

*BAASP 2019 – 6<sup>th</sup> International Scientific  
Conference*

**"BALTIC APPLIED  
ASTROINFORMATICS AND SPACE  
DATA PROCESSING"**

August 21-23, 2019  
Ventspils, Latvia

**INVITATION TO CONFERENCE  
CALL FOR PAPERS**

We invite you to the 6<sup>th</sup> **International Scientific Conference “Baltic Applied Astroinformatics and Space data Processing”** (BAASP) which will be held at **Ventspils University of Applied Sciences** and organized by Engineering Research Institute “Ventspils International Radio Astronomy Center” (VIRAC) of Ventspils University of Applied Sciences.

**Aim of the Conference**

The Conference is intended as a collaboration platform for cross border partnership and knowledge transfer for astronomers, astrophysicists, space researchers and engineers as well as experts in related research disciplines in fields such as informatics, electronics, satellite technology, geodesy and environment sciences. While the general scope of BAASP is wide, this year’s specific themes are **astrophysics, space technologies and remote sensing**. The conference focuses on the Baltic region but we also cordially invite participants from other countries.

**Conference Theme**

Space science is being fundamentally influenced and empowered by computation and information technology, and it stimulates further technological developments. Astronomy, like many other fields, is becoming exponentially data-rich, and the tasks of data management, data acquisition, and knowledge discovery become central to our research organisation, bringing together many technical and methodological challenges. Information technology also provides the stage where we collaborate and interact, and publish, preserve, use and disseminate knowledge. The general philosophy behind is to be future-oriented, which determines the emerging discipline of astroinformatics.

Recent challenges are directed to more human-orientated, highly personalized and trustworthy systems enabling their users to cope with the large variety of frameworks, technologies, data volumes and tools needed to accommodate emerging scientific applications. Therefore, one of the areas of focus here is quantitative and qualitative methods for exploiting, predicting, and understanding the value that information and communication state of art technologies brings to space science, astronomy, geodesy and related fields.

The scope of the conference covers fundamental and applied research that related to space technologies, and includes the following:

- ✓ **space science**, including space and atmospheric physics, Earth observation and remote sensing from space, planetary sciences, astrochemistry, space geodesy, astronomy and astrophysics;
- ✓ **space engineering**, including communications, navigation, space operations, satellite design, testing, and implementation, engineering of new generation radio telescope frontend and backend solutions;
- ✓ **space and industrial IT solutions**, including data acquisition, signal processing, data correlation, data recording, transfer, processing and archiving, high performance and cloud computing techniques.

### **Key focus in 2019**

#### **Astrophysics, remote sensing and new generation radio electronics.**

The conference is planned in parallel sessions:

- ✓ Astrophysics is driven by the exploitation of astronomical observations, which includes data processing, interpretation, and putting the results in an appropriate scientific context to understand the underlying physical phenomena. The path from observations to discoveries is the focus of BAASP 2019.
- ✓ Remote sensing is another example, where technologically complex investment ultimately yields scientific and commercially useful results. Besides observations of the Earth, this includes also the Moon and other planets, satellites, even comets, and asteroids in the Solar system. With BAASP 2019, we aim to enable a discussion on aspects of data processing and interpretation in remote sensing.
- ✓ New generation radio electronics is the basis of new discoveries in astrophysics and radio astronomy since novel technology implementations of new modern radio systems enhance the properties of current radio-astronomy instrumentation thus improving specific observing capabilities. The development of both signal processing hardware and software is also the scope of BAASP 2019.

### **Important Dates**

**April 1** Abstract submission;

**April 15** Abstract acceptance;

**May 7** Paper submission (formatted full text) and registration;

**June 28** Acceptance decision;

EARLY registration fee until **July 5**;

STANDARD registration fee until **July 31**.

**December 1** Final version. Full Paper submission for Conference proceedings – Sciendo “Latvian Journal of Physics and Technical Sciences” (SCOPUS and WoS) or VIRAC journal “Space Research Review” vol.6.

### **Registration**

Will be open at 1 February by e-mail: [baasp2019@venta.lv](mailto:baasp2019@venta.lv)

Enquiries please send by e-mail: [baasp2019@venta.lv](mailto:baasp2019@venta.lv)

### **The registration fee is:**

- ✓ 100 EUR (50 EUR for students) before July 5, 2019
- ✓ 120 EUR (60 EUR for students) before July 31, 2019

Conference registration fee will cover: participant package, lunch, Conference dinner and refreshments during the Conference, publication of the abstract in the Conference Abstract Book and selected papers will be published in the Sciendo “Latvian Journal of Physics and Technical Sciences” (SCOPUS and WoS) or VIRAC journal “Space Research Review” vol.6.

### **Conference publications**

All abstracts will be published in the Conference Abstract Book.

