

| cases | doc_1            |   | doc_2            |  | decision          | id   |
|-------|------------------|---|------------------|--|-------------------|------|
|       | authors          | <ul style="list-style-type: none"><li>• Āgota Figula</li></ul>  | authors          | <ul style="list-style-type: none"><li>• Āgota Figula</li></ul>   | NOT<br>DUPLICATES | 1126 |
|       | title            | Three-dimensional loops as sections in a four-dimensional solvable Lie group  | title            | Three-dimensional topological loops with solvable multiplication groups  |                   |      |
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|       | urls             | <ul style="list-style-type: none"><li>• <a href="http://arxiv.org/pdf/1507.00631v1">http://arxiv.org/pdf/1507.00631v1</a></li><li>• <a href="http://arxiv.org/abs/1507.00631v1">http://arxiv.org/abs/1507.00631v1</a></li><li>• <a href="http://arxiv.org/pdf/1507.00631v1">http://arxiv.org/pdf/1507.00631v1</a></li></ul>                                 | urls             | <ul style="list-style-type: none"><li>• <a href="http://arxiv.org/pdf/1507.01134v1">http://arxiv.org/pdf/1507.01134v1</a></li><li>• <a href="http://arxiv.org/abs/1507.01134v1">http://arxiv.org/abs/1507.01134v1</a></li><li>• <a href="http://arxiv.org/pdf/1507.01134v1">http://arxiv.org/pdf/1507.01134v1</a></li></ul>  |                   |      |
|       | id               | id-3350130083126758621  | id               | id3956071868011939834  |                   |      |
|       | abstract         | We classify all three-dimensional connected topological loops such that the group topologically generated by their left translations is the four-dimensional connected Lie group $SG$ which has trivial center and precisely two one-dimensional normal subgroups. We show that $SG$ is not the multiplication group of connected topological proper loops. | abstract         | We prove that each $3$ -dimensional connected topological loop $SL$ having a solvable Lie group of dimension $\leq 5$ as the multiplication group of $SL$ is centrally nilpotent of class $2$ . Moreover, we classify the solvable non-nilpotent Lie groups $SG$ which are multiplication groups for $3$ -dimensional simply connected topological loops $SL$ and $\dim G \leq 5$ . These groups are direct products of proper connected Lie groups and have dimension $5$ . We find also the inner mapping groups of $SL$ . |                   |      |
|       | versions         |   | versions         |  |                   |      |