

COMMENT ON THE PRECEDING PAPER BY CHANDRA AND PRASAD

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The main contribution of Chandra and Prasad in their preceding paper is to retain the terms multiplied by $\cos(2k_1z)$ which I neglected in Krishan (1985). The justification for doing this, perhaps not mentioned explicitly enough in my paper, was to retain the axial variation only at the largest spatial scale, since the aim was to compare the result with observation. The $\cos(2k_1z)$ terms give variation at half the spatial scale. However, one can see that conclusions of Chandra and Prasad's paper are in no way different from those of mine, specifically the one that the radial width of the hotter lines does not exist all along the length of the loop.

I think that the calculations of Chandra and Prasad are unnecessarily over-emphasizing the linear axial variation in Figures 1(b) and 2(b) of my paper. The slight curvature present in their Figure 2(b) may be due to a more accurate graphical representation. Again, in no way does it affect the conclusion of my paper. Their result of axial increase up to $3L/8$ and then a decrease up to the apex may be a consequence of including $\cos(2k_1z)$ terms. Further, the assumption $\eta_0^2 \lambda_0^2 > \eta_1^2 \lambda_1^2$ made by Chandra and Prasad as well as by me reduces significantly the contribution of the terms $\cos(2k_1z)$ since they are multiplied by $(\eta_1^2 \lambda_1^2)$.

I strongly protest the use of words 'some missing terms' and 'errors' in the preceding paper, as the terms have been intentionally neglected. Chandra and Prasad should have simply pointed out that terms with $\exp[2ikz]$ and $\cos(2k_1z)$ had not been taken into account by Krishan (1985) and they should have particularly stressed the inclusion of terms proportional to $\cos(2k_1z)$ which were neglected in my paper because they are of higher order.

In summary, I find this Chandra and Prasad's contribution a very trivial extension of my work.

Reference

Krishan, V.: 1985, *Solar Phys.* **97**, 183.