

Projections of almost connected groups as G -fibrations

Aura Lucina Kantun-Montiel

alkantun@unpa.edu.mx

A G -fibration is the equivariant version of a Hurewicz fibration, that is, an equivariant map with the right lifting property with respect to the G -embeddings $X \times \{0\} \hookrightarrow X \times I$.

A well known result about G -fibrations states that if H is a closed subgroup of a compact Lie group G , then any G -map $p : E \rightarrow G/H$ is a G -fibration. A natural question is whether this result remains valid when working with a non-compact or non-Lie acting group. To answer this, we are going to give generalizations of some classical results that lead us to prove that p is also a G -fibration whenever G is a (not necessarily compact) Lie group or an almost connected metrizable group and H its compact subgroup.