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## A Characteristic-Index Inequalityfor Closed Embeddings of Locally Compact Groups

The characteristic index of a locally compact connected group G is the nonnegative integer d for which we have a homeomorphism  $G \cong K \times \mathbb{R}^d$  with K maximal compact in G. We prove that the characteristic indices of closed connected subgroups are dominated by those of the ambient groups.

**Keywords**: Lie group, locally compact group, characteristic index, dense embedding, Lie algebra, homology, fibration, spectral sequence.

MSC: 22D05, 22E15, 22E60, 57T15, 55T10.