Vacuum structure in 3-dimensional supersymmetric gauge theories.
We review the vacuum dynamics in 3d supersymmetric Yang-Mills-Chern-Simons theories with and without extra matter multiplets. By analyzing the effective Born-Oppenheimer Hamiltonian in a small spatial box, we calculate the number of vacuum states (Witten index) and examine their structure for these theories. The results are identical to those obtained by other methods.