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## Affordable low mode averaging

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We present a new take on low-mode averaging, where the dimension of the low-mode subspace is multiplied by exploiting local coherence of low modes. The fraction of the quark propagator captured by this subspace can easily be volume averaged or sampled excessively and reaches gauge variance with lower computational cost than the traditional methods. The remainder piece can be sampled stochastically by solving the Dirac equation to low precision without compromising the correctness of the solution.

## **Topical** area

Algorithms and Artificial Intelligence

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