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Status of the TUS space experiment preparation

The TUS space project for investigation of Ultra High Energy Cosmic Rays (UHECR) by the measurement of Extensive Atmospheric Shower fluorescent radiation is in the construction stage. The main goal of the TUS mission is to search for cosmic ray particles beyond GZK energy limit, $E=50$ EeV. In comparison to ground based detectors TUS has an advantage of the all sky observation of primary particle arrival directions. The TUS experience of UHECR study from space will be important for future space detectors like the next JEM-EUSO mission for which the TUS space detector could be considered as a "pathfinder". UV sensor of the TUS detector was operated on board the Russian "Universitetsky-Tatiana" satellite. The JEM-EUSO UV sensor will be tested during the TUS data taking for atmospheric transient luminous events measurements by pinhole camera at the TUS apparatus. The technological TUS prototype is produced and their tests are in progress. The flight TUS detector has to be produced in 2010-2011. The mission is planned for operation at the end of 2011 at the dedicated "Mikhail Lomonosov" satellite.

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