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Confronting the cosmic dipole tension

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I discuss our ongoing efforts to measure the cosmic dipole in new galaxy surveys, referencing the systematic effects which can influence its measurement and forecasting the contribution of forthcoming surveys. This is motivated by the nascent cosmic dipole tension: the disagreement between the CMB dipole and counts of extragalactic sources, which has reached a high level of statistical significance ($> 5\sigma$). It is key that we understand whether this anomaly genuinely means that the rest frames of the CMB and extragalactic sources do not coincide. If so, it would throw doubt on the implicit assumption of the cosmological principle in the FLRW spacetime metric, uprooting our cosmic paradigm.

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