

# Stretched non-positive Weyl connections on solvable Lie groups

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## Abstract

We determine the structure of solvable Lie groups endowed with invariant stretched non-positive Weyl connections and find classes of solvable Lie groups admitting and not admitting such connections. In dimension 4 we fully classify solvable Lie groups which admit invariant SNP Weyl connections. These results are aimed at solving an important problem of finding manifolds with Weyl connections of non-positive Weyl curvature but with no Riemannian metrics of non-positive curvature. The problem is important in the area of Gaussian thermostats .

## References

- [BJT] M. Bocheński, P. Jastrzębski, A. Tralle, *Stretched non-positive Weyl connections on solvable Lie groups*, Ann. Mat. Pura Appl. , to appear, arxiv: math.DG/2207.00318