

ANNALES DE L'I. H. P., SECTION A

M. FRANCAVIGLIA

D. KRUPKA

Comment by the editors on the paper : “The hamiltonian formalism in higher order variational problems”

Annales de l'I. H. P., section A, tome 42, n° 2 (1985), p. 213

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COMMENTAIRE DE LA RÉDACTION

Comment by the editors on the paper

The Hamiltonian formalism in higher order variational problems

(Ann. Inst. Henri Poincaré, t. XXXVII, n° 3, 1982, p. 295-315)

by M. FRANCAVIGLIA (*) and D. KRUPKA (**)

It has been pointed out to us by P. Dedecker that the paper quoted above contains some errors, and in particular that Theorem 2, page 304, is incorrect. P. Dedecker comments on that point in [1] [2] [3]. The authors have agreed to the existence of errors, as regards in particular Theorem 2. One of them (D. K.) has reconsidered the problem in [4] and also drawn our attention to the relevance of [5] in that context. The reader is referred to the quoted literature for more information.

- [1] P. DEDECKER, Existe-t-il, en calcul des variations, un formalisme de Hamilton-Jacobi-E. Cartan pour les intégrales multiples d'ordre supérieur? *C. R. Acad. Sci. Paris, Série 1*, t. **298**, 1984, p. 397-400.
- [2] P. DEDECKER, Sur le formalisme de Hamilton-Jacobi-E. Cartan pour une intégrale multiple d'ordre supérieur. *C. R. Acad. Sci. Paris, Série 1*, t. **299**, 1984, p. 363-366.
- [3] P. DEDECKER, On the generalization to Field Theory of the Integral Invariants of H. Poincaré and E. Cartan, in « Differential Geometric Methods in Mathematical Physics », Proceedings of a Conference held at Technische Universität Clausthal, Aug. 30, Sept. 3, 1983, *Lecture Notes in Mathematics*, Springer Verlag, Berlin-Heidelberg, 1984.
- [4] D. KRUPKA, On the higher order Hamilton theory in fibered spaces, in Geometrical Methods in Physics, Proc. Conf. on Diff. Geom. and Appl., t. **2**, Nové Město na Moravě, September 1983; J. E. Purkyně University, Brno (Czechoslovakia), 1984, p. 167-184.
- [5] W. F. SHADWICK, The Hamiltonian formulation of regular r -th order Lagrangian field theories, *Lett. in Math. Phys.*, t. **6**, 1982, p. 409-416.

(*) Istituto di Fisica Matematica «J.-L. Lagrange», Università di Torino, Via C. Alberto 10, 10123 Torino (Italy).

(**) Department of Mathematics, Faculty of Science, J. E. Purkyně University, Janačkovo náměstí 2a, 66295 Brno, Czechoslovakia.