the absorption is absent. On the following two nights the profile may have either a weak or an absent absorption. On only one occasion (epoch 1991) there are *strong* profiles on two consecutive nights. Since the opacity depends on the mass-loss rate and on the ionization structure of the wind, its variation implies changes in these parameters.

The terminal velocity of HD 50896 is estimated at -1900 km s^{-1} (Prinja, Barlow, & Howarth 1990; Howarth & Schmutz 1992). However, St-Louis et al. (1993) report that the most conspicuous absorption-line variability takes place between about -1800 and -2800 km s^{-1} for the major UV P Cygni lines. This implies that most of the variability occurs at speeds exceeding the normal maximum outflow velocity of the wind. The N V 4604 line does not provide information on these very large speeds, but it does tell us that the instability appears to be present at lower speeds as well. Given that UV lines arise from atomic transitions that are more optically thick, they are able to probe lower density regions of the wind. Such low density regions having high velocities are predicted to occur as a result of radiative instabilities (Owocki, Castor, & Rybicki 1988). Thus, the *absent* type N V 4604 profiles may occur when the radiative instabilities are more prevalent. We speculate that the *strong* type profiles might correspond to a more stable state of the wind, when fewer shocks are present. St-Louis et al. (1993) also concluded that the radiative instabilities probably play an important role in governing the line-profile variations that are observed in the UV.

One intriguing aspect of these perturbations is that significant changes in the line-profiles are observed on timescales of $\sim$1 day and no shorter. St-Louis et al. (1993) show how the UV P Cygni lines undergo changes on a day-to-day timescale. This is in contrast with, for example, the opacity enhancements mentioned above for 68 Cyg, where variations on timescales as short as 1 hr were observed (Prinja & Howarth 1988). Also relevant to this discussion is the presence of relatively narrow emission-like features ("sub-peaks") superposed on the broad He II emission lines. Variable sub-peak structure in WR stars is generally associated with the presence of an inhomogeneous stellar wind. However, Drissen et al. (1989) concluded from their polarimetric data that the smaller-scale "blob" activity observed in other WRs is quite low in HD 50896. Hence, the variability of HD 50896 seems to originate in what might be described as organized episodes of unstable and stable states, rather than the random-like inhomogeneities that are present in many other WRs. Also important to note is that at least one other WN-type star, WR1 (HD 4004) displays a variability similar to that of HD 50896 (Flores et al. 2007), so HD 50896 is not unique (see, also, St-Louis et al. (2009) for a discussion of varibility in several other WR stars). Also, in the WN5 binary V444 Cygni, the N V 4603-21 doublet undergoes phase-dependent variations qualitatively similar to those of HD 50896. Specifically, the P Cygni absorptions are deepest during one orbital phase interval (primary eclipse), becoming weaker in the neighborhood of the secondary minimum, and disappearing completely at secondary eclipse (Münch 1950). This suggests that the weak P Cygni absorptions are indicative of a perturbed wind structure[8] which, in the case of V444 Cyg, probably results from a combination of irradiation and surface distortion due to tidal effects. In the case of HD 50896, the profiles with an absent P Cygni absorption are more prevalent than in V444 Cyg, indicating that the perturbation causing the absorption to vanish occurs more frequently.

The model we have applied to fit the line profiles is one based on the simplest set of assumptions; that is, we assume that the line profile variability is caused by variations in the wind properties, specifically, the opacity. Because we fit only the blue wing of the line profile, our conclusion applies, strictly speaking, primarily to the column of wind that is projected onto the continuum-emitting core. Hence, we are unable to distinguish between a cyclical (in time) variation of the entire wind structure and the variations that would be caused by different zones of the stellar wind (each with different properties) entering and leaving our line-of-sight due to stellar rotation.

Matthews et al. (1992) suggested a model consisting of two oppositely-directed jets, emerging at an angle with respect to the observer's line-of-sight. They suggested that as the star rotates, the jets would alternately come into and out of the line-of-sight, thus producing the observed variability. Although the origin of such jets remains obscure, the general concept of a quadrupole-like wind structure may have a physical basis. Koenigsberger, Moreno, & Harrington (2010) proposed that the perturbations produced by the tidal forces in the eccentric binary system HD 5980 could lead to a variable wind structure as the system goes from periastron to apastron. Furthermore, since the tidal effects are stronger in the quadrant facing the companion than in the adjacent quadrants, the tidal perturbations

[8]The absent absorptions are attributed to the physical eclipse by Marchenko et al. (1997).