

Abstract: I will show to compute the exact density of states, at all energy scales, and 2-point functions of the  $N=2$  super-symmetric SYK model in the large  $N$  double-scaled limit, by using combinatorial tools which go under the name of chord diagrams. In particular we show how SUSY is realized on the (highly degenerate) Hilbert space of chords. Algebraically, the model is controlled by the  $q$ -deformed group  $SL_q(2|1)$ , which should be the symmetry group of the full dual of the SUSY SYK model.