

Abstract Submitted
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Some Pins for Cosmic Ladder - New Correlations on Hubble Diagram¹ KARAN MOLAVERDIKHANI — After Hubble's law detection, scientists tried to measuring and improving the Hubble Constant for finding a better estimation of Universe Age. Development of some new methods and applying new observational technologies help them to find a better view of Universe. They found a Ladder for reaching the End of World. The steps of this Cosmic Distance Ladder are Radar measurement, Parallax, Main Sequence Fitting, Cepheids, Tully Fisher relation, Type Ia supernovae and finally Hubble's law. But we can't use the Near Tools instead Far Tools, because they haven't enough accuracy on that range. Also, using the Near Tools (like luminosity flux or size and type of galaxies) are easier than using the standard candles on cosmic ladder. On the other hand, with applying the Tools at the different ranges, we can allocate a new point of view for using them as new Tools. We find some relations between relative distance-redshift (Near Tools) and velocity-redshift (today cosmic distance ladder result) and expand these relations to using in High Redshift zone. With choosing about one million galaxies (at any type and any redshift) in SDSS and surveying their behavior on these diagrams, we got a bunch of correlations on Hubble Diagram especially on $z > 1$ and offer some pins for extension the Ladder.

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