

Propagator of the $SU(2)$ gauge boson on a 3-dimensional lattice in the Landau gauge.

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Infrared behavior of the gauge-boson propagator is studied in the 3-dimensional $SU(2)$ gauge theory on a lattice in the Landau gauge. It is demonstrated that, at small values of the momentum, the propagator changes significantly when Gribov copies are properly taken into account. This effect can be seen due to a new efficient algorithm of gauge fixing. The finite-volume effects are also studied and the infinite-volume limit is investigated.