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Complex Langevin: Boundary Terms at Poles

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The complex Langevin method is a general method to treat systems with complex action, such as QCD at finite density. The formal justification relies on the absence of certain boundary terms, both at infinity and at the unavoidable poles of the drift force. In this talk I focus on the boundary terms at poles for simple models, which so far have not been discussed in detail. The main result is that those boundary terms arise after running the Langevin process for a finite time and vanish again as the Langevin time goes to infinity. This is in contrast to the boundary terms at infinity, which can be found to occur in the long time limit (cf the talk by D\'enes Sexty).

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