

SELF - INTERACTING WALK AND THE GAUSSIAN FIELD II

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In the first lecture the square of a Gaussian field was related to the local time of random walk and a Poisson process of random loops. In this lecture I will show how to “get rid” of the loops and end up with a representation for self-interacting walk as an almost Gaussian integral. This lecture will use the algebra of differential forms, but I will make it self-contained by reviewing what we need to know about differential forms.