

New Derivation Operators and their Applications in Dual Finsler Geometry

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In this paper work I will introduce the dynamical covariant derivative operator on the dual space of a given Finsler space using the idea of Legendre duality between the lagrangian formalism and the hamiltonian formalism. Making use of this new operator introduced I will proof that the solution curve equations and their deviations have an elegant geometrical expression.

Keywords: Tangent Bundle, Cotangent Bundle, Lagrangian, Hamiltonian, Legendre Duality, Geodesic Spray, Ehresmann Connection, Berwald connection, geodesic, natural lift.