



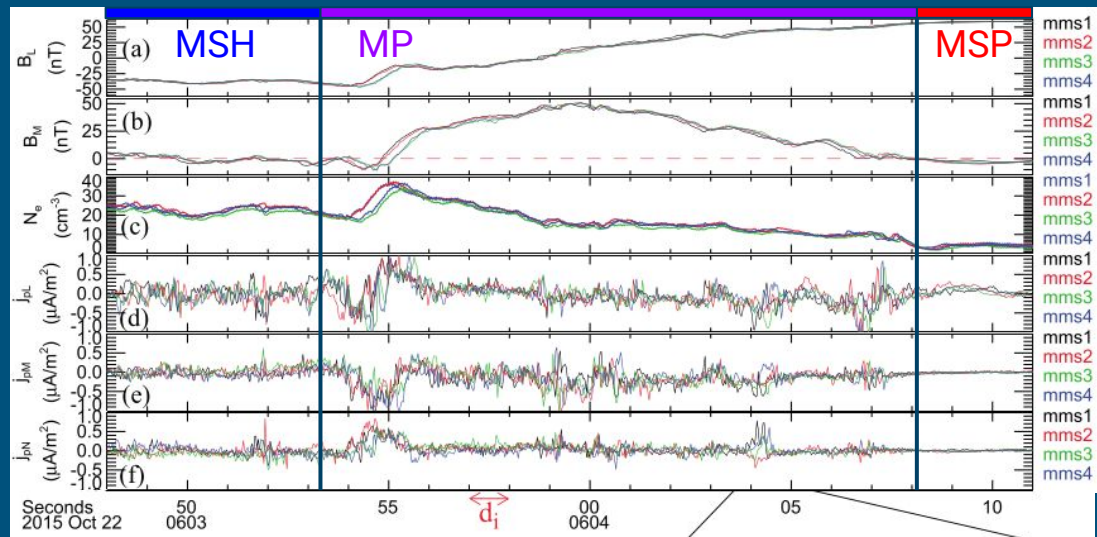
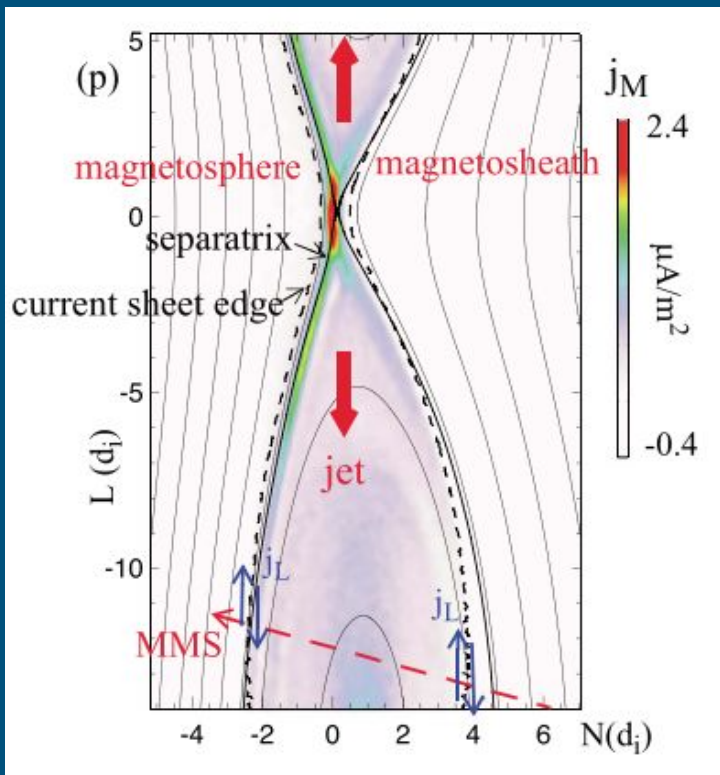
# Onset of electron-scale turbulence in the reconnection exhaust

---

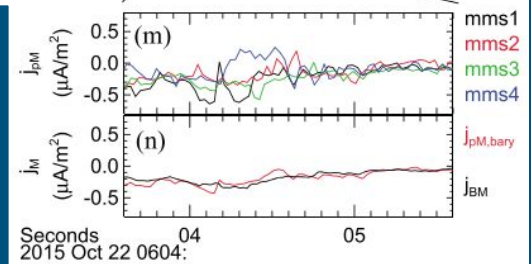
Matthew R. Argall,  
Rick Wilder, Stefan Eriksson



