

Cosmic ray modulation beyond the heliopause

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With the Voyager spacecraft crossing of the heliopause (HP) expected in the near future, it remains to be seen whether these spacecraft will be able to directly measure the pristine galactic cosmic ray (CR) local interstellar spectrum, or if this spectrum is already modulated prior to reaching the HP. Using a newly developed hybrid CR modulation model (a CR transport model coupled to a MHD simulated heliosphere), we relax the condition of the HP being the modulation boundary and investigate the effect of modulation beyond the HP. We discuss under which conditions this previously unexplored modulation region may have a significant effect on the observed CR flux near the HP.