NAMBU-JONA-LASINIO MODEL AND DECONSTRUCTED DIMENSION

Nahomi Kan, Koichiro Kobayashi and Kiyoshi Shiraishi

Abstract

The Nambu-Jona-Lasinio model with the mass matrix which appears in a deconstruction model is investigated. We consider two models. In Model A, a mass matrix belonging to a type used in dimensional deconstruction is introduced. In Model B, the four-fermion interaction has a structure of the matrix of the type of dimensional deconstruction. In these models, we find that generation of a dynamical fermion mass spectrum occurs in a strong coupling case.