

Abstract

We study four dimensional $N = 2SO/SP$ supersymmetric gauge theory on $R^3 \times S^1$ deformed by a tree level superpotential. We will show that the exact superpotential can be obtained by making use of the Lax matrix of the corresponding integrable model which is the periodic Toda lattice. The connection between vacua of $SO(2N)$ and $SO(2kN - 2k + 2)$ can also be seen in this framework. Similar analysis can also be applied for $SO(2N + 1)$ and $SP(2N)$.