



## **Space sciences education and outreach program of Moscow State University**

S. Krasotkin (1), M. Panasyuk (1), V. Radchenko (1)

(1) Skobeltsyn Institute of Nuclear Physics, Moscow State University, Moscow, Russia  
(sergekras@rambler.ru / Fax +7 495 939 0896)

The space sciences education and outreach program was initiated in Moscow State University in order to incorporate modern space research in the university and high education, to popularize basics of space physics, and to enhance public interest in space exploration.

On 20 January 2005, the First Russian University Satellite “Universitetskiy-Tatyana” was launched into circular polar orbit (inclination 83 deg., altitude 940-980 km). The onboard scientific complex, as well as the mission control and information-receiving center, was designed and developed in Moscow State University. The scientific program of the mission includes measurements of space radiation in various energy ranges, and UV luminosity and lightening from the Earth.

Educational materials are concentrated to upper high school, junior and senior university levels.

A multimedia lectures “Life of the Earth in the Solar Atmosphere” containing the basic information and demonstrations on the heliophysics (including Sun structure and solar activity, heliosphere and geophysics, solar-terrestrial connections and solar influence on the Earth’s life) was created for upper high school and junior university students.

For the senior university students there was created a dozen of special computerized hands-on exercises based on the experimental quasi-realtime data obtained from “Universitetskiy-Tatyana” satellite and other internet resources.

Students specialized in space physics from a few Russian universities are involved in scientific work based on various scientific data.

Moscow State University is now extending its space science education program by creation the electronic textbooks on remote sensing, space factors and materials study, satellite design and development, etc.

“Space schools” for university teachers and students were held in 2004 - 2006. The main objective of these schools was to attract interest to space research. Tutors and students who took part in these schools had never before been involved in the space sciences. The mutual idea of these schools was to join forces: Moscow State University scientists gave space science lectures, students from other universities performed the work (prepared educational material), and their university teachers managed the students. After participating in these schools, both students and teachers started to study space science related topics emphasizing the success of these schools.

For modern university world, it is very important to understand what skills future space scientists and space industry employees must be equipped with. In the next years, better communications should be practiced between universities and industry.

The space sciences educational activity of Moscow State University is a non-profit project and is open for all interested parties.