Abstract Submitted
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The shrinking Hubble constant. RUSSELL COLLINS, retired, U. T. Austin — The extraction of the Hubble constant from a plot of the measured distance of stellar objects vs. red shift Z is flawed in 3 ways. Distances must be extrapolated to present time. The Doppler portion of the red shift must be found. The gravitational changes of the metric through which the light passes must be accounted for. Using a model of the big bang as a sphere of radius R=cT, with uniform density and absent acceleration, extrapolation is had by multiplying distance by $1+\beta$. The red shift can be separated into Doppler and gravitational components, upon recognizing that the time of the event, T*, connects them. The gravitational potential decreases as the big bang expands, and this affects the measured optical distance. Correction is had using mass-metric relativity (arxiv physics/0012059), and fully accounts for curvature in high Z Hubble plots. Using a data set to Z=1.2 by Riess (AJ/journals/v116n3/980111), one finds T=23.5 billion years (Ho=41.6). This is older than the present consensus value, T=14 billion years (Ho=71). Plotted correctly as present distance vs. velocity, a linear Hubble plot is obtained. Full details at arxiv physics/0601013.

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