SUBELLiptic Poincaré inequalities: 
THE CASE $p < 1$

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Abstract

We obtain (weighted) Poincaré type inequalities for vector fields satisfying the Hörmander condition for $p < 1$ under some assumptions on the subelliptic gradient of the function. Such inequalities hold on Boman domains associated with the underlying Carnot-Carathéodory metric. In particular, they remain true for solutions to certain classes of subelliptic equations. Our results complement the earlier results in these directions for $p \geq 1$.

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