cases	doc_1		doc_2		decision	id
	authors	• Ãgota Figula	authors	• Ãgota Figula	NOT DUPLICATES	1127
	title	Three-dimensional topological loops with solvable multiplication groups	title	The multiplication groups of 2-dimensional topological loops		
	publication_date	2015-07-04 19:07:39+00:00	publication_date	2015-07-01 08:39:40+00:00		
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	journal	Communications in Algebra 42 (2014), pp. 444-468	journal	Journal of Group Theory 12, (2009), 419-429		
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	doi		doi			
	urls	• http://arxiv.org/pdf/1507.01134v1 • http://arxiv.org/abs/1507.01134v1 • http://arxiv.org/pdf/1507.01134v1	urls	• http://arxiv.org/pdf/1507.00148v1 • http://arxiv.org/abs/1507.00148v1 • http://arxiv.org/pdf/1507.00148v1		
	id	id3956071868011939834	id	id-1222839842044185544		
	abstract	We prove that each \$3\$-dimensional connected topological loop \$L\$ having a solvable Lie group of dimension \$\le 5\$ as the multiplication group of \$L\$ is centrally nilpotent of class \$2\$. Moreover, we classify the solvable non-nilpotent Lie groups \$G\$ which are multiplication groups for \$3\$-dimensional simply connected topological loops \$L\$ and \$\hbox{dim} \ G \le 5\$. These groups are direct products of proper connected Lie groups and have dimension \$5\$. We find also the inner mapping groups of \$L\$.	abstract	We prove that if the multiplication group \$Mult(L)\$ of a connected \$2\$-dimensional topological loop is a Lie group, then \$Mult(L)\$ is an elementary filiform nilpotent Lie group of dimension at least \$4\$. Moreover, we describe loops having elementary filiform Lie groups \$\mathbb F\$ as the group topologically generated by their left translations and obtain a complete classification for these loops \$L\$ if \$\hbox{dim} \ \mathbb F=3\$. In this case necessary and sufficient conditions for \$L\$ are given that \$Mult(L)\$ is an elementary filiform Lie group for a given allowed dimension.		
	versions		versions			