

Geometry, Groups and Dynamics/GEAR Seminar  
(held at the Illinois hub of GEAR )

**12:00 pm, Thursday, April 28, 2016, 243 Altgeld Hall**

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Induced group actions

Abstract: I will discuss the following natural extension problem for group actions: Given a group  $G$ , a subgroup  $H \leq G$ , and an action of  $H$  on a metric space  $S$ , when is it possible to extend it to an action of the whole group  $G$ ? When does such an extension preserve interesting properties of the original action of  $H$ ? I will explain how to formalize this problem and will present a construction of the induced action which behaves well when  $G$  is hyperbolic relative to  $H$  or, more generally,  $H$  is hyperbolically embedded in  $G$ . We will also discuss some applications. This talk is based on my work in progress with C. Abbott and S. Balasubramanya.

Video (unavailable)