



# The 7th International Conference on Deep Learning in Computational Physics

June 21-23, 2023

SPbSU, St.-Petersburg, Peterhof, Russia

Official website:

<https://dlcp2023.sinp.msu.ru>

We are pleased to invite you to participate to the DLCP-2023 – **The 7th International Conference on Deep Learning in Computational Physics** which will be held at the Faculty of Physics of St.-Petersburg State University (SPbSU) on **June 21-23, 2023**.

The conference will be held in a **mixed format**: face-to-face and remote.

The conference primarily focuses on the use of machine learning in particle astrophysics and high energy physics, but is not limited to this area. Topics of interest are various applications of artificial neural networks to physical problems, as well as the development of new modern machine learning methods for analyzing various scientific data, including big data.

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The working language are English and Russian.

## The main topics

### 1. Machine Learning in Particle Astrophysics and High Energy Physics

- Machine learning methods in particle astrophysics and high energy physics.
- Fast event generators based on machine learning for simulation of physics phenomena.
- Multi-messenger data analysis of experimental data.
- Application machine learning for data analysis in LHC, NICA, TAIGA and other experimental facilities.

### Track 2. Modern Machine Learning Methods

- Convolutional neural networks.
- Recurrent neural networks.
- Graph neural networks.
- Modern trends in machine learning.

### Track 3. Machine Learning in Natural Sciences

- Biology and bioinformatics.
- Engineering sciences.
- Climate prediction and Earth monitoring.

### Track 4. Machine Learning in Education

- Machine learning in High education.
- Outreach knowledge in machine learning

## **Important dates**

- Registration — until June 7, 2023
- Deadline for abstract submission — May 23, 2022
- Notification of report acceptance — June 7, 2023
- Conference dates - June 21-23, 2023
- Paper submission — August 14, 2023

## **The conference will feature:**

- invited presentations – 30 minutes,
- regular presentations – 15 minutes,
- posters (only face to face) – A1 or A0 format, vertical arrangement.

## **Registration fee**

On site participation:

- Participant - 6000 ₺
- Student - 1000 ₺

Online (remote participation):

- Participants with accepted report - 3000 ₺
- Student, online participant without report - free of charge

## **Proceedings**

After blind peer review, all accepted papers will be published online in the conference proceedings at [Proceedings of Science](#) and submitted for indexing in Scopus and supply by DOI.

We invite two types of submissions:

REGULAR PAPERS describe research not published or submitted elsewhere (10-12 pages). SHORT PAPERS may be position papers, descriptions of research prospects, challenges, projects, ongoing works, or applications (5-9 pages).

## **Place and transportation**

The Faculty of Physics of SPbSU (Uljanovskaja str., 3, St-Petersburg-Peterhoff, Russia). Directions to the meeting venue, information about trains and buses can be found on the conference website. The ZOOM link will only be sent to registered participants 2 days before the start of the conference.

## **Accommodation**

Conference participants have to make hotel reservations on their own and in advance.

**Please note that during the white nights in St. Petersburg there is a large influx of tourists. Therefore, it is highly recommended to book hotels in advance.**

For students, it is possible to stay in the hostel of the Campus, which is located next to the conference venue. Information about accommodation can be found on the conference website.

## Program committee

- A. Kryukov (SINP MSU, Moscow) — Co-Chair
- S. Yakovlev, professor (SPbSU,SPb) — Co-Chair
- I.Andronov, professor (MMAA, SPb)
- I.Belyaev, professor (Herzen University, SPb)
- E. Boos, corresponding member of the RAS (SINP MSU, Moscow)
- A. Demichev (SINP MSU, Moscow)
- V. Ilyin (NIC “Kurchatov Institute”, Moscow)
- V. Korenkov, professor (MLIT JINR, Dubna)
- V.Rudnev, (SPbSU, SPb)
- M.Stepanova, (SPbSU, SPb)
- A.Tzherbakov, professor (IAI RAS, SPb)
- F.Valiev, professor (SPbSU,SPb)
- V. Voevodin, corresponding member of the RAS (RCC MSU, Moscow)
- E.Yarevsky, professor (SPbSU,SPb)

## Organizers

St.-Petersburg State University (SPbSU, St.-Petersburg, Russia),

M.V. Lomonosov Moscow State University, D.V. Skobeltsyn Institute of Nuclear Physics (SINP MSU, Moscow, Russia),

Research Computing Center of the Lomonosov Moscow State University (RCC MSU, Moscow, Russia),

Joint Institute for Nuclear Research, Meshcheryakov Laboratory of Information Technologies (MLIT JINR, Dubna, Russia)

## Contacts

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With best regards,  
DLCP'2023 Organizing committee