The best selected papers will be published in the “Latvian Journal of Physics and Technical Sciences” (SCOPUS and WoS). All other selected papers will be published in the VIRAC journal “Space Research Review” vol.6.

All participants are invited to submit manuscripts to conference proceedings in the VIRAC journal “Space Research Review” vol.6. All papers will be peer-reviewed. Detailed instructions for full papers will be sent upon acceptance of abstracts.

### **Scientific Organizing Committee**

Dr. Romass Pauliks (Vice Chairman) VIRAC (LATVIA)

Dr. Andris Vaivads (Chairman) Swedish Institute of Space Physics (SWEDEN)

Dr. Leonid Gurvits Joint Institute for VLBI (JIVE) (NETHERLANDS)

Dr. Dainis Dravins Lund Observatory (SWEDEN)

Dr. Tonu Viik Tartu Observatory (ESTONIA)  
 Dr. Grazina Tautvaisiene Vilnius University (LITHUANIA)  
 Dr. Guntars Balodis Riga Technical University (LATVIA)  
 Dr. Ilgmars Eglitis University of Latvia, Institute of Astronomy (LATVIA)  
 Dr. Janis Kaminskis Riga Technical University (LATVIA)  
 Dr. Ivars Shmelds Ventspils University College (LATVIA)  
 Dr. Boris Ryabov Ventspils University College (LATVIA)  
 Dr. Juris Kalvans Ventspils University College (LATVIA)  
 Dr. Normunds Jekabsons Institute of Physics of the University of Latvia (LATVIA)  
 Dr. Artūrs Vrubļevskis Ventspils University College (LATVIA)  
 Dr. Andris Slavisnkis University of Tartu (ESTONIA)  
 Dr. Juris Freimanis Ventspils University College (LATVIA)  
 Dr. Raita Rollande Ventspils University College (LATVIA)  
 Dr. Antons Vasyunin Max Planck Institute for Extraterrestrial Physics (RUSSIA)  
 Dr. Oleg Ulyanov Institute of Radio Astronomy NAS (UKRAINE)  
 Dr. Juhna Kallunki Metsähovi Radio Observatory, Aalto University (FINLAND) (tbc)  
 Dr. Maria S.Kirsanova Institute of Astronomy, Russian Academy of Sciences (RUSSIA) (tbc)  
 Dr. Gino Tuccari National Institute of astrophysics, Institute for Radio Astronomy of Bologna (ITALY)  
 Dr. Andrey M. Sobolev Ural Federal University (RUSSIA), (tbc)  
 Dr. M.I.Ryabov Odessa I.I.Mechnikov National University Astronomical Observatory Research Institute (UKRAINE)  
 Dr. Maria Nechaeva Special Design Bureau of the Moscow Power Engineering Institute (OKB MEI) (RUSSIA) (tbc)  
 Dr. Neal Jackson The University of Manchester (UK) (tbc)  
 Dr. Rene Vermeulen International LOFAR Telescope (tbc)  
 Dr. Andrzej Krankowski University of Warmia and Mazury (POLAND) (tbc)  
 Dr. Peter Gallagher Dublin Institute for Advanced Studies (IRELAND) (tbc)  
 Dr. Bartosz (POLAND) (tbc)  
 Dr. Sobolev (RUSSIA) (tbc)

#### **Local Organizing Committee**

Romass Pauliks (Chairman), Vladislavs Bezrukovs (Vice Chairman), Ieva Kozlova, Baiba Šefanovska.

#### **Preliminary Schedule of Conference**

There will be two types of presentations at the conference: plenary talks (27 minutes talk + 3 minutes for questions), section talks (15-20 minutes, including 3 minutes for questions).

#### Wednesday, August 21

14:00-15:30 Arrival  
 15:30-16:00 Registration  
 16:00-20:00 Opening and Refreshments

#### Thursday, August 22

8:30-9:00	Registration
9:00-10:30	Opening and plenary session
10:30-11:00	Coffee break
11:00-13:00	Work in sections
13:00-14:00	Lunch
14:00-15:30	Work in sections
15:30-16:00	Coffee break
16:00-18:00	Work in sections
19:00	Conference dinner

#### Friday, August 23

9:00-10:30	Work in sections
10:30-11:00	Coffee break
11:00-13:00	Work in sections
13:00-14:00	Lunch
14:00-15:00	Closing remarks
15:00-18:00	Meetings/Excursions

**Accommodation**

You can find the corresponding information about accommodation at Ventspils web site:

<http://www.visitventspils.com/en/start/>

**Information and address for correspondence**

Questions regarding the conference should be addressed to the local organizing committee (e-mail: [baasp2019@venta.lv](mailto:baasp2019@venta.lv)).

Address for the correspondence:

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