -2013)

Professor Emeritus, Osaka University (2015 -)

John Dawson Award “Excellence in Plasma Physics Research”, American Physical Society (2020).

Citation: For generating Weibel-mediated collisionless shocks in the laboratory, impacting a broad range of energetic astrophysical scenarios, plasma physics, and experiments using high energy and high-power lasers conducted at basic plasma science facilities.

Service in National and International Committees

Member of Editorial Boards, Japan Society of Plasma and Fusion (2000-2002)

Chair, Division of Plasma Physics, Japan Physical Society (2000-2002)
Member of Council, the Japan Physical Society (2002-2004, 2004-2006)
Member of Council, the Association of Asia Pacific Physical Societies (AAPPS)
(2005-2007, 2008-2010)
Member of Steering Committee, Earth Simulator, Japan (2006-2009)
Chair, Steering Committee, Super Science High School, Tamashima High School,
Okayama, Japan (2007-2011)
Advisor, Japan Science & Technology Agency (JST) (2006-2008)
Chairman, Conference on Computational Physics (IUPAP), Oct. 14-18, 2012, Kobe,
Japan
Member of the Science on NIF Committee, Lawrence Livermore National Laboratory,
Livermore, CA, USA (2010 – 2013)
Member of C20: Computational Physics, IUPAP (2012-2016)

Publication list

Click here; <https://scholar.google.com/citations?user=IJ9JjsAAAAJ>
Recent book: <https://link.springer.com/book/10.1007/978-3-030-49613-5>

Brief Introduction of Hideaki Takabe

Professor, Institute of Radiation Physics, Helmholtz Zentrum Dresden Rossendorf (HZDR), Dresden, Germany and Professor-Emeritus, Osaka University, Japan. He received a Ph.D. degree from Osaka University and continued research at Max-Planck Institute for Plasma Physics, Germany, and the University of Arizona, USA. After that, he worked for the Institute of Laser Engineering, Osaka University until early-retirement in 2015. His research fields are plasma physics, laser fusion, laboratory astrophysics, and HED physics. He is known for Takabe formula in laser fusion and also proposed the new field of laboratory astrophysics with intense lasers. He has taught Plasma Physics and Computational Physics in the School of Engineering and School of Science for more than 20 years. He committed the globalization of Osaka University. He was also council members of both of the Physical Societies of Japan (JPS) and the Association of Asia-Pacific Physical Society (AAPPS), where he founded the division of plasma physics (DPP). He received the Edward Teller medal in 2003 from American Nuclear Society and John Dawson Prize in 2020 from American Physical Society. He is a fellow of the American Physical Society (2000~).

Takabe personal web-site (in Japanese) <http://akitakabe.news.coocan.jp/>