In order to forecast the effects of magnetosheath jets, we need to know:

1. What solar wind conditions control jet formation?
2. What solar wind conditions control jet propagation?
3. When will jets impact the magnetopause most often?
Formation at bow shock vs Propagation through magnetosheath

Further info: LaMoury et al., 2021, JGR: Space Physics
When will jets hit the magnetopause most often?

- Formation and propagation effects are independent.
- Jets are most likely to hit the magnetopause during fast-type solar wind.
- May have interesting implications for solar wind transients, e.g. CMEs and SIRs.
- We have made a step towards forecasting the effects of jets purely from measurements of the upstream solar wind.

Conclusions and Implications

Further info: LaMoury et al., 2021, JGR: Space Physics

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