Curriculum Vitae

Hitoshi Murayama
MacAdams Professor of Physics and Center for Japanese Studies,
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Faculty Senior Staff, Lawrence Berkeley National Laboratory, Berkeley, CA 94720
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EDUCATION

March 1986 : B.Sc. in Physics, University of Tokyo
March 1991 : Ph.D. in Theoretical Physics, University of Tokyo

APPOINTMENTS

Apr 1991 – Jun 1995	: Research Associate at Tohoku University
Sep 1993 – Jun 1995	: Post-doctoral Fellow at Lawrence Berkeley Laboratory
Jul 1995 – Jun 1998	: Assistant Professor of Physics, University of California, Berkeley
Jul 1998 – Jun 2000	: Associate Professor of Physics, University of California, Berkeley
Jul 2000 –	: Professor of Physics, University of California, Berkeley
Jul 2004 –	: MacAdams Professor of Physics, University of California, Berkeley
Oct 2007 – Oct 2018	: Founding Director, Kavli IPMU, University of Tokyo
Jan 2016 –	: Visiting Scientist, CERN
Feb 2016 –	: Core Faculty, Center for Japanese Studies, University of California, Berkeley
Oct 2018 – Mar 2019	: Professor, Kavli IPMU, University of Tokyo
Apr 2019 –	: University Professor, Kavli IPMU, University of Tokyo
Apr 2021 –	: Beyond AI Institute, The University of Tokyo

AWARDS AND HONORS

1996	: Sloan Research Fellow
2002 Oct 31	: Nishinomiya Yukawa Commemoration Prize in Theoretical Physics
2003 Fall	: Fellow of American Physical Society
Aug 2003 – Jun 2004	: Member, School of Natural Sciences, Institute for Advanced Study, Princeton
2004–	: MacAdams Professor
2005	: Miller Professor
2008–	: Member of Science Council of Japan
2011	: Japanese Paperback Grand Prize, "*What is the Universe made of?*"
2012	: "Passion without borders" designation by Japanese Cabinet Office
2013–	: Member of American Academy of Arts and Sciences
2016	: One of 100 greatest thinkers `http://genius100visions.com`
2016	: Breakthrough Prize in Fundamental Physics (as a KamLAND member)
2017	: Humboldt Research Award
2022	: Fellow of American Association for the Advancement of Science

SELECTED PROFESSIONAL ACTIVITIES

- Particle Data Group, responsible on the sections "Axions and Other Very Light Bosons," "Supersymmetric Particle Searches," and "Neutrino Oscillation"
- DOE/NSF High Energy Physics Advisory Panel (HEPAP) Subpanel on Long Range Planning for U.S. High Energy Physics (2001–2002)

- National Research Council Neutrino Facilities Assessment Committee (2002)
- Fermilab Physics Advisory Committee (2002–2006)
- KEK Lepton Collider Physics Advisory Committee (2003–2006)
- American Physical Society, Division of Particles and Fields, Executive Committee and Education and Outreach Committee (Chair), (2002–2006)
- DOE/NSF High Energy Physics Advisory Panel (HEPAP) Quantum Universe Committee, Discovering the Quantum Universe Subpanel
- SLAC Policy Committee (2007–2012)
- EUROnu International Advisory Committee (2009–2011)
- CERN Scientific Policy Committee (2010–2015)
- MIT Dean's review committee on LNS (2011–2015)
- Linear Collider Directorate Deputy Director (2013–2020)
- High-Energy Physics Advisory Panel (HEPAP) (2014–2016) to DOE and NSF
- Chinese Electron Positron Collider International Advisory Board (2015–)
- Scientific Strategy Committee, National Astronomical Observatory of Japan (2019–)
- Convener, BSM model building, Snowmass Community Study (2020–2022)
- International Linear Collider, International Development Team, Physics and Detector Working Group (WG3), Chair (2020–2022)
- Expert Panel for Creating World-Competitive Research Universities, Cabinet Office of Japan (2021–2022)
- Particle Physics Project Prioritization Panel (P5), Chair (2022–2023)
- SLAC Board of Oversight Science and Technology Committee, (2024–)

SELECTED PUBLICATIONS (citation counts by INSPIRE on August 28, 2023)

