

Interactive comment on “Review article: Kinematic models of the interplanetary magnetic field” by Christoph Lhotka and Yasuhito Narita

Anonymous Referee #1

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This draft reviews basic concepts of the large-scale heliospheric magnetic fields mainly from the kinematic framework. I have the following (mostly minor) comments:

1. Fig.2 The blue, red, and gray lines should be defined in the caption.
2. The caption of Fig.3 The authors should explain the line types and the numbers (24.47h, etc.: Rotational period) in the caption or in the panel.
3. Fig.4 and Section 2.1.4 In the section 2.1.4, it seems that the authors focuses on the situation, in which $B_{\theta}=0$ (eq.20). But Figure 4 shows field lines with non-zero B_{θ} . Probably, the formulation of eqs.(22) - (25) in the same section takes into account B_{θ} . I think more explanations are necessary, which is friendly to readers.

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4. eq.(49) The scaling should be r^{-1} , instead of r . (I think this is simply a typo.)
5. eq.(50) It is probably better to refer to old works (Alazraki & Couturier 1971; Belcher 1971), in addition to the recent works that are already cited in the present paper.

Interactive comment on Ann. Geophys. Discuss., <https://doi.org/10.5194/angeo-2018-133>, 2018.

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