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Systematic Corrections to the Deceleration Parameter due to Local Cosmological Inhomogeneity ALI VANDERVELD, IRA WASSERMAN, EANNA FLANAGAN, Cornell University — We will discuss some of the ways that local cosmological inhomogeneity has been found to affect our interpretation of the measurements of the redshifts and luminosity distances of Type Ia supernovae. This discussion will focus on the systematic corrections that one would find even for very large sample sizes as a result of the "fitting problem," wherein the fitting of data to what we would see in a homogeneous universe introduces errors due to the non-linearity of general relativity. We will then address the recent claim that this effect could be large enough to explain the seemingly anomalous supernova data without the need to introduce dark energy or modified gravity.

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