CSIRO PUBLISHING

Publications of the Astronomical Society of Australia, 2008, **25**, 154 www.publish.csiro.au/journals/pasa

The Coherent Radio Emission from the RS CVn Binary HR 1099

O. B. Slee, W. Wilson, and G. Ramsay

Publications of the Astronomical Society of Australia, 2008, **25**, pp. 94–104

Section 2.2 should be replaced with the following text.

2.2 *Analysis of High Time-Resolution Data*

Our analysis of the high time-resolution data was intended to elucidate the temporal structure of the highly polarised emission. We did this by allocating the data to six bins containing the samples integrated over 40, 10, 2.5, 0.625, 0.156 and 0.078 s and then finding the average Stokes V intensity in each bin. Call the mean flux density associated with each bin, $\langle S_t \rangle$, say, and its variance σ_t^2, where t signifies the integration time of samples assigned to that bin. In addition, the ith individual flux density in that bin has its residual mean square value, σ_i^2, which is dependent on the system noise and will also make a contribution to σ_t^2. Therefore, to compute the variance due to the star's intensity variability *between* samples in the bin, $\sigma^2_{\tau/}$, we have:

$$\sigma^2_{t/} = \sigma_t^2 - \langle \sigma_i^2 \rangle \qquad (1)$$

in which the σ_ι have been averaged over all the samples in the bin.

The rms value of the stellar variability is thus;

$$\sigma_{t/} = \{\sigma_t^2 - \langle \sigma_i^2 \rangle\}^{0.5} \qquad (2)$$

Next, to assign a meaningful measure of this variability, we define a modulation index:

$$M = \sigma_{t/} / \langle S_t \rangle \qquad (3)$$

10.1071/AS07045_CO 1323-3580/08/03154