

# **Machine and Deep Learning in Applied Tasks**

Lecturer: Daria Priakhina, researcher, MLIT JINR

Video editing: Alexey Vorontsov, chief engineer of the facility, MLIT JINR

The lecture is intended for those who begin mastering machine learning. From the lecture, one will learn what data science is, what the process of solving an applied task embraces, what machine and deep learning methods exist and for what applied tasks they are used, including in JINR projects. In conclusion, some recommendations are given to those who would like to dive into the world of machine learning and become a developer of algorithms for solving various tasks.

We would like to express our gratitude to the following JINR MLIT scientists for some materials used in preparing the lecture:

- Prof. Gennady A. Ososkov, doctor of physics and mathematics, chief researcher;
- Oksana I. Streltsova, candidate of physics and mathematics, senior researcher;
- Alexander V. Uzhinskiy, candidate of technical sciences, senior researcher.

Links to electronic sources of information

- [Jake VanderPlas. Python Data Science Handbook](#)
- [Google's Neural Machine Translation System: Bridging the Gap between Human and Machine Translation](#)
- [Yandex Company — Technologies — Routing](#), in Russian
- [What's the Best Programming Language for Machine Learning Applications? – ITChronicles](#)
- [Machine Learning for People — In Simple Words — Vas3k](#), in Russian
- [Introduction to Neural Network Architectures / Habr](#), in Russian
- [HybriLIT Platform — Heterogeneous Cluster | MLIT/JINR](#)