Alberto
Vasquez
Instituto de Astronomía y Física del Espacio (IAFE, UBA-CONICET) Buenos Aires - Argentina
Federico Nuevo, Instituto de Astronomía y Física del Espacio (IAFE, UBA-CONICET) Buenos Aires - Argentina
Federica Frassati, Istituto Nazionale di Astrofisica (INAF), Osservatorio Astrofisico di Torino (OATo), Pino Torinese–Italy
Alessandro Bemporad, Istituto Nazionale di Astrofisica (INAF), Osservatorio Astrofisico di Torino (OATo), Pino Torinese–Italy
Richard Frazin, Department of Climate and Space Sciences and Engineering (CLASP), University of Michigan, Ann Arbor–USA
Marco Romoli, Dipartimento di Fisica e Astronomia, Università degli Studi di Firenze (UniFi), Firenze–Italy
Nishtha Sachdeva, Department of Climate and Space Sciences and Engineering (CLASP), University of Michigan, Ann Arbor–USA
Ward Manchester IV, Department of Climate and Space Sciences and Engineering (CLASP), University of Michigan, Ann Arbor–USA
Poster
The determination of the three-dimensional (3D) thermodynamic structure of the solar corona is crucial for advancing our understanding of the physical processes responsible for the heating and acceleration of the solar wind. Towards this end, solar rotational tomography currently uses sequences of white light (WL) or extreme ultraviolet (EUV) images of the solar corona to determine the 3D distribution of the electron density and temperature. The Solar Orbiter Metis coronagraph captures WL and Lyman-alpha images of the solar corona simultaneously, allowing for the tomographic reconstruction of the 3D distribution of the Lyman-alpha Doppler dimming term. This new diagnostic has the potential to place constraints on the 3D distribution of the solar wind speed in the corona. To probe this concept, we present preliminary results based on synthetic images computed from 3D MHD simulation of the solar corona and solar wind.
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