



Integral Bases for the Universal Enveloping Algebras of Map Algebras

[Samuel H. Chamberlin](#)

(Submitted on 6 Jul 2011 ([v1](#)), last revised 2 Nov 2011 (this version, [v2](#)))

Given a finite-dimensional, complex simple Lie algebra we exhibit an integral form for the universal enveloping algebra of its map algebra, and an explicit integral basis for this integral form. We also produce explicit commutation formulas in the universal enveloping algebras of the map algebras of sl_2 that allow us to write certain elements in Poincare-Birkhoff-Witt order.

Comments: 20 pages
 Subjects: **Representation Theory (math.RT)**
 MSC classes: 17B
 Cite as: [arXiv:1107.1249](#) [math.RT]
 (or [arXiv:1107.1249v2](#) [math.RT] for this version)

Submission history

From: Samuel Chamberlin [[view email](#)]
[\[v1\]](#) Wed, 6 Jul 2011 20:26:57 GMT (24kb)
[\[v2\]](#) Wed, 2 Nov 2011 18:41:24 GMT (14kb)

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

Link back to: [arXiv](#), [form interface](#), [contact](#).

Download:

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

Current browse context:

math.RT

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

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

Change to browse by:

[math](#)

References & Citations

- [NASA ADS](#)

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

