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## **Spinning up the black hole –string correspondence**

*Wednesday 5 February 2025 10:15 (1 hour)*

The correspondence principle between strings and black holes is a general framework for matching black holes and massive states of fundamental strings at a point where their physical properties (such as mass, entropy and temperature) smoothly agree with each other. As such it offers a statistical interpretation of black hole entropy. I will discuss the extension of this correspondence principle to rotating black holes and strings. Several puzzles arise when attempting to include rotation, but they can be resolved by adding novel ingredients to the correspondence: dynamical features, non-stationary configurations and shapes of strings and black holes. As a test of this proposal I will compare the sizes of rotating strings and black holes for small, typical, and large values of the angular momentum.

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