

LESS THAN TWO GENERATORS SUFFICE

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ABSTRACT. In control theory the problem arose if certain Lie groups can be generated as semigroups by two one-parameter subsemigroups. We show in joint work with E. B. Vinberg that actually two one-dimensional compact subgroups suffice. A consequence of our more precise result is that given a non-central element g in a simple Lie group there is an elliptic element h in G such that h and ghg^{-1} generate a dense subsemigroup of G .

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