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*Classification of orthogonal coordinate webs in three-dimensional Minkowski space*

The use of isometry group invariants to classify orthogonally separable Hamiltonian systems and their associated orthogonal coordinate webs in spaces of constant curvature has been remarkably successful on the Euclidean and Minkowski planes. Recently, Horwood, McLenaghan and Smirnov derived an invariant-based classification for the eleven orthogonal coordinate webs in three-dimensional Euclidean space. In this talk, I will focus on a substantially harder problem, namely three-dimensional Minkowski space, for which there are fifty distinct coordinate systems which permit orthogonal separation of the associated Hamilton-Jacobi and Helmholtz equations. I will outline an invariant classification scheme for the corresponding thirty-eight orthogonal coordinate webs, emphasizing not only the role of the group invariants in its development, but also the importance of group covariants, reduced invariants and conformal symmetries.