

# Particles and Cosmology

## 16th Baksan School on Astroparticle Physics

**Baksan Valley, Kabardino-Balkaria, Russian Federation:  
April 10-18, 2019**

The aim of the School is to cover topics in both experimental and theoretical astroparticle physics. The main part of the School program will consist of three lecture courses followed by discussion sessions and practical work in small groups. There will also be several separate lectures, sessions for participant presentations and an excursion to underground laboratories of the Baksan Neutrino Observatory.

### Lecture courses:

Modern methods of neutrino detection, by Alain Blondel (Geneva U.)

Machine learning in astroparticle physics, by Oleg Kalashev (INR, Moscow)

Multimessenger astrophysics, by Michael Kachelriess (NTNU Trondheim)

### Additional lectures:

Neutrino oscillations: experimental review, by Yuri Kudenko (INR, Moscow)

MeV Neutrino Astrophysics, by Mark Vagins (UC Irvine)

Detection techniques for gravitational waves, by Denis Martynov (U of Birmingham)

JINR astroparticle physics program, by Dmitry Naumov (JINR, Dubna)

Baksan astroparticle physics program, by Valery Kuzminov (BNO INR)

### Organizers:

Institute for Nuclear Research, Russian Academy of Sciences (INR RAS)

Joint Institute for Nuclear Research (JINR)

Astroparticle Physics European Consortium (APPEC)

Russian Foundation for Basic Research (RFBR)



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