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**Fixed points for group actions on non-positively curved spaces**

Abstract : A group is said to have a fixed point property if every suitable action on some kind of space has a global fixed point. Fixed point properties for isometric actions on non-positively curved spaces are known to be important properties for a group, in relation with combinatorial structures or linear representations of the group. Examples of such fixed point properties are Serre's property FA for simplicial actions on trees, and Farb's property  $\mathcal{FA}_k$  for semi-simple actions on  $k$ -dimensional CAT(0) spaces.

In this talk, we consider property  $\mathcal{FB}_k$ , which is a fixed point property for semi-simple actions on finite dimensional Busemann spaces. This property is stronger than property FA and property  $\mathcal{FA}_k$ . We give a sufficient condition for groups to have property  $\mathcal{FB}_k$  when  $k$  is finite. As an application, we show that Richard Thompson's groups, which are famous as infinite finitely presented simple groups, have property  $\mathcal{FB}_k$  for finite  $k$ .