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Influence of Finite Chemical Potential on Critical Boson Mass in QED₂

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Abstract: Using the coupled Dyson-Schwinger equation for the fermion propagator at finite chemical potential μ , we investigate the fermion chiral condensate when the gauge boson mass is nonzero in QED₃. We show that the chiral symmetry restores when the boson mass is large enough, and the critical boson mass depends little on μ .

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