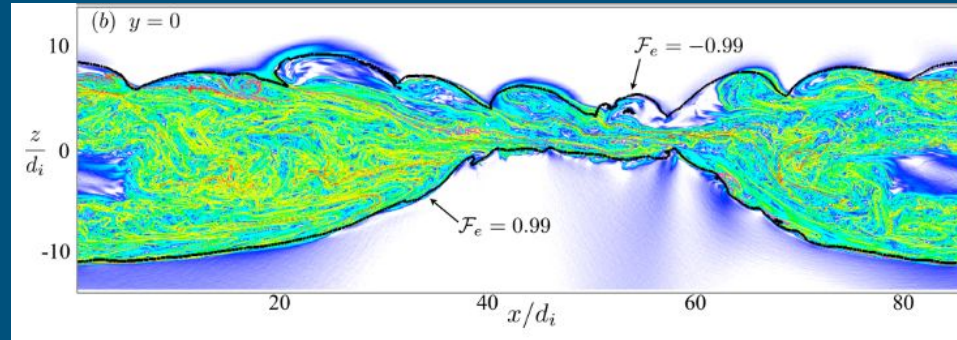
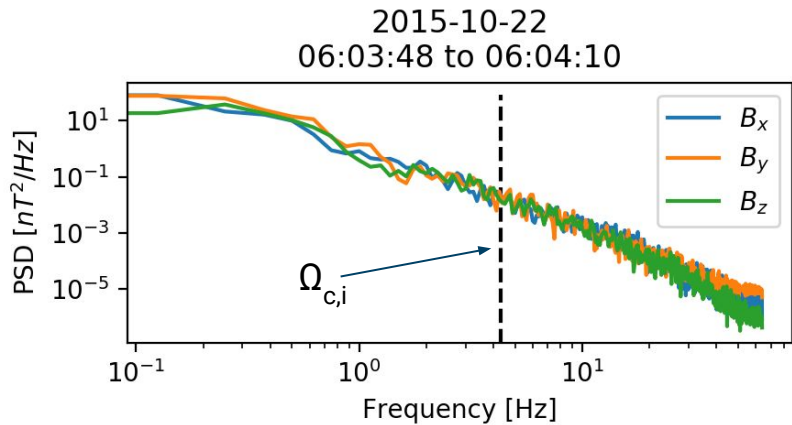
# MMS Encounters Filamentary Current Sheets



[Phan+ GRL 2016](#)



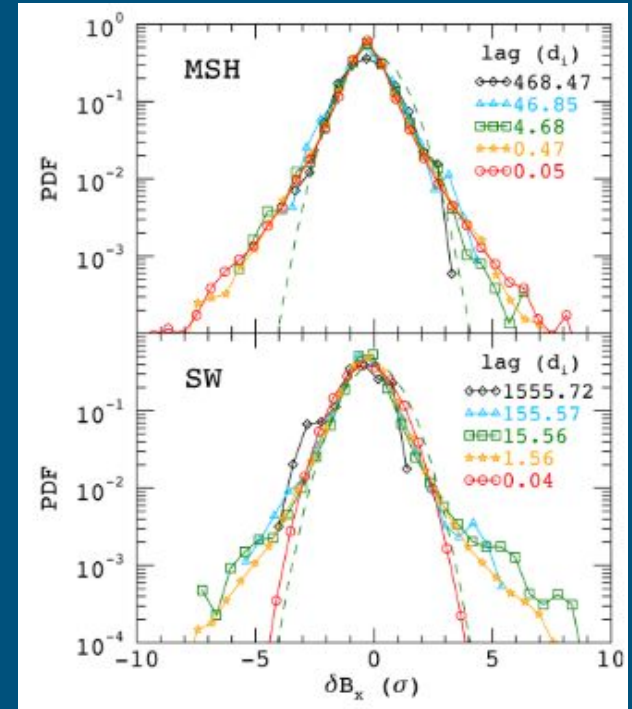
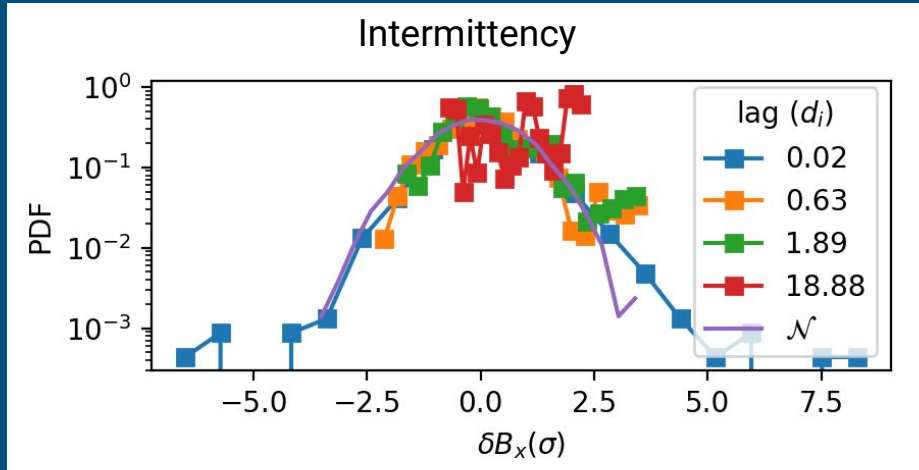
# Turbulent Dissipation Has Not Yet Begun



[Daughton+ PoP 2014](#)

