

1. Personal details:**Name:** Muinonen, Karri Olavi**ORCID ID:** 0000-0001-8058-2642**Year of birth:** 1961**Citizenship:** Finland**Website:** <https://wiki.helsinki.fi/display/PSR/Karri+Muinonen>**2. Education and degrees completed:**

Doctor of Philosophy, Sept. 1990 & Master of Science, May 1986, theoretical physics, University of Helsinki. **Docentships:** Astronomy, University of Oulu, 1995; Space astronomy, University of Helsinki, 1994.

3. Current employment:

Academy Professor, Department of Physics, University of Helsinki, September 1, 2021-; Professor of Astronomy (Planetary Astronomy & Geodesy), Department of Physics, University of Helsinki & Finnish Geospatial Research Institute FGI, National Land Survey, March 1, 2009- ; Adjunct Scientist, Lowell Observatory, Flagstaff, Arizona, February 1993-

4. Former employment: Astronomer (permanent staff member), Observatory, University of Helsinki: Aug. 1992 - Febr. 2009; NASA Postdoctoral Fellow, Lowell Observatory, Arizona, U.S.A., Sept. 1990 - Jan. 1993. **Leaves of absence:** University Researcher, University of Helsinki, 23 months; Special Researcher, University of Helsinki, 36 months; Academy Research Fellow, Academy of Finland, May 1998 - July 2003; Visiting Academy Research Fellow, Astronomical Observatory of Torino, Italy, Aug. 2001 - July 2002; Director, Observatory, University of Helsinki: Sept. 1999 - Dec. 2000; Research Scientist, ABB Corporate Research and University of Helsinki, Jan.-Apr. 1998; Visiting Special Researcher, Astronomical Observatory, Uppsala University, Sweden: June-Dec. 1997; Research Fellow, University of Pisa, Jan. - June 1996.

5. Career breaks: None.

6. Personal research funding and grants:

Planetary system in scattered light (Acad. Professor, project funding, 1st part), Acad. Finland, 2021–2024, 660 000 euros

Planetary system in scattered light (Acad. Professor, position), Acad. Finland, 2021–2026, 798 750 euros

Planetary spectrometry, Acad. Finland, 2019-2023, 399 323 euros, Consortium total 756 725 euros

The Earth spherical albedo from space-geodetic measurements, Acad. Finland, 2016-2020, 446 554 euros, Consortium total 843 253 euros

Scattering and Absorption of Electromagnetic Waves in Particulate Media (SAEMPL), ERC Advanced Grant, 2013-2018, 2.75 million euros

Electromagnetic Wave Scattering by Complex Random Media, Acad. Finland, 2012–2016, 420 613 euros, Consortium total 1.2 million euros,

Light Scattering by Solar-System Small Particles, Acad. Finland, 2009–2012, 500 000 euros

European Leadership in Space Astrometry (ELSA), European Commission Marie Curie Research Training Network (MCRTRN), Participant No. 9, University of Helsinki, 2006-2010, 199 017 euros

Light scattering by Gaussian random media (Academy Research Fellow -post), Acad. Finland, 1999–2003, 260 000 euros

7. Leadership and supervision experience:

Supervision: 10 postdoctoral researchers; 18 Ph.D. theses, University of Helsinki, 2 Ph.D. theses elsewhere; 3 Ph.Lic. and 15 M.Sc. theses, 2 Ph.D. theses under supervision.

Leader of research work: Planetary-System Research -group, University of Helsinki, leader, 1998-; ESA Comet Interceptor Mission, Associated Scientist, 2019-; NASA DART Mission, Investigation Team Member, 2019-; ESA Hera Mission, ASPECT Asteroid Spectrometer, Senior Scientist, 2015-; Gaia, 2001-: EU Cost Action CA18104: Revealing the Milky Way with Gaia, Member of Management Committee, National Coordinator, 2019-2023; BepiColombo, 2004-: MIXS Mercury Imaging X-ray Spectrometer, Co-Principal Investigator, 2004-; SIMBIO-SYS Spectrometer and Imagers for MPO BepiColombo Integrated Observatory System, Co-Investigator; SIXS Solar Intensity X-ray and particle Spectrometer, Co-Investigator.

8. Teaching merits:

Professor in charge of Astronomy Curriculum, Dept. Physics, Univ. Helsinki, 2010-. Teaching experience on 10 courses/seminars. In the courses, students have been interactively involved in problem-based learning including topical presentations with opponents.

9. Experience of organizing scientific meetings:

2023: Chairman, Co-Organizer: BepiColombo SIMBIO-SYS Science Team meeting, Pyhänturi, Finland, January 9-13, 2023, 30 participants;

2021, Chairman, Asteroids and Comets: revealing the history of the Solar System (Working Group 3, Milky Way Gaia Cost Action), Helsinki, Finland, 2021 February 16-18, est. 100 participants (hybrid in situ and remote attendance);

2017: Chairman, ERC/SAEMPL Workshop on Spectroscopy, Photometry, and Polarimetry of Airless Solar System Objects, Tuusula, Finland, 2017 Sept. 14-15, 30 participants;

2014: Chairman, Organizer, Asteroids, Comets, Meteors, Helsinki, Finland, June 30 - July 4, 2014, 500 participants;

2010: Chairman, Organizer, 12th Conference on Electromagnetic and Light Scattering, University of Helsinki, Finland, 2010 June 28 -July 2, 80 participants;

10. Patents, inventions, awards and honours:

Patent No. 196 10 438 in Germany by Dr. Christian Sasse, Dr. Karri **Muironen**, Mr. Jukka Piironen, and Mr. Hermann Spegassner, 1998 November 26.

Patent No. US 7 920 262 B2 in the U.S.A. by Dr. Gordon W. Videen and Prof. Karri O. **Muironen**, 2011 April 5

Journal of Quantitative Spectroscopy and Radiative Transfer 50-Year Milestone Award for Muironen et al. (Reference 22), 2010; European Space Sciences Committee, Member, 2012-2018; Finnish Academy of Science and Letters, Member, April 21, 2017-; In 1991, asteroid No. 4665 named “Muironen”.

11. Other key scientific or academic merits:

Reviewer in Professorships: 1. Reviewer in Habilitation Dissertations: 1. Opponent in Ph.D.–Dissertations: 7. Reviewer or Committee Member in Ph.D.–Dissertations: 25. Articles reviewed: 133. Proposals reviewed: 31. Memberships in working groups: The NOT Transient Explorer Instrument (NTE), Board Member, 2019-.

12. Memberships and positions of trust in scientific societies:

Memberships in Organizing Committees for Compilation Works:

Asteroids IV, Space Science Series, University of Arizona Press, Arizona, U.S.A., 2015.

Positions of trust:

Nordic Optical Telescope (NOT), Council Member, 2020-; J. Quantitat. Spectrosc. Radiat. Transf., Associate Editor 2011-2021, Honorary Associate Editor 2021-; Finnish National Committee of Astronomy, Chairman 2019-2023, Member 2023-; National Astronomy Education Coordinator, 2020-2022; International Astronomical Union, Member 1991-.

13. Link to complete Curriculum Vitae:

<https://wiki.helsinki.fi/display/PSR/Karri+Muironen>