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Research outputs

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Optimal cubature on the sphere and other orientation averaging schemes

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Polarization of light backscattered by small particles

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A three-parameter magnitude phase function for asteroids

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Muinonen, K., Penttilä, A., Cellino, A., Belskaya, I. N., Delbo, M., Lvasseur-Regourd, A. C. & Tedesco, E. F., 2009, In: *Meteoritics and Planetary Science*. 44, p. 1937-1946 10 p.

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Statistical analysis of the polarization of asteroids and comets

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The effect of the properties of porous media on light scattering

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C-band scattering simulation of a scots pine shoot

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Coherent backscattering effects with Discrete Dipole Approximation method

Penttilä, A. & Lumme, K., 2007, *Proceedings of the 10th Conference on Electromagnetic & Light Scattering*. p. 157-160 4 p.

Comparison between discrete dipole implementations and exact techniques

Penttilä, A., Zubko, E., Lumme, K., Muinonen, K., Yurkin, M. A., Draine, B., Rahola, J., Hoekstra, A. G. & Shkuratov, Y., 2007, In: *Journal of Quantitative Spectroscopy & Radiative Transfer*. 106, p. 417-436 20 p.

Asteroid taxonomy and polarization

Penttilä, A., 2006, *9th conference on electromagnetic and light scattering by nonspherical particles: theory, measurements, and applications*.

Comparison between discrete dipole and exact techniques

Penttilä, A., Zubko, E., Lumme, K., Muinonen, K., Yurkin, M., Shkuratov, Y. & Hoekstra, A., 2006, *Proceedings of the Ninth Conference on Electromagnetic and Light Scattering by Nonspherical Particles*. p. 227-230 4 p.

Light scattering efficiency of starch acetate pigments as a function of size and packing density

Penttilä, A., Lumme, K. & Kuutti, L., 2006, In: *Applied Optics*. 45, 15, p. 3501-3509 9 p.

Coherent backscattering by aggregates of spherical constituents

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Numerical solution to the first-order scattering by rough surfaces

Penttilä, A. & Lumme, K., 2005, *Proceedings of the 8th Conference on Electromagnetic and Light Scattering by Nonspherical Particles: Theory, Measurements, and Applications* : 2005.

Statistical analysis of asteroidal and cometary polarization phase curves

Penttilä, A., Lumme, K., Hadamchik, E. & Levasseur-Regourd, A. -C., 2005, In: *Astronomy & Astrophysics*. 432, 3, p. 1081-1090 10 p.

The effect of particle shape on scattering - A study with a collection of axisymmetric particles and sphere clusters

Penttilä, A. & Lumme, K., 2004, In: *Journal of Quantitative Spectroscopy & Radiative Transfer*. 89, 1-4, p. 303-310 8 p.

Light scattering by large densely-packed aggregates: A wave-optical approach

Lumme, K., Green, K., Muinonen, K. & Penttilä, A., 2003, *Electromagnetic and Light Scattering - Theory and Applications VII: Proceedings of the 7th Conference on electromagnetic and Light Scattering by Nonspherical Particles: Theory, Measurements and Applications*. Bremen, Germany, p. 220-223 4 p.

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Theoretical analysis of the particle properties and polarization measurements made in microgravity

Penttilä, A., Lumme, K., Worms, J. C., Hadamchik, E., Renard, J. B. & Levasseur-Regourd, A. C., 2003, In: *Journal of Quantitative Spectroscopy & Radiative Transfer*. 79, p. 1043-1049 7 p.

Light scattering by cometary dust - A review of the codes, constraints and results

Lumme, K. & Penttilä, A., 2002, *Proceedings of the 6th Conference on Electromagnetic and Light Scattering by Nonspherical Particles: Theory, Measurements and Applications*. Florida, USA, p. 195-198 4 p.

Partikkelien muodon mallintaminen niiden 2D-satunnaisprojektiosta

Penttilä, A., 2002, 53 p.

Activities**Journal of Quantitative Spectroscopy & Radiative Transfer (Journal)**

Antti Penttilä (Reviewer)

2021

Remote Sensing (Journal)

Antti Penttilä (Reviewer)

2021

Tähtienväliset vierailijat aurinkokunnassamme

Antti Penttilä (Speaker)

3 Mar 2020

Remote Sensing (Journal)

Antti Penttilä (Reviewer)

2020

Remote Sensing (Journal)

Antti Penttilä (Reviewer)

2020

Science (Journal)
Antti Penttilä (Reviewer)
2020

Astronomy & Astrophysics (Journal)
Antti Penttilä (Reviewer)
2019

Astrophysical Journal Supplement Series (Journal)
Antti Penttilä (Reviewer)
2019

Icarus (Journal)
Antti Penttilä (Reviewer)
2019

Journal of Quantitative Spectroscopy & Radiative Transfer (Journal)
Antti Penttilä (Reviewer)
2019

Journal of Quantitative Spectroscopy & Radiative Transfer (Journal)
Antti Penttilä (Reviewer)
2019

Remote Sensing (Journal)
Antti Penttilä (Reviewer)
2019

Astronomy & Astrophysics (Journal)
Antti Penttilä (Reviewer)
2018

Monthly Notices of the Royal Astronomical Society (Journal)
Antti Penttilä (Reviewer)
2018

Remote Sensing (Journal)
Antti Penttilä (Reviewer)
2018

Research in astronomy and astrophysics (Journal)
Antti Penttilä (Reviewer)
2018

Laboratory Measurements of Single-Particle Polarimetric Spectrum
Antti Penttilä (Invited speaker)
11 Dec 2017

WORKSHOP ON SPECTROSCOPY, PHOTOMETRY, AND POLARIMETRY OF AIRLESS SOLAR SYSTEM OBJECTS
Karri Olavi Muinonen (Chair), Maria Gritsevich (Chair of organizing committee) & Antti Penttilä (Secretary of organizing committee)
14 Sep 2017 → 15 Sep 2017

FINNISH URSI CONVENTION ON RADIO SCIENCE

Karri Olavi Muinonen (Chair), Antti Penttilä (Chair of organizing committee) & Maria Gritsevich (Secretary of organizing committee)

8 Sep 2017 → 9 Sep 2017

Europlanet Consortium (External organisation)

Antti Penttilä (Board member)

2017 → ...

