
PHILLIP WESOLEK, Université catholique de Louvain

Chief factors in Polish groups

(Joint work with Colin Reid.) For a Polish group G , closed normal subgroups $L < K$ of G form a chief factor K/L if there is no closed normal subgroup of G strictly between L and K . Chief factors play an important role in the structure theory of finite groups. Surprisingly, the theory of chief factors admits a natural and useful extension to the setting of Polish groups. We discuss this theory and its two key ingredients, the association relation and normal compressions. We then outline a Schreier refinement theorem and a trichotomy theorem for topologically characteristically simple Polish groups. Time permitting, we discuss applications to locally compact Polish groups and finitely generated branch groups.