

Title: Analysis of Systematic Scan Metropolis Algorithms Using Iwahori-Hecke Algebra Techniques

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Abstract:

We give the first analysis of a systematic scan version of the Metropolis algorithm. Our examples include generating random elements of a Coxeter group with probability determined by the length function. The analysis is based on interpreting Metropolis walks in terms of the multiplication in the Iwahori-Hecke algebra.