



Mathematics > Number Theory

# An identity on the $2m$ -th power mean value of the generalized Gauss sums

Feng Liu, Quan-Hui Yang

(Submitted on 13 Jul 2011)

In this paper, using combinatorial and analytic methods, we prove an exact calculating formula on the  $2m$ -th power mean value of the generalized quadratic Gauss sums for  $m \geq 2$ . This solves a conjecture of He and Zhang [*On the  $2k$ -th power mean value of the generalized quadratic Gauss sums*, Bull. Korean Math. Soc. 48 (2011), No.1, 9-15].

Comments: 12pages  
 Subjects: **Number Theory (math.NT)**  
 MSC classes: Primary 11M20  
 Cite as: **arXiv:1107.2470 [math.NT]**  
 (or **arXiv:1107.2470v1 [math.NT]** for this version)

## Submission history

From: Quan-Hui Yang [[view email](#)]  
 [v1] Wed, 13 Jul 2011 06:38:06 GMT (5kb)

*[Which authors of this paper are endorsers?](#)*

## Download:

- [PDF](#)
- [PostScript](#)
- [Other formats](#)

Current browse context:

math.NT

[< prev](#) | [next >](#)

[new](#) | [recent](#) | [1107](#)

Change to browse by:

[math](#)

## References & Citations

- [NASA ADS](#)

Bookmark([what is this?](#))

