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Fermion-Boson Vertex at Finite Chemical Potential

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Abstract: Based on the Ward-Takahashi identity at finite chemical potential and Lorentz structure analysis, we generalize the Ball-Chiu vertex to the case of nonzero chemical potential and obtain the general form of the fermion-boson vertex in QED at finite chemical potential.

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Key words: Ward-Takahashi identity, Ball-Chiu vertex, finite chemical potential

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