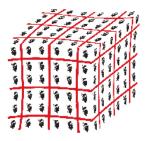
## Lattice2010



Contribution ID: 78 Type: not specified

## A worm-inspired algorithm for the simulation of Abelian gauge theories

Thursday, 17 June 2010 17:00 (20 minutes)

We present an algorithm in which the all-order strong coupling expansion of the Abelian U(1) gauge theory with Wilson plaquette action is sampled. In addition to the vacuum closed surface graphs of the partition function we propose to also allow for a class of defects (boundaries) related to Wilson loops in the ensemble. The efficiency of our scheme in estimating various observables is compared to a standard Metropolis algorithm.

## Please, insert your presentation type (talk, poster)

talk

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Presenter: KORZEC, Tomasz (HU Berlin)

**Session Classification:** Parallel 42: Algorithms and machines

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