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**String Theory in Greater Paris**

**Rencontres Théoriciennes**

**"Supergravité, théorie des cordes et théorie M"**

***Jeudi 27 Octobre 2016, 10:00***

# Malcolm Perry

***DAMTP***

## The black hole information paradox revisited

*I briefly review the black hole information paradox. If quantum theory really works in black hole physics, then there must be something wrong with the traditional picture of black hole evaporation. In quantum electrodynamics, it is shown that there are an infinite number of conserved charges and that these charges also exist on black hole horizons. These kind of soft charges also have gravitational analogs. This phenomenon shows that ones traditional thinking about the black hole uniqueness theorems needs revision. Its implications for the information paradox are reviewed and then some outstanding issues illustrated.*

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