

1014-49-1446

Jeanne N Clelland (jeanne.clelland@colorado.edu), 395 UCB, University of Colorado, Boulder, CO 80309, and **Christopher G Moseley*** (Chris.Moseley@usma.edu), Department of Mathematical Sciences, United States Military Academy, 646 Swift Road, West Point, NY 12518.
Sub-Finsler Geometry in Dimension Three.

The notion of *sub-Finsler geometry* is a natural generalization of sub-Riemannian geometry with applications to dynamical systems and optimal control theory. We compute a complete set of local differential invariants for sub-Finsler contact three-manifolds, geodesic equations, and the Jacobi operator and investigate homogeneous examples, including a worked example on the Heisenberg group. (Received September 28, 2005)