

Abstract Submitted
for the SES17 Meeting of
The American Physical Society

Determining the 3D Orientation of High Velocity Clouds by Monte Carlo Modeling KRISTY SAKANO, Univ of NC - Chapel Hill — The star formation history of the Galaxy suggests continual gas accretion. Some of this star formation fuel appears in the form of high velocity clouds (HVCs). The origin of HVCs is still debated. One crucial ingredient in this puzzle is the generally unavailable trajectory information. Yet, many of the compact HVCs show clear signs of interaction with the background halo medium. We present a method to determine the 3D velocity vector of compact HVCs. The method is based on a HVC's morphology and kinematics. We calibrate the method using analytical and numerical model HVCs. We present an efficient algorithm to determine the 3D orientation of observed compact HVCs. With this method, Galactic halo gas dynamics as traced by compact HVCs can be mapped.

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Date submitted: 11 Oct 2017

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