- "Some Exact Results in QCD-like Theories," Hitoshi Murayama, *Phys.Rev.Lett.* **126** (2021) 25, 251601 (22 citations)
- "Testing the Seesaw Mechanism and Leptogenesis with Gravitational Waves," Jeff A. Dror, Takashi Hiramatsu, Kazunori Kohri, Hitoshi Murayama, and Graham White, *Phys.Rev.Lett.* **124** (2020) 4, 041804 (102 citations)
- "2, 84, 30, 993, 560, 15456, 11962, 261485, ...: Higher dimension operators in the SM EFT," Brian Henning, Xiaochuan Lu, Tom Melia, Hitoshi Murayama, *JHEP* **08** (2017) 016, *ibid* **09** (2019) 019 (erratum) (264 citations)
- "Model for Thermal Relic Dark Matter of Strongly Interacting Massive Particles," Yonit Hochberg, Eric Kuflik, Hitoshi Murayama, Tomer Volansky, Jay G. Wacker, *Phys. Rev. Lett.* **115** (2015) 021301 (314 citations)
- "Unified Description of Nambu-Goldstone Bosons without Lorentz Invariance," Haruki Watanabe, Hitoshi Murayama, *Phys. Rev. Lett.* **108** (2012) 251602 (199 citations)
- "Gauge theories on an interval: Unitarity without a Higgs." Csaba Csaki, Christophe Grojean, Hitoshi Murayama, Luigi Pilo, John Terning, *Phys. Rev.* **D69** (2004) 055006 (55 citations)

- "First results from KamLAND: Evidence for reactor anti-neutrino disappearance." KamLAND Collaboration (K. Eguchi (Tohoku U.) et al.) *Phys. Rev. Lett.* **90** (2003) 021802 (3317 citations)
- "Neutrino mass anarchy." L. J. Hall, H. Murayama and N. Weiner, *Phys. Rev. Lett.* **84** (2000) 2572 (344 citations)
- "Gaugino mass without singlets." Gian F. Giudice, Markus A. Luty, Hitoshi Murayama, Riccardo Rattazzi, *JHEP*, **9812** (1998) 027 (1577 citations)
- "Precision study of supersymmetry at future linear e^+e^- colliders." Toshifumi Tsukamoto, Keisuke Fujii, Hitoshi Murayama, Masahiro Yamaguchi, and Yasuhiro Okada, *Phys. Rev.* **D51** (1995) 3153-3171 (209 citations)
- "Nucleon decay in the minimal supersymmetric SU(5) grand unification." J. Hisano, H. Murayama, T. Yanagida, *Nucl. Phys.* **B402** (1993) 46-84 (501 citations)
- "Cosmological constraints on the light stable gravitino." T. Moroi, H. Murayama, Masahiro Yamaguchi, *Phys. Lett.* **B303** (1993) 289-294 (623 citations)

SELECTED RECENT PRESENTATIONS

- "Theory vision: the questions before us," Snowmass Community Summer Study Workshop, July 17, 2022 at the University of Washington, Seattle
- Named lectureship: Bethe lecturer (Cornell), Dirac lecturer (Florida State), Arnold Sommerfeld lecturer (Ludwig–Maximillian), Bethe lecturer (Bonn), Nambu lecturer (Osaka)
- "Future Experimental Programs," Nobel Symposium on LHC results, Krusenberg, Sweden, sponsored by Nobel Foundation, May 2013
- "The View Ahead," Invited concluding talk at Lepton Photon 2013, San Francisco, USA, Jun 2013
- "Value of Basic Science and Globalization," invited presentation at Japanese Council for Science and Technology Policy chaired by Prime Minister Shinzo Abe, Dec 2013.
- "Science for peace and development today and tomorrow," Invited keynote presentation, CERN 60 years of Science for Peace and Development, United Nation Headquarters, New York, Oct 2014 `http://www.ipmu.jp/en/node/2050`

PUBLIC OUTREACH

- Nine popular science books
- Many public lectures in US, Japan, Germany, Australia, China, Taiwan, UK, Spain, France
- Lectures to students from developing countries (Nepal, Pakistan, Afghanistan, Vietnam, Bangladesh, and various African countries)
- Coursera "From the Big Bang to Dark Energy," more than 70,000 students