

**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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**Shape dependence of holographic Rényi entropy in general dimensions**

*Rényi entropies, and entanglement entropy in particular, are popular measures of entanglement in quantum theories. We present a holographic method for computing the response of Rényi entropies in conformal field theories to small shape deformations around a flat (or spherical) entangling surface. Our strategy is based on general properties of conformal field theories in the presence of defects, and can be applied to the study of other extended operators in holographic CFTs. We present numerical and analytical results valid for the holographic duals of Einstein and Gauss-Bonnet gravity in various dimensions.*

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

Retrouvez les activités de la communauté parisienne de théorie des cordes sur  
<http://string.lpthe.jussieu.fr>  
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<http://string.lpthe.jussieu.fr/semparis>

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