



The impact of cosmic rays on galaxy formation from kpc to AU scales

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Multiphase gas structure is ubiquitous in our universe. Recent observations suggest that large quantities of cool (10^4 K) gas are detected in the circumgalactic medium (CGM) of galaxy halos, which extends up to a few times of galactic virial radius. In addition, warm gas at a few 10^5 K is found to be tightly associated with the star-forming galaxies, but not the quenched ones. However, the origin and fate of such multiphase gas still remain unclear. In this talk, I will discuss how cosmic rays can play a crucial role on the formation and stability of the multiphase gas in the CGM, on both kpc and AU scales.

References

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