Quasilocal Energy in FRW Cosmology[1] MARCUS AFSHAR, Univ.
of California at Davis — I present a calculation of the quasilocal energy of a generic
FRW model of the universe. The results have the correct behavior in the small-
sphere limit and vanish for the empty Milne universe. Higher order corrections are
found when comparing these results to classical calculations of cosmological energy.
This case is different from others in the literature chiefly in that it involves a non-
stationary spacetime. This fact can be used to differentiate between the various
formulations of quasilocal energy. In particular, the formulation due to Brown and
York is compared to that of Epp. Only one of these is seen to have the correct
classical limit.

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