Theory Walk Through for Cross-Correlating Redshift-Free Standard Candles

Mukherjee and Wandelt (2018) Paper

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1 Introduction

2 Apparent Magnitude:

$$m = 5log_{10}(\frac{D_L(z)}{pc}) + M - 5 \tag{1}$$

$$D_L(z) = \frac{c}{H}(1+z)\int_0^z \frac{dz'}{\sqrt{\mathcal{E}(z)}} \tag{2}$$