

# A central limiting theorem for memory walks

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## **Abstract.**

The problem of self-avoiding walks has been an interesting and fruitful research field in the last decades. One possibility to understand this problem is to analyze walks with a given memory, that are random walks that are restricted not to self-intersect within a prescribed number of steps. I want to present an approach to evaluate walks with a given memory and by investigating in detail memory-2 walks, that is, random walks without direct reversals. In particular, I shall describe how to obtain a CLT for the end-to-end displacement from the eigenvalue expansion of the transfer matrix.

Joint work with Remco van der Hofstad.