High temporal resolution 2-d multiband photometry of the Crab pulsar with the 6-meter telescope

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We report results of the UBVR observations of the Crab pulsar carried out with the panoramic high temporal resolution photometer, mounted on the 6-meter telescope of SAO RAS.

We determine both phase-averaged and phase-resolved color indices of the pulsar emission and show that color characteristics are phase-depended for both pulses.

A special method for the accurate reduction of the nebular background around pulsar was developed. It allowed us to obtain the magnitudes of off-pulse emission in various bands: $B = 21.6 \pm 0.4$, $V = 20.9 \pm 0.2$ and $R = 20.1 \pm 0.2$.

These results are compared with current models of pulsar optical emission.