

Suggested literature

Continuous time MC and Worm algorithm

1. N.V. Prokof'ev , B.V. Svistunov, and I.S. Tupitsyn, “Exact, Complete, and Universal Continuous-Time Worldline Monte Carlo Approach to the Statistics of Discrete Quantum Systems”, Zh. Eksp. Teor. Fiz. **114**, 570 [Sov. Phys. JETP **87**, 310] (1998); *ibid* “Worm Algorithm in the Quantum Monte Carlo simulations”, Phys. Lett. A **238**, 253 (1998).
2. N.V. Prokof'ev and B.V. Svistunov, “Worm Algorithms for Classical Statistical Models”, Phys. Rev. Lett. **87**, 160601 (2001).
3. M. Boninsegni, N. Prokof'ev, and B. Svistunov, “Worm Algorithm for Continuous-Space Path Integral Monte Carlo Simulations” Phys. Rev. Lett., **96**, 070601 (2006); *ibid* “Worm Algorithm and Diagrammatic Monte Carlo: A New Approach to Continuous-Space Path Integral Monte Carlo Simulations”, Phys. Rev. E **74**, 036701 (2006).

Diagrammatic MC

1. A.S. Mishchenko, N.V. Prokof'ev , A. Sakamoto, and B.V. Svistunov, “Diagrammatic Quantum Monte Carlo Study of the Fröhlich polaron”, Phys. Rev. B **62**, 6317 (2000).

Bold Diagrammatic MC

1. N.V. Prokof'ev and B.V. Svistunov, “Bold Diagrammatic Monte Carlo: When Sign Problem is Welcome”, Phys. Rev Lett. **99**, 250201 (2007).
2. N.V. Prokof'ev and B.V. Svistunov, “ Bold diagrammatic Monte Carlo: A generic sign-problem tolerant technique for polaron models and possibly interacting many-body problems”, Phys. Rev. B **77**, 125101 (2008).
3. K. Van Houcke, E. Kozik, N. Prokof'ev, and B. Svistunov, “Diagrammatic Monte Carlo”, Computer Simulation Studies in Condensed Matter Physics XXI, Eds. D.P. Landau, S.P. Lewis, and H.B. Schuttler, Springer Verlag, Heidelberg, Berlin (2008) [arXiv:0802.2923]; E. Kozik, K. Van Houcke, E. Gull, L. Pollet, N. Prokof'ev, B. Svistunov, and M. Troyer, “Diagrammatic Monte Carlo for correlated fermions”, EPL **90**, 10004 (2010).
4. N.V. Prokof'ev, and B.V. Svistunov, “From the Popov-Fedotov case to universal fermionization”, Phys. Rev. B **84**, 073102 (2011).

Brief review of Worm Algorithm and Diag.MC

1. N. Prokof'ev and B. Svistunov, “Worm Algorithm for Problems of Quantum and Classical Statistics,” Chapter in “Understanding Quantum Phase Transitions,” edited by Lincoln D. Carr, Taylor & Francis, Boca Raton (2010).