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Finslerian approach to Lagrange mechanics. (English) [Zbl 0789.53013](#)

Szente, J. (ed.) et al., Differential geometry and its applications. Proceedings of a colloquium, held in Eger, Hungary, August 20-25, 1989, organized by the János Bolyai Mathematical Society. Amsterdam: North-Holland Publishing Company. Colloq. Math. Soc. János Bolyai. 56, 411-415 (1992).

Let $M^n = (M, g_{ij}(x, y))$ be a generalized Lagrange space with the d -tensor field $g_{ij} = \gamma_{ij}(x) + y_i y_j / c^2$, where γ_{ij} is a Riemannian metric, c a positive number, (x^i, y^i) a canonical coordinate system of TM and $y_i = \gamma_{ij} y^j$. The purpose of the present paper is to make an abstract of the main results on M^n from two joint papers with R. Miron [Tensor, New Ser. 48, 52-63 and 153-168 (1989; [Zbl 0703.53021](#) and [Zbl 0708.53057](#))].

For the entire collection see [[Zbl 0764.00002](#)].

Reviewer: M. Matsumoto (Kyoto)

MSC:

[53B40](#) Local differential geometry of Finsler spaces and generalizations (areal metrics)

[70-02](#) Research exposition (monographs, survey articles) pertaining to mechanics of particles and systems

Keywords:

[Lagrange space](#)