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Alex Gonzalez* (agondem@mat.uab.cat). *Homotopy fixed points of p -local finite groups and fixed points of localities.*

Given discrete groups Q, G and an action of Q on G , the homotopy fixed point set of the classifying space BG by the action of Q can easily be described in terms of the group data, basically as a disjoint union of fixed point subgroups of G (which will be quickly described in the talk).

In this talk we consider a similar situation, where G is replaced by a p -local finite group, Q is assumed to be a p -group, and the action is assumed to be via isotypical equivalences. Using only the categorical approach of p -local finite groups, one can deduce that the resulting homotopy fixed point set in this situation is a disjoint union of classifying spaces of p -local finite groups, but it is not clear how this relates to the original data.

I will explain how, combining the above with the language of localities developed by A. Chermak, we can describe homotopy fixed point sets of p -local finite groups by means of the original p -local group data, as a disjoint union of fixed point partial subgroups of the locality associated to the given p -local finite group. (Received August 26, 2013)