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LOW-, MIDDLE-, AND HIGH-FREQUENCY QUASI-PERIODICAL OSCILLATIONS IN LIGHT CURVES OF CLASSICAL FUORS

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UBVR-photoelectric monitoring of three classical fuors obtained at Mt. Maidanak Observatory in the 1978, 1981–1994 seasons is discussed. The monitoring data include 541, 1369, and 1323 individual observations for FU Ori, V1057 Cyg, and V1515 Cyg, respectively. Digital analysis of this prolonged homogeneous series allows us to establish that there are three kinds of quasiperiodical variation in light curves of classical fuors:

- (1) low-frequency oscillations of large-scale light curve with periods of about a few units of 10^3 days;
- (2) middle-frequency oscillations of large-scale light curve with periods of about a few units of 10^2 days; and
- (3) high-frequency oscillations of small-scale light curve with periods of about a few units of 10^1 days.

Long-term periods for FU Ori (1645 d), V1057 Cyg (1587 d), and V1515 Cyg (2911 d) are interpreted as periodic condensation of new dust from the matter ejected by the star after fuor eruption. Middle-term periods for V1057 Cyg (200, 250 d) and V1515 Cyg (220 d) are perhaps caused by eclipsing of protoplanetary features in fuor discs. Short-term periods of 9–35 days in classical fuors may be interpreted as modulation of a spotted photosphere. A very interesting fact is determined and discussed for the first time: high-frequency oscillations on V1057 Cyg and V1515 Cyg evolve during a 15 year interval of observations changing from 9–15 (1981–1989 seasons) to 50 (1993–1994 season) days for V1057 Cyg and from 9–35 (1983–1990 seasons) to 90 (1994 season) days for V1515 Cyg.