

### General Comments

I thank the authors for adapting some of my suggestions. The revised manuscript is much clearer now, thanks, partially, to the new title. I can now tell that the main result of the multi-spacecraft analysis is the derivation of the ‘aging’ of the MCL-SIR interaction, thanks to the small angular separation and the solar minimum background. I believe that this is a great use of the data would actually suggest emphasizing it more in the abstract.

However, I still find a couple of logical inconsistencies between the data and the interpretation that I detail below. Once the authors resolve those, I would be glad to recommend the manuscript for acceptance.

### Specific Comments

#### 1. Sec 4.1:

- a. The use of the synoptic maps is a welcomed addition. But the estimation for the time of the MCL launch is a bit simplistic. The MCL is moving at 350 kms/, not 600 km/s. I would use the former speed as the upper limit for the ballistic mapping. Actually, the MCL would have to have a lower initial speed (I estimated 190 km/s in my earlier review) if it was accelerated by the SIR sometime after its launch. A 300-350 km/s speed could also be used, if the authors were to assume that the interaction occurred much later and closer to 1 AU.
- b. The authors could actually estimate when and where the MCL-SIR interaction began, using the distance between the CH and the AR (although the blob should have emerged before July 1<sup>st</sup> based on my speed argument above) and the measured speeds. In any case, I don’t think that the calculations will change the big picture but they would make the analysis more self-consistent and provide a clearer backdrop to support the temporal interpretation of the interaction manifested in the 3 spacecraft (which I find intriguing).

#### 2. Sec 4.2:

- a. The section reads much better now with the two hypotheses (separate MCLs vs. single MCL) clearly laid out in the beginning. However, the estimate of the MCL longitudinal size seems a bit off. It is based on statistics (Liu et al 2006) rather than a direct estimate from the data. If I use the radial distances for STA and STB from Table 1, assume an average propagation speed of 355 km/s (Table 2) and take the 12 hr difference between STA and STB in the MCL detection, I obtain a minimum longitudinal length of 0.355AU, which is marginally larger (11%) than the 0.318 AU STA-STB separation. The actual structure could be larger, of’ course, but the quoted range of 0.42-0.72 AU (i.e. 33% - 226% wider than STA-STB separation) in the manuscript leads to a false sense for the likelihood of the single MCL interpretation.
- b. The following is more of a list of suggestions than criticisms. I think that the discussion of the interpretation is too short and Fig 8 a little too simple to give justice to the results of this work. Could the authors represent the different expansion speeds across the MCL a bit better, demonstrating that the STA part is more constricted while the others are expanding faster? Also showing, somehow, that the MCL is entrained along its east sector but not towards STA should also make a great visual impact. Also, the discussion may benefit by discussing a bit more the ‘aging’ of the MCL-SIR interactions (has this been seen before? Are they any recent PSP and SO results?). The possible implications for the geoeffectiveness of these structures vis-à-vis their ‘aging’ would also be an interesting aspect to mention. In any case, these are just suggestions.

### Minor Comments:

3. Some references were not processed properly by the latex compiler (e.g. ‘?’). Please check the final manuscript.

4. Fig 1: why are the Parker spirals plotted for 600 km/s wind instead of the ~350 km/s wind actually measured at all three spacecraft for the MCL?