

## **Cohomogeneity one conformal actions on the 3-sphere and the three-dimensional Euclidean space**

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**Abstract.** The aim of this paper is to classify cohomogeneity one (and zero) conformal actions on the three-dimensional Riemannian spaces whose conformal groups are essential, up to orbit equivalence. Among other results, for any such Riemannian space  $M$ , the representations of connected Lie groups acting with cohomogeneity one or zero on  $M$  are determined in the conformal group of  $M$  up to conjugacy and then up to orbit equivalence. Also the orbits are specified up to conformal equivalence.

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