

Curriculum Vitae

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Hannu Erkki Juhani Koskinen

Born January 7, 1954, Keuruu, Finland

University degrees

- *Master of Science*, University of Helsinki, Helsinki, Finland, April 5, 1979
- *Licentiate of Philosophy*, University of Helsinki, Helsinki, Finland, May 5, 1983
- *Doctor of Philosophy*, Uppsala University, Uppsala, Sweden, November 20, 1985
- *Docent in Space Physics* at the University of Helsinki, June 14, 1989.

Present position

- *Professor Emeritus in Space Physics* at the Department of Physics of the University of Helsinki, October 1, 2018 – September 30, 2023

Previous professional positions

- *Professor in Space Physics* at the Department of Physics of the University of Helsinki, August 1, 1997 – September 30, 2018
 - *Director of the Department of Physics*, from January 1, 2014 – December 31, 2017.
 - *Director of the Division of Geophysics and Astronomy*, January 1, 2010 – December 31, 2013
- *Director of Kumpula Space Centre*, January 1, 2006 – April 25, 2014
- *Senior Scientist* funded by the Academy of Finland, August 1, 2008 – July 31, 2009.
- *Head of the Space Research Unit* of the Finnish Meteorological Institute, Helsinki, October 1, 2005 – September 30, 2006. (On leave from the University of Helsinki)
- *Head of the Space Physics Division / Research Group*, Finnish Meteorological Institute, 1991–1997
- *Senior Research Scientist*, Finnish Meteorological Institute, Helsinki, 1987 – 1991.
- *Research Assistant / Associate Scientist*, Uppsala Ionospheric Observatory / Swedish Institute of Space Physics, Sweden, 1981–1987.

Scientific work at other institutes

- Cornell University, School of Electrical Engineering, Ithaca, NY, U.S.A., June 21 – July 9, 1982
- Massachusetts Institute of Technology, Center for Space Research, Cambridge, MA, U.S.A., as a Visiting Scientist, November 9, 1984 – March 31, 1985
- Laboratory of Atmospheric and Space Physics, University of Colorado, Boulder, CO, USA. Visiting Scholar, September 1 – December 13, 2008.
- International Space Science Institute, Bern, CH. Visiting Scientist, February 2 – April 30, 2009.

Academies

- International Academy of Astronautics, Member of Section 1 (Basic Sciences) of the, 2009– (Corresponding member 2004–2009)
- Finnish Society of Sciences and Letters, Member 2005 –; Member of the Board 2011 – 2017; Vice-Chair of the Board, 2018 – 2020.
- Finnish Academy of Sciences and Letters, Member 2006 –
- Academia Europaea, Member 2017 –

Honors and awards

- 1997 Editors' Citation for Excellence in Refereeing for JGR-Space Physics.
- Teacher of the year 2001, elected by students of the Department of Physical Sciences of the University of Helsinki.
- Theodor Homén's price of the Finnish Society of the Sciences and Letters, 2010.
- Knight, First Class, of the Order of the White Rose of Finland, 2015.

Main activities within the European Space Agency

- Member of the Solar System Working Group of ESA, 1993–1996.
- Member of the Rosetta SSP Advisory Group of ESA, 1994.
- Member of Assessment Study Science Team for the STORMS mission, Consultant to ESA, 2000.
- Science Programme Committee, Finnish Delegate, 2002 – 2106
- Space Situational Awareness Programme
 - Finnish Delegate in the Programme Board, 2010 –
 - Chair of the Programme Board, 2011 – 2014
 - Member of the Science Advisory Group 2019 –

National committees

- Finnish Space Committee: Secretary of the Research and Education section 1989 – 1992; Advisor 2004–2010, Chairman of the science support group, 2010 – 2016
- Finnish National Committee of COSPAR (1998 –; Chair 2000 – 2011), IUGG (1998 – 2015), URSI (2000 – 2017), Arctic and Antarctic Research, (2018 –)
- Member of the Steering Committee of the *Graduate School in Solar-Terrestrial Physics*, 1995 – 1998 and of the Steering Committee of the *Graduate School in Astronomy and Space Physics*, 1999 – 2013
- Member of the Board of Metsähovi Radio Observatory, Member 2006 – 2011
- Member of the Board of the Finnish Centre for Astrophysics with ESO (FINCA), 2010 –
- Member of the Publications Forum in Finland, 2011 – 2017
- Member of the Board of Helsinki Institute of Physics, 2014 – 2018 (substitute member 2010-2013)
- Member of the Board of the LUMA Centre of University of Helsinki, 2014 – 2017
- Member of the Board of Kumpula Space Centre, 2014 –

