

**Institut Henri Poincaré**  
11 rue Pierre et Marie Curie, 75231 Paris cedex 05  
**String Theory in Greater Paris**

**Rencontres Théoriciennes**  
**“Supergravité, théorie des cordes et théorie M”**

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**Effect of the deformation operator in the D1D5 CFT**

*The D1D5 CFT is a holographic dual of a near-extremal black hole in string theory. The process of black hole formation in the bulk is dual to a process of thermalization in the CFT. It is desirable to have a detailed understanding of this thermalization process. The interaction in the CFT involves a twist operator which joins together different copies of a free CFT. I will describe recent results which derive the effect of this interaction when it links together CFT copies with winding numbers  $M$  and  $N$  to produce a copy with winding  $M+N$ , populated with excitations of a particular form. These results are a step towards understanding the thermalization process in the D1D5 CFT.*

**Institut Henri Poincaré, salle 314, 3<sup>ème</sup> étage**

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