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## Study of corrections on the holographic zero sound

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### Abstract

In a holographic compressible quantum matter, we calculate the sound mode using holography. For this purpose, we consider a structure of  $D_3$ - $D_7$  branes that corresponds to this holographic compressible quantum matter. In this system, the sound mode is called the zero sound mode. In Gauss-Bonnet gravitational field geometry, we calculate the corrections entered at zero sound and show that the attenuation rate decreases.

**Keywords:** AdS/CFT correspondence, holography, branes, zero sound, Gauss, Bonnet

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For full article, refer to the Persian section