

Finnish URSI Convention on Radio Science

The Department of Physics at the University of Helsinki organizes the [Finnish URSI](#) Radio Science Days at September 7–8, 2017. The meeting will be held at [Kumpula Campus](#).



Invited speakers

- Dr. Gorden Videa, Space Science Institute, USA and U.S. Army Research Laboratory
- Dr. Anne Virkki, Arecibo Observatory, Puerto Rico
- Dr. Talvikki Hovatta, Tuorla Observatory
- Dr. Constantin Simovski, Aalto University
- Ass. Prof. Jaan Praks, Aalto University
- Dr. Johannes Markkanen, University of Helsinki

Young Scientists award

Following the tradition, a trophy will be awarded to a promising scientist under 35 years. This year the selection committee decided to award Dr. Talvikki Hovatta from Tuorla Observatory with invited presentation [Radio view of magnetic fields around relativistic jets](#). Congratulations Talvikki!



Program

One-page PDF version.

		THU 7.9.		FRI 8.9
		Chemicum A110		Chemicum A129
08:30		Opening, H. Koskinen, K. Muinonen and A. Sihvola	T. Hovatta	Radio view of magnetic fields around relativistic jets
08:45	A. Virkki	Radio and radar astronomy at the Arecibo Observatory	J. Harju	ALMA discovers a de-icing zone in a prestellar core
09:00				
09:15	N. Zubko	New VGOS radio telescope at Metsähovi Geodetic Research Station	M. Juvela	Polarised emission from interstellar dust clouds
09:30	A. Wallin	Initial results from the MIKES-Metsähovi time and frequency link	M. Saajasto	Molecular radio line observations of a galactic star forming cloud G82.65-02.00
09:45	K. Lehtinen	Occultations of compact radio sources by asteroids	J. Herranen	Effect of Scattering Dynamics on Model Dust Polarization
10:00		coffee		coffee
10:15				
10:30	G. Videen	Microphysical Properties of Regolith and Obtaining Information through Modeling	C. Simovski	Enhancement of organic solar cells by silver nanoantennas
10:45				
11:00	J. Markkanen	Electromagnetic scattering by dense discrete random media: Numerical solution via radiative transfer with reciprocal transactions R2T2	F. Liu	Tunable function from tunable metasurfaces
11:15			D. Tzarouchis	Plasmonic resonances and excitation-free modes on Platonic solids
11:30	T. Väisänen	Multiple scattering modeling pipeline for spectroscopy, polarimetry, and photometry of airless Solar System objects	A. Diaz Rubio	Full control of reflection: spatial power modulation and its consequences
11:45	J. Martikainen	Retrieving complex refractive indices using multiple-scattering methods	X. Wang	Systematic design of perfect metasurface absorber for ink-printing technology
12:00-13:30		lunch	12:00-13:30	lunch
		Physicum D101		Exactum A111
13:30	J. Haapamaa	Synthetic Aperture Radar and Signature Management of Ground Targets: Numerical Approach	T. Kiuru	Harnessing the power of millimeter wave radar for improving the orientation and mobility of the visual impaired
13:45	H. Rantanen	Radio Technical Evolution in the Finnish SDR Program	M. Gritsevich	Challenges in interpreting meteor detections based on middle and upper atmosphere radar measurements
14:00	M. Melvasalo	Co-Existence of Communication and Radar Systems	V.-M. Pelkonen	3D radiative transfer code for polarized scattered light with aligned grains
14:15	L. Koskinen	Performing side channel attack on a commercial AES-256 device	K. Muinonen	Multiple scattering by discrete random media of Rayleigh scatterers using first-order incoherent interactions
14:30	D. Korpi	In-band Full-Duplex Radios for Military Communications		Discussion, K. Muinonen
14:45	J. Ruoskanen	Discussion		
15:00		coffee		coffee
15:15				
15:30		Aalto-1 satellite first months in orbit		

15:45	J. Praks			
16:00	A. Penttilä	Full Mueller matrix single particle scatterometer		

Abstracts

Participants who want to contribute with oral presentation in the program should send a short, max. one page abstract, before August 25. to the local organizer contact person. The format of the one-page abstract is free, but you may use [this template](#).

Conference Dinner

The conference dinner will be held at [restaurant Lasipalatsi](#), close to the railway station and the Kamppi mall. We will start the dinner at 18:30 on Thursday evening.

Scientific Organizing Committee

Ana Diaz-Rubio (Aalto Univ.), Martti Hallikainen (Aalto Univ.), Jorma Harju (Univ. Helsinki), Karri Muinonen (Univ. Helsinki, Chair), Jukka Ruoskanen (Finnish Defence Research Agency, Riihimäki), Esa Turunen (Univ. Oulu), Jyrki Manninen (Univ. Oulu), Henrik Wallen (Aalto Univ.)

Local organizers

Dr. Antti Penttilä (contact: antti.i.penttila@helsinki.fi), Dr. Maria Gritsevich, and Prof. Karri Muinonen
