

# Analyzing the Large-Scale Bulk Flow using CosmicFlows4: Tension with the Standard Cosmological model

*Friday 7 February 2025 09:00 (30 minutes)*

We present estimates of the Bulk Flow in volumes of increasing radii using the minimum variance method with data from the CosmicFlows4 catalog. Contrary to expectations, we find that the Bulk Flow amplitude increases with increasing radius, with the Bulk Flow amplitude in a volume of radius  $200h^{-1}\text{Mpc}$  being large enough to have only a 0.003% chance of occurring in the Standard Model. We discuss the detailed characteristics of the Large-Scale Bulk Flow with an eye to better understand its origin.

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