



Mathematics > Number Theory

The first moment of Salie sums

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The main objective of this article is to study the asymptotic behavior of Salie sums over arithmetic progressions. We deduce from our asymptotic formula that Salie sums possess a bias of being positive. The method we use is based on Kuznetsov formula for modular forms of half integral weight. Moreover, in order to develop an explicit formula, we are led to determine an explicit orthogonal basis of the space of modular forms of half integral weight.

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