

COLIMITS OF A-SPACES AND WEAK CORES

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Alexandroff spaces (or A-spaces) are topological spaces in which arbitrary intersections of open sets are open. Every topological space is weak homotopy equivalent to an A-space by a result of McCord. An important class of A-spaces is given by finite spaces. The *core* of a finite space X is a space Y such that there is a quotient map $X \xrightarrow{q} Y$ which is a homotopy equivalence, and where Y is minimal with this property.

In this talk, we will study filtered colimits of A-spaces, and we will prove that although A-spaces do not have cores in general, they do possess *weak cores*: a version in which homotopy equivalences are replaced by weak equivalences.

If time allows, we will also study colimits of CW-complexes which are A-spaces.

Trabajo en conjunto con Jonathan Barmak (Universidad de Buenos Aires)..

Referencias

[1] J.A. Barmak, J.I. Galotto. Directed systems and weak cores of A-spaces. 2026.