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Title: Control systems on the Heisenberg group: equivalence and classification

Author(s): Catherine E. Bartlett, Rory Biggs and Claudiu C. Remsing

Left-invariant control affine systems on the three-dimensional Heisenberg group are classified under detached feedback equivalence, strongly detached feedback equivalence, and state space equivalence. The corresponding controllable cost-extended systems (associated to left-invariant optimal control problems with quadratic cost) are also classified. As a corollary, a classification of the left-invariant metric point-affine structures is obtained.

Address:

Catherine E. Bartlett
Department of Mathematics
(Pure and Applied)
Rhodes University
P.O. Box 94
6140 Grahamstown
South Africa

Address:

Rory Biggs
Department of Mathematics
(Pure and Applied)
Rhodes University
P.O. Box 94
6140 Grahamstown
South Africa

Address:

Claudiu C. Remsing
Department of Mathematics
(Pure and Applied)
Rhodes University
P.O. Box 94
6140 Grahamstown
South Africa