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String Theory in Greater Paris

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

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Extremal black holes with wiggles

Symmetries are crucial in physics. Here I will develop the concept of symplectic symmetry for Einstein gravity, which is an extension of the concept of asymptotic symmetries. I will then show that the throat of the extremal Kerr black hole admits symplectic symmetries, which leads to an infinite number of conserved charges which form a Virasoro algebra in 4 dimensions and a novel generalized Virasoro algebra in higher dimensions. I will build explicitly the geometries that carry these charges, the so-called "descendants" of the extremal black hole, in the near-horizon region.

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Retrouvez les activités de la communauté parisienne de théorie des cordes sur
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