No spectral break at the ion cyclotron frequency

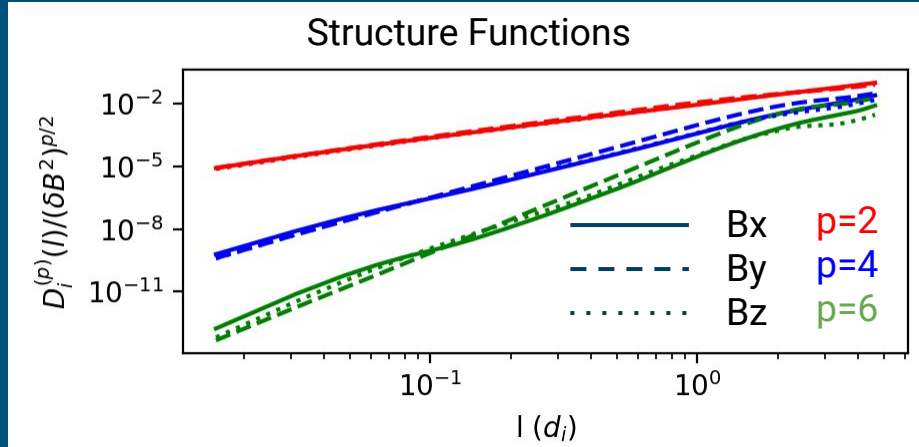
# Turbulence Develops at Small Scales



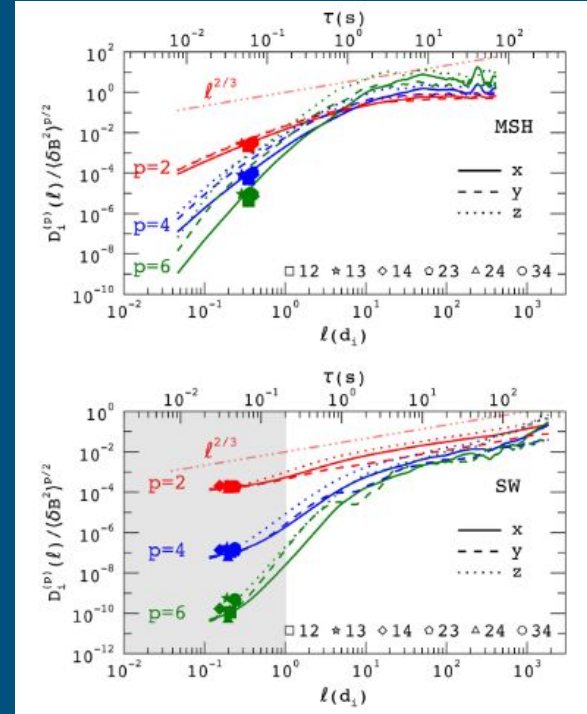
[Chhiber+ JGR 2018](#)

Intermittency non-Gaussian at small scales, different from MSH and SW

# Early Stages of Turbulence



No sharp gradients at small scales

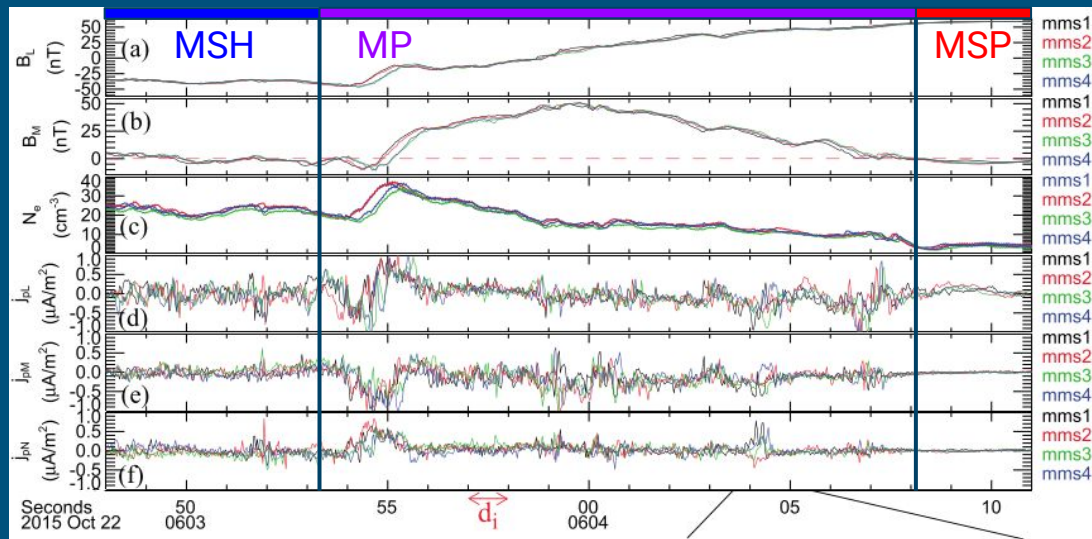


# Summary

- Reconnection exhaust exhibits filamentary current structures
- B-field does not show signs of turbulent structures
  - B is smooth -->
  - $\partial B/B$  is small

## Next step

- Are high(-er) frequency (smaller scale) B-field fluctuations are generating the current structures?



[Phan+ GRL 2016](#)

# Questions?

Comments?