

## Abstract

Sectors of  $N=4, d=4$   $U(N)$  super-Yang-Mills theories which preserve  $1/2$  of the 32 supercharges has recently attracted attentions of string theorists. It has been proposed that each of these  $1/2$  BPS sectors, which closed onto themselves, can be described by a simpler (gauge) theory with 16 supercharges. One such example corresponds to the LLM geometries. In this group meeting session we will discuss the recent paper by Lin-Maldacena where they have extended the LLM work as well as consider a new  $1/2$  BPS sector with  $SU(4-2)$  SUSY.