



量子物理学・ナノサイエンス第 267 回セミナー

Lattice field theory with torsion

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概要

Inspired by the duality between gravity and defects in crystals, we study lattice field theory with torsion. The torsion is realized by a line defect of a lattice, namely a dislocation. As the first application, we perform the numerical computation for vector and axial currents induced by a screw dislocation. This current generation is called the chiral torsional effect. We also derive the analytical formula for the chiral torsional effect in the continuum limit.

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