## **THz space mission Millimetron**

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*Abstract*— We present an overview and current status of the astronomical mission Millimetron. Millimetron is a spaceborne observatory with a cooled 10-m diameter telescope optimized for operation in the submillimeter and far-infrared ranges. Due to an unprecedented sensitivity in one of the basic observation mode, as a single-dish observatory and an unprecedented high resolution in another mode, as an element of a space-earth VLBI system, Millimetron will be able to solve various of key problems in current astrophysics such as study of the formation and evolution of stars and planets, galaxies, quasars and many others. There will be no cryogenic liquids on board, which will reduce the mass of the observatory. Instead the mission will be cooled passively with heat shields and actively with mechanical coolers. This combination of passive and active cooling will provide a 10-m space telescope cooled down to 4.5K. The planned launch year of the Millimetron observatory is 2017.