One-dimensional subsectors in supersymmetric gauge theories Luigi Guerrini (Università di Parma)

Abstract

The study of supersymmetric QFTs has led to many exact results, which guide our understanding of QFT, including the strong-coupling regime. Supersymmetric localization plays a central role, allowing us to access BPS observables for any values of the coupling constants. Enlarging the set of computable observables and determining their expectation values is an interesting non-trivial problem. We address this issue in supersymmetric gauge theories in 3d. We focus on specific local and non-local operators. They have interesting physical applications in the context of bootstrap, conformal defects, and dualities. We apply localization and related methods based on non-standard supercharges.