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Oral
(Invited Talk)
The magnetized plasma turbulence is characterized by disordered behaviors in space and in time. It is inherently a nonlinear phenomenon which couples motions at various scales. So one of the keys to making progress in magnetized turbulence is to understand how multiple scales interact. Given that PUNCH will admit sufficiently high spatial resolution to probe scales of turbulence within the upper end of inertial range, close to integral scale, the idea of data assimilation (DA) can be used to synthesize available observational data at large scales and numerical simulations to improve the prediction capability of numerical models, in particular, at small scales. DA has been developed and successfully applied in numerical weather forecasting in the last few decades, and has been used in operational weather prediction. However, its applications in magnetized turbulence are only in the early stage. We will discuss the potential of DA by which PUNCH data is assimilated in turbulent simulations to improve our modelling or prediction of turbulent fields.
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Invited or Virtual?
(Invited Talk)