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# The Dipole of the Pantheon+SH0ES Data

*Thursday, 1 June 2023 16:50 (5 minutes)*

We determine the dipole in the Pantheon+ data. We find that, while its amplitude roughly agrees with the dipole found in the cosmic microwave background which is attributed to the motion of the solar system with respect to the cosmic rest frame, the direction is different at very high significance. While the amplitude depends on the lower redshift cutoff, the direction is quite stable. For redshift cuts of order $z_{\rm cut} \simeq 0.05$ and higher, the dipole is no longer detected with high statistical significant. An important rôle seems to be played by the redshift corrections for peculiar velocities.

## Would you be interested in presenting a poster? (this will not impact the decision on your talk)

no

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