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Title:	Lie dimension subrings
Authors:	Bartholdi, L. (/jspui/browse?type=author&value=Bartholdi%2C+L.) Passi, I.B.S. (/jspui/browse?type=author&value=Passi%2C+I.B.S.)
Keywords:	Lie rings dimension problem simplicial objects enveloping algebras
Issue Date:	2015
Publisher:	World Scientific Publishing Co. Pte Ltd
Citation:	International Journal of Algebra and Computation, 25(8)
Abstract:	We compare, for $L$ a Lie ring over the integers, its lower central series $(\gamma_n(L))_{n \geq 1}$ and its dimension series defined by $\delta_n(L) := L \cap \omega_n(L)$ in the universal enveloping algebra of $L$ . We show that $\gamma_n(L) = \delta_n(L)$ for all $n \leq 3$ , but give an example showing that they may differ if $n=4$ . We introduce simplicial methods to describe these results, and to serve as a possible tool for further study of the dimension series.
URI:	<a href="https://www.worldscientific.com/doi/10.1142/S0218196715500423">https://www.worldscientific.com/doi/10.1142/S0218196715500423</a> ( <a href="https://www.worldscientific.com/doi/10.1142/S0218196715500423">https://www.worldscientific.com/doi/10.1142/S0218196715500423</a> ) <a href="http://hdl.handle.net/123456789/2731">http://hdl.handle.net/123456789/2731</a> ( <a href="http://hdl.handle.net/123456789/2731">http://hdl.handle.net/123456789/2731</a> )
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