U. Narain & P. Ulmschneider Space Science Reviews 54, 377 (1990) Correction: missing section

2.7 Acoustic shocks in early-type stars

It is now generally accepted that the winds of early-type stars are driven by radiation pressure (see e.g. Cassinelli 1979). From X- ray observations one finds that for early-type stars there is a correlation between X-ray luminosity and bolometric luminosity (Pallavicini et al. 1981) in contrast to the situation in the late- type stars, where there is a correlation between X-ray luminosity and rotation. The X-ray emission in early-type stars shows the presence of coronal structures in these stars. It has been proposed that these X-ray emitting regions are located in the hot post-shock regions of moving atmospheric gas blobs or trains of shocks which are accelerated by the intense radiation field in the atmosphere and wind of the early-type stars (e.g. Lucy 1982a,b). These gas blobs develop from small acoustic disturbances via radiation driven instabilities (Castor 1987, Rybicki 1987). Time-dependent calculations of the radiative amplification of small acoustic disturbances into strong shocks have been performed by Wolf (1987) and Owocki et al. (1988).