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Lifshitz solutions and the effects of high-order operators¹ XIN-WEN WANG, Baylor University, JIE YANG, Lanzhou University, MIAO TIAN, Lanzhou Jiaotong University, ANZHONG WANG, YANBIN DENG, Baylor University, CASPER TEAM — e study the effects of high-order operators on the nonrelativistic Lifshitz holography in the framework of the Hořava-Lifshitz (HL) theory of gravity, which naturally contains high-order operators order for the theory to be power-counting renormalizable, and provides an ideal place for such studies. Inparticular, we show that the Lifshitz spacetime is still a solution of the full theory of the HL gravity. Theeffects of the high-order operators on the spacetime itself is simply to shift the Lifshitz dynamical exponent.

¹Lifshitz solutions and high-order operators

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