Classification of irreducible quasifinite modules over map Virasoro algebras

Alistair Savage

(Submitted on 21 Jul 2011 (v1), last revised 13 Apr 2012 (this version, v2))

We give a complete classification of the irreducible quasifinite modules for algebras of the form Vir \otimes A, where Vir is the Virasoro algebra and A is a Noetherian commutative associative unital algebra over the complex numbers. It is shown that all such modules are tensor products of generalized evaluation modules. We also give an explicit sufficient condition for a Verma module of Vir \otimes A to be reducible. In the case that A is an infinite-dimensional integral domain, this condition is also necessary.

Comments:	25 pages. v2: Minor changes, published version
Subjects:	**Representation Theory (math.RT)**; Mathematical Physics (math-ph); Rings and Algebras (math.RA)
MSC classes:	17B68, 17B10
Journal reference:	Transform. Groups 17 (2012), no. 2, pp. 547--570
DOI:	10.1007/s00031-012-9182-9
Cite as:	**arXiv:1107.4365 [math.RT]**
	(or **arXiv:1107.4365v2 [math.RT]** for this version)

Submission history

From: Alistair Savage [view email]
[v1] Thu, 21 Jul 2011 20:00:03 GMT (20kb)
[v2] Fri, 13 Apr 2012 14:36:29 GMT (28kb)

Which authors of this paper are endorsers?