PUNCH: Connections to the Magnetosphere and the Aurora
Bea
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Oral
(Invited Talk)
The heliosphere is a dynamic system composed of interconnected subsystems, offering rich opportunities for cross-disciplinary research. The PUNCH mission will provide unprecedented insights into the solar corona while also presenting a unique opportunity to study magnetospheric and ionospheric processes, including high-altitude aurora. Although high-altitude auroras have been observed by previous missions, conjugate observations—integrating data from in-situ spacecraft, ground-based observatories, and other missions—holds the potential to unlock new insights into these phenomena.
Additionally, PUNCH presents an opportunity to expand interdisciplinary collaboration by developing and utilizing a variety of techniques to study heliospheric systems. For example, measurements at Earth can help validate these techniques, and methods developed to analyze the dynamics of the solar corona can be adapted to study the magnetosphere and ionosphere. By leveraging these synergies, PUNCH allows and fosters interdisciplinary investigations.
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