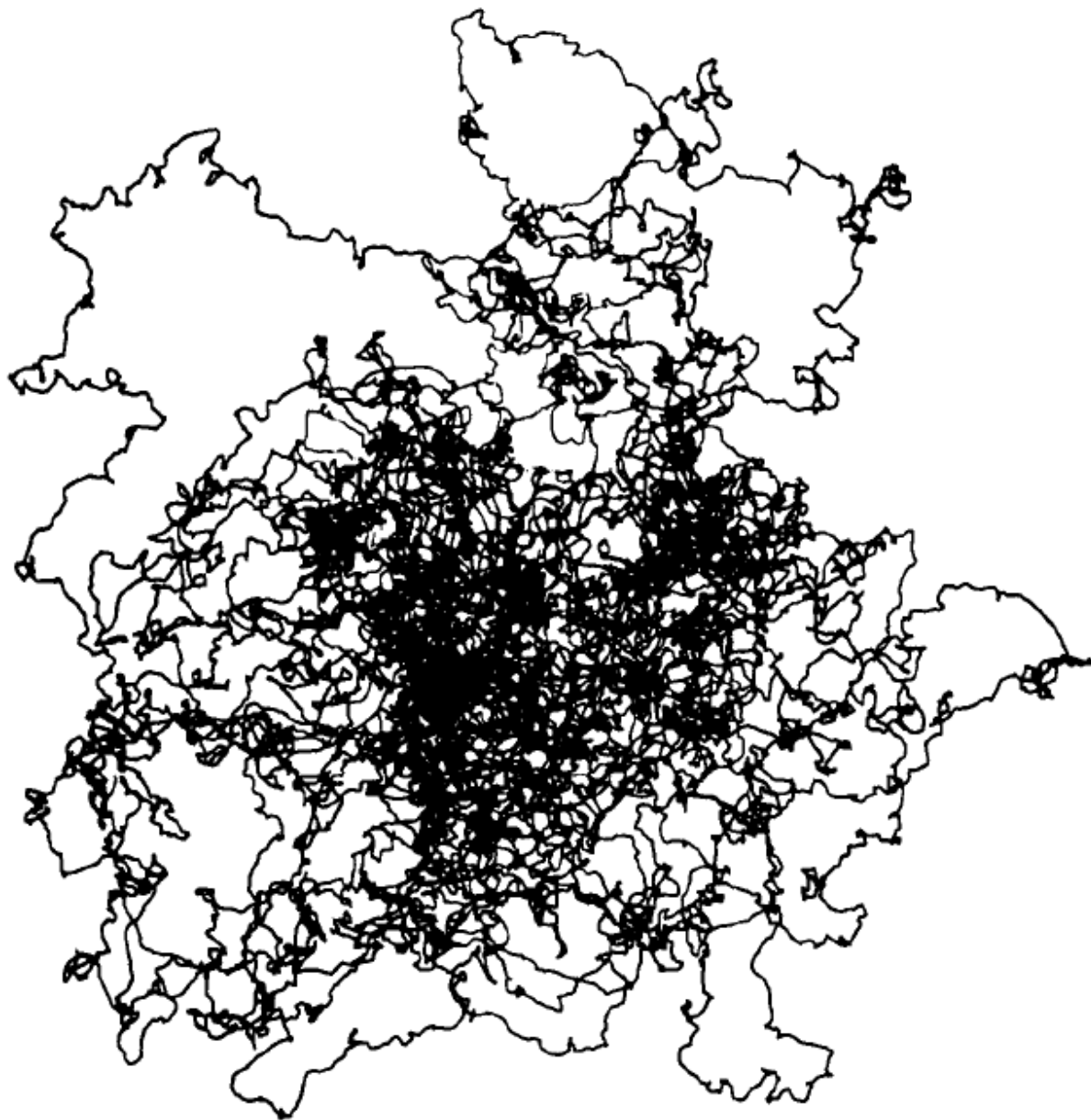


Brownian motion of a 4 ton aluminum mass

Search for waves in spacetime warp. The output of the gravitational wave detector at Bell Labs in 1973 is shown. The signal is the amplitude and phase of the longitudinal resonant mode (710 Hz) of a 12 foot long aluminum bar with mechanical Q of one million. The majority of the random wandering, shown over one day, is due to thermal excitation of this resonance: Brownian motion. The effective temperature was 9 deg K.



4×10^{-15} mm = 1/2000th the diameter of Al nucleus