ID de Contribution: **66** Type: **Non spécifié**

Exact WKB methods in SU(2) Nf = 1

The exact WKB method is at first developed for studying schr\"{o}dinger equation and its higher order generalizations. It has been further proved to be connected to the $4d$ $\mathcal{N}=2$ supersymmetric field theory, especially to the BPS states. In this talk, I will focus on a specific example of the Schr\"{o}dinger equation corresponding to the four dimensional $SU(2)$ $\mathcal{N}=2$ SQCD theory with one flavour. I will introduce the exact quantization condition which is important for generalized bound state energy problem. It can be expressed in terms of Voros symbols, or quantum periods. I will also show the four different ways we used to calculate the quantum periods: Borel summation of the WKB series, direct computation of Wronskians of exponentially decaying solutions, the TBA equations of Gaiotto-Moore-Neitzke/Gaiotto, and instanton counting.

Type of contribution

Contributed Talk or Poster

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