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Title:	On palindromic width of certain extensions and quotients of free nilpotent groups
Authors:	Gongopadhyay, Krishnendu (/jspui/browse?type=author&value=Gongopadhyay%2C+Krishnendu)
Keywords:	Free nilpotent groups Palindromic width
Issue Date:	2014
Publisher:	World Scientific
Citation:	International Journal of Algebra and Computation,24(5),pp.553-567.
Abstract:	In [Bardakov and Gongopadhyay, Palindromic width of free nilpotent groups, J. Algebra 402 (2014) 379-391] the authors provided a bound for the palindromic widths of free abelian-by-nilpotent group $AN_n$ of rank $n$ and free nilpotent group $N_{n,r}$ of rank $n$ and step $r$ . In the present paper, we study palindromic widths of groups $\widetilde{AN}_n$ and $\widetilde{N}_{n,r}$ . We denote by $\widetilde{G}_n = G_n / \langle x_{12}, \dots, x_{n2} \rangle$ the quotient of the group $G_n = \langle x_1, \dots, x_n \rangle$ , which is free in some variety by the normal subgroup generated by $x_{12}, \dots, x_{n2}$ . We prove that the palindromic width of the quotient $\widetilde{AN}_n$ is finite and bounded by $3n$ . We also prove that the palindromic width of the quotient $\widetilde{N}_{n,2}$ is precisely $2(n-1)$ . As a corollary to this result, we improve the lower bound of the palindromic width of $N_{n,r}$ . We also improve the bound of the palindromic width of a free metabelian group. We prove that the palindromic width of a free metabelian group of rank $n$ is at most $4n-1$ .
Description:	Only IISERM authors are available in the record.
URI:	<a href="https://www.worldscientific.com/doi/abs/10.1142/S0218196714500246">https://www.worldscientific.com/doi/abs/10.1142/S0218196714500246</a> ( <a href="https://www.worldscientific.com/doi/abs/10.1142/S0218196714500246">https://www.worldscientific.com/doi/abs/10.1142/S0218196714500246</a> ) <a href="http://hdl.handle.net/123456789/2881">http://hdl.handle.net/123456789/2881</a> ( <a href="http://hdl.handle.net/123456789/2881">http://hdl.handle.net/123456789/2881</a> )
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