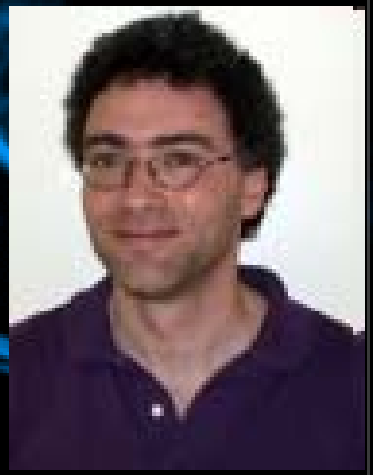
Theory Seminar

Monday, May 16, 2011 2:10 PM 831 Pupin Hall

Peculiar Velocities as a Probe of Dark Energy

Peculiar velocities of galaxies and galaxy clusters contain a significant amount of information about the growth of structure and the expansion history of the universe. Future experiments promise to mine this information, through the Sunyaev-Zeldovich effect with galaxy clusters and with large catalogs of type-1a supernova which can be used as standard candles. I will discuss the extent to which these data sources may provide future constraints on dark energy and modified gravity. In particular, the mean pairwise velocity statistic is especially promising because it likely is much less sensitive to systematic errors than most other contemplated dark energy probes.



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