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Invariant classification of the orthogonally separable webs in Minkowski 3-space

An invariant classification of the orthogonally separable webs for the Hamilton–Jacobi equation for the geodesics and the wave equation in terms of invariants of valence two Killing tensors under the action of the isometry group is described. The theory is applied to show that the Morosi–Tondo integrable system derived as a stationary reduction of the seventh order Korteweg–de Vries flow is an orthogonally separable Hamiltonian system.

Joint work with Joshua Horwood and Roman Smirnov.