Area of study:

03.04.02 Physics

Program

Astrophysics and Stellar Astronomy

Degree: Master

Program length and study mode: 2020-

2022 (2 years), intramural

Language: Russian

Credits: 120 (60 credits a year) Start date: September 1, 2020

Location: Faculty of Physics, Southern

Federal University

Entry requirements: bachelor or specialist's degree in natural sciences (preferably physics, mechanics and mathematics)

Program overview:

The program is focused on research and applied training. The students perform theoretical and observational studies of astrophysical objects and space plasma, numerical modeling of ionization, chemical and thermodynamic processes in astrophysical systems, numerical modeling of fluid dynamical processes, transport, processing and archiving of observational data, development of software and hardware for astronomical observations.

Program structure:

The program consist of 3 modules: a general scientific module, professional scientific module and research module.

Typical units of study may include:

- Astronomy and stellar astrophysics
- The English language
- Teaching internship
- Research work, the Master thesis defense.

Research areas:

The whole spectrum of professional skills in astronomy and astrophysics, physics, numerical modeling, including programming on supercomputers, visualization of the numerical results.

Careers:

- As a physicist and astronomer, a graduate can work in astrophysical institutes, observatories and space departments, as well as in various technological companies where numerical simulation and statistical analysis are needed.
- As a teacher of physics, astronomy and astrophysics in different educational institutions.

Get in touch:

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