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Richard G Hanlon and **Eduardo Martinez-Pedroza*** (emartinezped@mun.ca), St John's, NL A1C 5S7, Canada. *The tower method and subgroups of non-positively curved groups.*

Towers is a geometric technique from 3-manifold topology introduced by Papakyriakopolous, and brought to combinatorial group theory by Howie. We extend the tower method to equivariant maps and prove the following statement. If \mathcal{C} is a class of locally finite complexes closed under taking full subcomplexes and covers and \mathcal{G} is the class of groups admitting proper and cocompact actions on one-connected complexes in \mathcal{C} , then \mathcal{G} is closed under taking finitely presented subgroups. As a consequence the following classes of groups are closed under taking finitely presented subgroups: groups acting geometrically on regular $CAT(0)$ simplicial complexes of dimension 3, k -systolic groups for $k \geq 6$ (extending a result of D. Wise), and groups acting geometrically on 2-dimensional negatively curved complexes (extending a result of S. Gersten). (Received July 20, 2017)