

The topology of a semisimple Lie group is essentially unique

A classical theorem (due to Cartan, van der Waerden and Freudenthal) says that an 'abstract' isomorphism between simple real Lie groups is automatically continuous: the Lie topology is 'rigid'. In my talk I will explain how this rigidity result generalizes to abstract isomorphisms between simple real or complex Lie groups and locally compact groups.