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The Merging of a Coronal Dimming with the Southern Polar Coronal Hole During *Solar Orbiter*'s First Perihelion

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We report a partial filament eruption in the southern solar hemisphere that occurred on 18 March 2022 during the first science perihelion of *Solar Orbiter*. The filament erupted into a coronal mass ejection (CME), producing coronal dimmings at the footpoints of the erupting structure. The expanding dimming then merged with the adjacent southern polar coronal hole. This merging of two open magnetic structures is observationally rare and poorly understood. We use remote sensing data from multiple co-observing spacecraft to understand the physical processes during this merging event. The evolution of the merger is examined using Extreme-UltraViolet (EUV) images obtained from the instruments onboard the *Solar Orbiter* and *Solar Dynamic Observatory* spacecraft. The plasma dynamics are quantified using spectroscopic data obtained from the EUV Imaging Spectrometer onboard *Hinode*. The preliminary results show that the coronal hole and coronal dimming become indistinguishable from each other after the merging. Several plasma upflow regions were observed throughout the merging event, suggesting the opening of magnetic field lines. The brightening of bright points and coronal jets inside the merged region further imply ongoing reconnection processes. This work also has implications for the formation of coronal hole/open field regions and the origin of solar wind from coronal dimming and coronal hole boundaries.