Definable topological dynamics and variants of definable amenability

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Abstract

In this talk we will discuss definable topological dynamics of groups definable in NIP theories described in terms of subgroups and quotients that satisfy specific variants of definable amenability. For such a group we try to describe the Ellis group of its universal definable flow in purely model-theoretic terms. We show that under certain assumptions the Ellis group does not depend on the ambient model, proving a variant of the Ellis group conjecture. We then apply the general results to the o-minimal and p-adic cases.