

Membership Problem in groups acting freely on Z^n -trees

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Groups acting freely on Z^n -trees (Z^n -free groups) play a key role in the study of non-archimedean group actions. Following Stallings' ideas, we develop graph-theoretic techniques to investigate subgroup structure of Z^n -free groups. As an immediate application of the presented method, we give an effective solution to the Uniform Membership Problem and the Power Problem in Z^n -free groups.

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