Detection of pulsed periodic radio emission from 4U 0142+62

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Anomalous X-ray Pulsars (AXPs) form a small group (5–7 objects) of exotic young neutron stars; about half of them are observed in supernova remnants. We report the detection of radio emission from the AXP 4U 0142+61. The observations were performed using two sensitive transit radio telescopes of the Pushchino Observatory at frequencies 111 and 41 MHz. The pulse profiles, the flux densities and the dispersion measures are presented, as well as the estimations of distance, spectral indices and integral luminosities. The barycentric periods and period derivatives during the 3 and 2 year intervals have been determined. The comparison of our data and X-ray data showed large differences in the mean pulse widths and luminosities.