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Title: Discrete spectrum of delta' interaction supported by non-closed manifolds

Abstract: In this talk we present a rigorous definition of delta' interaction supported by non-closed manifolds. We show that for the weak coupling the discrete spectrum disappears. This is surprising and previously unknown behavior for delta' interaction because the case of the attractive delta' interaction supported by a closed manifold always has at least one negative eigenvalue. For the two-dimensional case, we give a sufficient condition for the absence and existence of the discrete spectrum. The sufficient condition is dependent on the coupling constant and the curvature of the curve supporting the interaction.