General Comments

The paper by Maunder et al. presents a comprehensive effort to understand the spatial/temporal interplay between a CME and SIR by combining mostly in-situ measurements from a variety of relatively closely spacecraft in the ecliptic and with Ulysses out of the ecliptic. The authors describe an extensive analysis and offer a quite creative interpretation that appears to account for the ecliptic measurements, at least. I had a positive initial reaction to the work until I realized that the authors never investigated the origins of the phenomenon despite the fact that 'origins' are mentioned in the title of the paper. As soon as I tried to connect the in situ measurement with the solar origins, I realized that the analysis suffers from a grave shortcoming; it is inconsistent with the solar/coronal observations. Of course, this is not my paper and I have neither the time nor the remit to delve into a detailed analysis of the remote sensing observations. But even a rather casual analysis, which the authors should have performed, throws a lot of doubt into the results of this paper. I will go into the details below to justify my recommendation to reject the paper in its current form.

Specific Comments

1. The authors offer no analysis to prove that the June 27 CME that very likely crossed Ulysses is the same event in the ecliptic. This is despite the availability of imaging observations from three spacecraft (STA, STB, and SOHO) that can, rather easily, provide estimates of both the direction and longitudinal width of the CME. A simple comparison of COR2-A/B and HI1/2-A/B indicates that the CME propagates well westward of the STA. There are absolutely no signatures, even weak ones, of a front associated with the June 27 CME, crossing the HI1-A FOV from June 27-July 3. However, there are distinct, but diffuse, fronts in H11/2-B, consistent with a structure crossing over, or near, STB. These imaging observations cannot be reconciled with the June 27 CME position and width. A much more detailed analysis using 3D reconstructions is needed to support the authors' central argument.
2. The authors make no attempt to estimate the liftoff of the transients they discuss in the paper. It should have been a clear discussion of those if they are indeed interested in ‘origins’. My quick ballistic backpropagation (using rough numbers from the provided figures) suggests that the MC(L) in STB could have been lifted on June 29, ~20:00 UT. Therefore, it cannot be related to the 27 June CME.
3. There are no indications of a CME lifting off from the front part of the disk between June 27-June30 (likely time for encounters in STA-STB-L1). This is not unexpected, since this is a solar minimum period, with many CMEs being ‘stealth’ events (Robbrecht et al. 2009). The angular spread of available imagers is too narrow to allow the detection of these ‘stealth’ (almost surely, streamer-blowout CMEs). I guess that this dearth of signatures led the authors down the erroneous association to the western CME.
4. Actually, the origin of the MC(L) is relatively easy to constrain since it occurs between two high-speed stream (HSS) crossings. The HSS studied here arises from the coronal hole, just east of AR10961. This naturally explains why STB sees signatures before STA. The coronal hole configuration on the disk is another strong sign that the June 27 CME cannot expand towards the Sun-Earth line. There are two coronal holes in the way.
5. The Ulysses-related sections are irrelevant. The self-similar expansion fitting is particularly suspect since it is performed on a single-viewpoint. If the authors had taken all available data into account, they would have noticed that this CME cannot be associated with the ecliptic signatures.
6. The Enlil simulations do not fit the in-situ observations and should not have been presented. The CME measurements are also not given. Based on my earlier comments, they seemed to be flawed anyway.
7. The in-situ measurements are not consistent with the interpretation of the same structure crossing all three spacecraft. The B and v profiles at ACE and STB seem similar enough to arise from the same structure, but the STA profiles are very different. They could very well be different structures. Observations indicate the ejections of MC-like blobs from streamers at quite regular

cadences, 4-6/day, so it is quite likely that STB/ACE and STA encountered different blobs from the same streamer.

8. As a final remark, I would like to offer a couple of suggestions for salvaging this work. It should focus on the ecliptic signatures only (no Ulysses). It should try to truly identify the origins of the structures, possibly along the lines of Fig. 6 but addressing convincingly the possibility of different structures in the various spacecraft. I would also suggest that the very faint-halo CME on June 25 may actually be the origin of the MC(L)s. I did a quick h-t plot of the LASCO/c3 images and derived a speed of 194 km/s, which results in a 1au arrival on 3 July, roughly. It is a bit of a stretch but not too unlikely for a deep minimum configuration.