



Library Indian Institute of Science Education and Research Mohali



DSpace@IISERMohali (/jspui/)
/ Publications of IISER Mohali (/jspui/handle/123456789/4)
/ Research Articles (/jspui/handle/123456789/9)

Please use this identifier to cite or link to this item: <http://hdl.handle.net/123456789/5243>

Title:	Distal Actions of Automorphisms of Lie Groups G on $\text{Sub}G$
Authors:	Kumar Yadav, Alok (/jspui/browse?type=author&value=Kumar+Yadav%2C+Alok)
Keywords:	Distal actions Lie Groups
Issue Date:	2022
Publisher:	Cambridge University Press
Citation:	Mathematical Proceedings the Cambridge Philosophical Society, 173(2), 457-478.
Abstract:	For a locally compact metrisable group G , we study the action of $\text{Aut}(G)$ on $\text{Sub}G$, the set of closed subgroups of G endowed with the Chabauty topology. Given an automorphism T of G , we relate the distality of the T -action on $\text{Sub}G$ with that of the T -action on G under a certain condition. If G is a connected Lie group, we characterise the distality of the T -action on $\text{Sub}G$ in terms of compactness of the closed subgroup generated by T in $\text{Aut}(G)$ under certain conditions on the center of G or on T as follows: G has no compact central subgroup of positive dimension or T is unipotent or T is contained in the connected component of the identity in $\text{Aut}(G)$. Moreover, we also show that a connected Lie group G acts distally on $\text{Sub}G$ if and only if G is either compact or it is isomorphic to a direct product of a compact group and a vector group. All the results on the Lie groups mentioned above hold for the action on Sub_aG , a subset of $\text{Sub}G$ consisting of closed abelian subgroups of G .
Description:	Only IISER Mohali authors are available in the record.
URI:	https://doi.org/10.1017/S0305004121000694 (https://doi.org/10.1017/S0305004121000694) http://hdl.handle.net/123456789/5243 (http://hdl.handle.net/123456789/5243)
Appears in Collections:	Research Articles (/jspui/handle/123456789/9)

Files in This Item:

File	Description	Size	Format
Need To Add...Full Text_PDF. (/jspui/bitstream/123456789/5243/1/Need%20To%20Add%e2%80%a6Full%20Text_PDF.)		15.36 kB	Unknown

[View/Open \(/jspui/handle/123456789/5243/bitstream/123456789/5243/1/Need%20To%20Add%e2%80%a6Full%20Text_PDF.\)](#)

[Show full item record \(/jspui/handle/123456789/5243?mode=full\)](#)

[Statistics \(/jspui/handle/123456789/5243/statistics\)](#)

Items in DSpace are protected by copyright, with all rights reserved, unless otherwise indicated.

