cance is better than 99%. That is there would be a very small chance to obtain the same high correlation if the light curves were really independent. Consequently we can conclude that the radio and optical fluxes have common origin of variability.

We predict that microlensing can occur at radio wavelengths, but the microlensing variations in radio and optical ranges are not necessarily correlated with each other. We shall discuss elsewhere possible physical models which can account for optical-radio correlations.

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References

Beskin G.M., Oknyanskij V.L.: 1992, in: *Lecture Notes in Physics,* **406**, 'Gravitational Lens', Springer Verlag, p. 67 (Paper I).

Gaskell C.M., Spark L.S.: 1986, *Ap.J.,* **305**, 175.

Hufnagel B.R., Bregman J.N.,: 1992, *Ap.J.,* **386**, 473.

Lehar J., Hewitt J.N., Roberts D.H., Burke B.F.: 1992, *Ap.J.,* **384**, 453.

Walsh D., Carswell R.F., Weymann R.J.: 1979, *Nature,* **279**, 381.

EVOLUTION OF THE CRAB NEBULA RADIO EMISSION

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ABSTRACT. In 1977–1992 the flux density of the Crab Nebula in respect to Orion Nebula was measured at the frequency of 927 MHz with the same 10–m radio telescope. According to these measurements a mean rate of the Crab Nebula radio emission decline, $(0.44 \pm 0.16)\%$ per year, was determined. This value is considerably more than the value $(0.18 \pm 0.01)\%$ per year obtained for the previous fifteen years 1962–1977 (Vinyajkin E.N., Razin V.A.: 1979, *Austral. J. of Physics,* **32**, 93). It is possible that in addition to the steady secular decline of the Crab Nebula radio emission flux there are the flux fluctuations responsible for the variability of the mean radio emission flux decline rate determined with the use of $\approx$ 15–year periods observational data. The most probable cause of these fluctuations is a discreteness of the Crab Nebula radio structure.

Key words: Radio emission, Crab Nebula