

R^4 corrections to holographic Schwinger effect

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We consider R^4 corrections to the holographic Schwinger effect in an AdS black hole background and a confining D3-brane background. The potential between a test particle pair are performed for both backgrounds. We find there is no potential barrier in the critical electric field, which means that the system becomes catastrophically unstable. It is shown that for both backgrounds, increasing the inverse 't Hooft coupling parameter $1/\lambda$ enhances the Schwinger effect. We also discuss the possible relation between the Schwinger effect and the viscosity-entropy ratio η/s in strong coupling.

Type

Parallel talk

Sessions (parallel only)

QCD

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