Here is a partial list of known significant errors in my published papers, with references to corrections.

1 Significant errors


It was pointed out by P. Sabatino and F. Viviani that the proof of Theorem 3.10 contains a gap. Namely, the argument with the Hessian at the end of the proof of Proposition 3.16 is not, by itself, sufficient to conclude that $Z \setminus 0$ is smooth. However, a different proof of Theorem 3.10 has been given in:


See also the correction on p.11 of arXiv:0003009v2.


It was discovered by P. Lee that the proof of Theorem 2.3 is incorrect. Namely, the proof rests on Proposition 5.1, which is false. As a result, the proof of Theorem 8.5 contains a gap, as it rests on the incorrectly proved Theorem 2.3. Similarly, the proof of Proposition 6.1 contains a gap, as it rests on the wrong Proposition 5.1. In arXiv:0509661v6, these errors are corrected: Propositions 5.1 and 6.1 are deleted, and Theorems 2.3 and 8.5 are stated as conjectures (Namely, Conjectures 2.3 and 6.5, respectively).

Luckily, Conjectures 2.3 and 6.5 were proved by P. Lee in


which effectively corrects the errors in our paper. In fact, he also proved Conjectures 2.4 and 6.6 of arXiv:0509661v6.


I recently discovered that the proof of Lemma 9.7 contains a gap, and hence the proofs of the results on faithfulness of the lifting in Subsection 9.3 are incomplete. Namely, the proof of Lemma 9.7 (used in the proof of Theorem 9.6) says that by Nakayama’s lemma, it suffices to check the finiteness of a certain morphism $\phi$ of schemes over $W(k)$ modulo the maximal
ideal \(I\) (i.e., over \(k\)). But it is, in fact, not clear how this follows from Nakayama’s lemma. Namely, finiteness over \(k\) does imply finiteness over \(W(k)/I^N\) for any \(N \geq 1\), but this is not sufficient to conclude finiteness over \(W(k)\). In fact, the reductivity of the group of twists must be used in the proof.

This is corrected in


See also a correction in math.QA/0203060v11, end of Subsection 9.3.

This also fills the gap in the proof of Theorem 6.1 in


2 Less significant errors


A few mistakes concerning certain KZ twists, which were overlooked in the published version (as found by M. Balagovic), are corrected in the web version, math.QA/0111005v6. The corrections involve Proposition 6.6 and Theorems 8.15(i) and 8.16. Also the statement of Conjecture 8.12 is corrected to include possible changes of sign of values of \(c\).

We note that a similar error occurs in arXiv:math/0509252, Proposition 5.14 by R. Rouquier (and the published version of that paper).


As was noticed by V. Toledano Laredo, the proof of Theorem 0.1 given in Subsection 1.1 (in particular, Propositions 0.2 and 0.3) apply only to the case when the Casimir element \(t \in S^2g\) is nondegenerate (i.e., defines a linear isomorphism \(g \rightarrow g^*\)). The formulations of Propositions 0.2 and 0.3 are missing that condition. However, the second proof of this theorem, given in 1.2, applies in general.


Adrien Brochier has discovered that the proof of Proposition 9.7 contains an error, namely the morphism \(\chi\) is defined incorrectly. A corrected proof with the right definition of \(\chi\) appears in

See also the correction in arXiv:q-alg/9506005v5 after Proposition 9.7.

Also, Theorem 6.2 is not quite correctly formulated. Instead of the category $\mathcal{M}_a$ of $a$-modules considered in this theorem, one should consider the category $\tilde{\mathcal{M}}_a$ of deformation $a$-modules. The functor $F$ in the theorem (from $\mathcal{M}_a$ to the category $\mathcal{R}$ of representations of $U_h(a)$) naturally extends to $\tilde{\mathcal{M}}_a$. The correct formulation of Theorem 6.2 says that $F$ is an equivalence of $\tilde{\mathcal{M}}_a$ onto $\mathcal{R}$ (the proof of this is obvious from the results of [6]). In this form, Theorem 6.2 of [6] (for $a$ being the double of a finite dimensional Lie bialgebra) is a special case of Theorem 4.1 in


Proposition 3.13 and Example 3.14 were incorrect in the published version, and are corrected in arXiv:1401.5042v2.