arXiv.org > math > arXiv:1011.0323

## Zeta-functions of weight lattices of compact semisimple connected Lie groups

Yasushi Komori, Kohji Matsumoto, Hirofumi Tsumura

(Submitted on 1 Nov 2010)

We define zeta-functions of weight lattices of compact semisimple connected Lie groups. If the group is simply-connected, these zetafunctions coincide with ordinary zeta-functions of root systems of associated Lie algebras. In this paper we consider the general connected (but not necessarily simply-connected) case, prove the explicit form of Witten's volume formulas for these zeta-functions, and further prove functional relations among them which include their volume formulas.

Comments:25 pagesSubjects:Number Theory (math.NT)MSC classes:Primary 11M41, Secondary 17B20, 40B05Cite as:arXiv:1011.0323v1 [math.NT]

## **Submission history**

From: Hirofumi Tsumura [view email] [v1] Mon, 1 Nov 2010 14:03:56 GMT (32kb)

Which authors of this paper are endorsers?

Link back to: arXiv, form interface, contact.

(Help | Advanced search)

All papers

Go!

## Download:

- PDF
- PostScript
- Other formats

Current browse context: math.NT < prev | next > new | recent | 1011

Change to browse by:

math

**References & Citations** 

• NASA ADS

Bookmark(what is this?)