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Pathwise Kallianpur Robbins laws for planar Brownian motion

The Kallianpur Robbins law describes the long term asymptotic behaviour of the distribution of the occupation measure of a Brownian motion in the plane. In this talk it is shown that this behaviour can be seen at every typical Brownian path by choosing either a random time or a random scale according to the logarithmic laws of order three. We also prove a ratio ergodic theorem for small scales outside an exceptional set of vanishing logarithmic density of order three.