

1) Make the core $C = S^2 \times \mathbb{R}^3$

2) Need C to satisfy: (a) ?? (b) ?? (c) ??

a) cocompact

f) \Rightarrow b) simply connected

e) transverse properties \Rightarrow d) free \Rightarrow c) properly discontinuous action

3) Run Bieri dimension argument

(f)

cubeness \Rightarrow is a Tree of Spaces

1-dim fibers connected \Rightarrow 2D fibers QC (via Guirardel) \Rightarrow OC

connected + QC \Rightarrow guirardel \Rightarrow simply connected