



# A remarkable contraction of semisimple Lie algebras

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Recently, E. Feigin introduced a very interesting contraction  $\mathfrak{q}$  of a semisimple Lie algebra  $\mathfrak{g}$  (see [arXiv:1007.0646](#) and [arXiv:1101.1898](#)). We prove that these non-reductive Lie algebras retain good invariant-theoretic properties of  $\mathfrak{g}$ . For instance, the algebras of invariants of both adjoint and coadjoint representations of  $\mathfrak{q}$  are free, and also the enveloping algebra of  $\mathfrak{q}$  is a free module over its centre.

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