Bi-lateral, international, and foreign committees

- Secretary of the Working Group for Space Activities of the Science and Technology Commission between Finland and Russia, 1992 – 1997.
- Adherent Representative from Finland in the Scientific Committee on Solar-Terrestrial Physics (SCOSTEP), 1994 – 2012
- Member of S-RAMP Steering Committee of SCOSTEP, 1998 – 2002
- Representative of Finland in COSPAR, 2000 – 2011
- Member of the European Space Science Committee (ESSC) of ESF, 2000 – 2003
- Member of EISCAT Council, 2001 – 2003
- Finnish Delegate in the ESA Science Programme Committee, 2002 – 2016
- Member of the MOWG of Living With a Star (LWS) program of NASA, 2003 – 2005
- Finnish Delegate in the Programme Board of the Space Situational Awareness Preparatory Programme, August 2010 – June 2011; Chair of the Programme Board, July 2011 – June 2014
- Chairmanships with the Swedish Research Council panels NT-3: Vice-Chair 2013, 2014; Chair 2015, 2016
- Member of Europlanet Board, 2017 –
- ESF College of Expert Reviewers, 2018 – 2021

Supervision and other activities with doctoral dissertations

- Main supervisor of 8 PhD theses (co-supervisor or responsible professor of 20 theses)
- Faculty opponent of 5 PhD dissertations; Preliminary examiner of 16 Finnish PhD theses

Participation in experimental space projects

- Co-investigator in the wave experiment on the Swedish Viking satellite (launched 1986)
- Co-investigator in particle and wave instruments on the Swedish Freja satellite (launched 1992).
- Co-investigator in the Swedish microsatellite Astrid (launched 1995)
- Co-investigator in the PROMICS-3 plasma instruments on the two Russian Interball spacecraft (launched 1995 and 1996).
- Co-investigator in the ASPERA-C particle instrument on the Russian Mars-96 spacecraft (destroyed in launch failure, 1996)

- Positions in the Rosetta Lander project (launched 2004)
 - Member of the Rosetta Lander (Philae) Steering Committee 1995 – 2004 and 2007 – 2016, Chairman of the Steering Committee 2009 – 2013
 - Member of the RoLand Science Advisory Group (for RoLand instrument selection, 1995)
- Co-I in the ion composition analyzer ICA on Rosetta (launched March 2, 2004)
- Co-investigator in ASPERA-3 instrument on the ESA Mars Express mission (launched 2003)
- Lead proposer of the STORMS mission for the ESA F2/F3 missions, January 2000.
- Chair of the Finnish Steering Committee of the SPEDE instrument for SMART-1 spacecraft (launched 2003), 2001 – 2003.
- Co-investigator in ASPERA-4 instrument on the ESA Venus Express mission (launched 2005)
- Co-investigator in the SIXS X-ray instrument for the ESA BepiColombo spacecraft
- Member of the Science Support Group of the student satellite Aalto-1 (launched 2017), 2011 – 2017
- Member of the ESA Euclid Steering Committee, 2012 – 2018

ESA contracts

- Study manager of “Study of plasma and energetic electron environment and effects”, 1996–1998.
- Manager of the FMI participation in the "ESA Space Weather Study", 2000–2001
- Study manager of “Magnetospheric Propulsion (eMPi)”, 2002–2004.

EU projects

- Partner in the FP7 study “SPACECAST – Protecting space assets from high energy particles by developing European dynamic modeling and forecasting capabilities”, 2011 – 2014.

Editorial positions:

- Editor in Chief of *Arkhimedes*, a Finnish Journal for Physicists and Mathematicians, 6 issues per year, 2005–2007; Editor 2008.
- Baker, D., Balogh, A., Gombosi, T., Koskinen, H.E.J., Veronig, A., von Steiger, R. (editors), *The Scientific Foundation of Space Weather*, Space Sciences Series of ISSI, Springer Nature B.V. 2019, ISBN 978-94-024-1587-2.
- Hetemäki, I., Koskinen, H., Pulkkinen, T., Väliverronen, E., *kaikenlaista rohkeutta*, Gaudeamus Oy, 2019.

Acted as a scientific referee or evaluator for

- J. Geophys. Res.; Geophys. Res. Lett.; Planet. Space Sci.; Ann. Geophysicae; J. Atmosph. and Solar-Terr. Phys.; J. Geophys. and Geomagn.; Physics of Plasmas; EOS; AGU monographs and other refereed conference proceedings; NASA, NSF, NERC, EU, ESF, INTAS, etc. applications; Academy of Finland; Austrian Science Fund, Canadian Space Agency; Chilean Research Fund Council; Research Council of Norway; Royal Swedish Academy of Sciences; Swedish National Space Board; Swedish Research Council; Väisälä Foundation; Magnus Ehmrooth Foundation; Alfred Kordelin Foundation, Suomen Kulttuurirahasto, Max-Planck-Gesellschaft, Universities of Helsinki, Oulu, Turku, Umeå, KTH