Journal of Laser Applications (Journal)

Antti Penttilä (Reviewer)

2017

Journal of Quantitative Spectroscopy & Radiative Transfer (Journal)

Antti Penttilä (Reviewer)

2017

Journal of Quantitative Spectroscopy & Radiative Transfer (Journal)

Antti Penttilä (Reviewer)

2017

Journal of Quantitative Spectroscopy & Radiative Transfer (Journal)

Antti Penttilä (Reviewer)

2017

BigSkyEarth WG2 and 4 Meeting in Finland

Maria Gritsevich (Chair of organizing committee), Antti Ilmari Penttilä (Member of organizing committee), Jouni Ilmari Peltoniemi (Member of organizing committee), Nataliya Zubko (Member of organizing committee), Jarkko Koskinen (Member of organizing committee) & Karri Muinonen (Member of organizing committee)

10 Oct 2016 → 11 Oct 2016

Planetary and Space Science (Journal)

Antti Penttilä (Reviewer)

2015

Laser-light and Interactions with Particles

Antti Penttilä (Poster Presentation)

25 Aug 2014 → 29 Aug 2014

Asteroids, Comets, Meteors

Antti Penttilä (Chair of organizing committee)

30 Jun 2014 → 4 Jul 2014

Conference on Electromagnetic and Light Scattering

Antti Penttilä (Attendee)

17 May 2013 → 21 May 2013

Journal of Quantitative Spectroscopy & Radiative Transfer (Journal)

Antti Penttilä (Reviewer)

2012

Journal of Laser Applications (Journal)

Antti Penttilä (Reviewer)

2011

Journal of Quantitative Spectroscopy & Radiative Transfer (Journal)

Antti Penttilä (Reviewer)

2011

Brazilian Journal of Chemical Engineering (Journal)

Antti Penttilä (Reviewer)

2010

Conference on Electromagnetic and Light Scattering

Antti Penttilä (Chair of organizing committee)

2010

Conference on Electromagnetic and Light Scattering XII

Antti Penttilä (Attendee)

2010

International Conference on Electromagnetic and Light Scattering (Journal)

Antti Penttilä (Editor)

2010

International Conference on Electromagnetic and Light Scattering (Journal)

Antti Penttilä (Editor)

2010

Journal of Quantitative Spectroscopy & Radiative Transfer (Journal)

Antti Penttilä (Reviewer)

2010

Unknown

Antti Penttilä (Visiting lecturer)

1 Dec 2008 → 6 Dec 2008

Conference on Electromagnetic and Light Scattering by Nonspherical Particles

Antti Penttilä (Poster Presentation)

17 Jun 2007

DDA-workshop

Antti Penttilä (Speaker: Presenter)

23 Mar 2007

International Space Science Institute (External organisation)

Antti Penttilä (Expert member)

2007 → 2008

Journal of Quantitative Spectroscopy & Radiative Transfer (Journal)

Antti Penttilä (Reviewer)

2007

Conference on Electromagnetic and Light Scattering by Nonspherical Particles

Antti Penttilä (Speaker: Presenter)

5 Jun 2006 → 10 Jun 2006

Conference on Electromagnetic and Light Scattering by Nonspherical Particles

Antti Penttilä (Poster Presentation)

5 Jun 2006 → 10 Jun 2006

Finnish-Estonian vegetation remote sensing seminar

Antti Penttilä (Speaker: Presenter)

18 Apr 2006

International Conference on Electromagnetic and Light Scattering (Journal)

Antti Penttilä (Reviewer)

2006

Conference on Electromagnetic and Light Scattering by Nonspherical Particles

Antti Penttilä (Speaker: Presenter)

15 May 2005 → 23 May 2005

TEKES C-Coat seminar

Antti Penttilä (Poster Presentation)

16 Feb 2005

International Conference on Electromagnetic and Light Scattering (Journal)

Antti Penttilä (Reviewer)

2005

Conference on Electromagnetic and Light Scattering by Nonspherical Particles

Antti Penttilä (Speaker: Presenter)

6 Sep 2003 → 14 Sep 2003

Tartu Conference on Multivariate Statistics-konferenssi

Antti Penttilä (Attendee)

8 Aug 2003 → 12 Aug 2003

Suomen avaruustutkijoiden COSPAR kokous

Antti Penttilä (Poster Presentation)

30 Oct 2002

Unknown

Antti Penttilä (Visiting lecturer)

1 Aug 2002 → 31 Aug 2002

Prizes

JQSRT Peter C. Waterman Award: Scattering & Remote Sensing

Penttilä, Antti (Recipient), 2012

Press/Media

Coating the synergy, yield and sequel

Antti Penttilä

01/03/2006

1 Media contribution

Painopaperin kirkkaus kiinnostaa tähtitieteilijöitä

Antti Penttilä

01/06/2007
1 Media contribution