

# Absolute Motion and Quantum Gravity

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## Abstract

A new information-theoretic modelling of reality has given rise to a quantum-foam description of space, relative to which absolute motion is meaningful. In a previous paper it was shown that in this new physics Michelson interferometers show absolute motion effects when operated in dielectric mode, as indeed such experiments had indicated, and analysis of the experimental data showed that the measured speeds were all consistent with the Cosmic Microwave Background (CMB) dipole-fit speed of 369 km/s. Here the new physics is applied to the Michelson-Morley 1887 interferometer rotation curve data to demonstrate that the interferometer data is in excellent agreement with the CMB direction (RA, Dec)=(11.20h,-7.22deg) as well. This data also reveals a velocity component caused by the in-flow of the quantum foam past the Earth towards the Sun at 30+/-15 km/s, while analysis of the Miller interferometer data of 1933 gives 49 km/s, compared to the theoretical value of 42 km/s. This observed in-flow is a signature of quantum gravity effects in the new physics.

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