

References

- Bond H.E., Liller W., Mannery E.J.: 1978, *Ap.J.*, **223**, 252.
- Kholopov P.N., Samus' N.N., Frolov M.S., Goransky V.P., Gorynya N.A., Karitskaya E.A., Kazarovets E.V., Kireeva N.N., Karkina N.P., Medvedeva G.I., Pastukhova E.N., Perova N.B., Shugarov S.Yu.: 1987, *General Catalogue of Variable Stars (GCVS)*, 4th ed., Nauka, Moscow.
- Tsesevich V.P.: 1976, *Studies of variable stars in selected regions of the Galactic field* (in Russian), 161-170, Kiev, Naukova Dumka.

DETECTION OF NONTHERMAL OPTICAL FLARES FROM A BURSTER MXB 1735-44 AND X-RAY NOVA PERSEI 1992 = GRO J0422+32

C. Bartolini, O. Benvenuto, G. Beskin, C. Feinstein, A. Guarnieri, M. Mendez,
S. Mitronova., S. Neizvestny, A. Piccioni, V. Plokhotnichenko, M. Popova, A. Zhuravkov
Special Astrophysical Observatory, Russia

ABSTRACT. During the observations on the 2.15 m telescope of CASLEO observatory (Argentina) two flares of about 0.25s duration were detected from a burster MXB 1735-44. Their forward fronts had steep regions with characteristic times of 0.05 - 0.06s and thin time structure within 0.005 - 0.006s with confidence probability > 95%. Brightness temperatures of these phases of the flares were more than $10^8 - 10^{10}$ K respectively. During the observations of Nova Per on the 6 m telescope of SAO stochastic flashes on a time scale from 10-20ms to 200s were recorded. The brightness temperature of the shortest flares were more than $(1.7-7.0) \cdot 10^8$ K. The events detected from these objects with high probability may be caused by nonthermal processes only. The results evidence probable departures from standard model of gasdynamic accretion on compact objects in MXB 1735-44 system and Nova Persei 1992.

Key words: Stars: Flares, Bursters, X-Novae