

Abstract Submitted  
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**Are Different Velocity Surveys Consistent With Each Other?**

DEVDEEP SARKAR, University of Kansas, PROF. HUME FELDMAN COLLABORATION<sup>1</sup> — The study of velocity fields is one of the most effective methods to constrain the cosmological density parameter  $\Omega_m$  and the amplitude of density fluctuation  $\sigma_8$ . I will present a comparison of the estimates of the bulk flows of samples of galaxies in some recent surveys, namely, MARK III, SFI, ENEAR, and RFGC. In some earlier attempts of this type with LP and RPK galaxy catalogs (Watkins and Feldman, 1995) and with SMAC, LP and three other surveys (Hudson et al., 2000), the samples were too sparse to put significant constraints on the power spectrum and resulted in a low level of expected correlation between the bulk flow estimators. The order of magnitude larger sample sizes of the recent independent proper distance catalogs help us get a much higher correlation and thus, better constraints. The method I discuss could, in principle, be used to test the consistency of all the latest velocity field surveys.

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