

APCTP SEMINAR

On circular strings in Kerr-AdS₅ black holes

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September 23rd (Thu.) 16:00 (KST)

Online via **ZOOM**

Following the AdS/CFT correspondence, a 5d Kerr-AdS black hole is dual to a thermal ensemble of $N=4$ SYM on 4d cylinder $R \times S^3$.

In this talk, I'll discuss closed circular strings in the Kerr-AdS₅ background.

I'll present exact solutions for the circular strings in the black hole background.

I'll also compute the string energy reducing the string Nambu-Goto action to the mechanical Lagrangian and applying the Bohr-Sommerfeld analysis.

I'll derive the relation for the energy for the case of a small value of the rotational parameters. In the case of vanishing rotation, this relation for the energy comes to that one obtained earlier for the Schwarzschild-AdS black hole.

■ ZOOM Webinar

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