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Canonical Formalism for Lagrangians of Maximal Nonlocality

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Abstract: A canonical formalism for Lagrangians of maximal nonlocality is established. The method is based on the familiar Legendre transformation to a new function, which can be derived from the maximally nonlocal Lagrangian. The corresponding canonical equations are derived through the standard procedure in local theory and appear much like those local ones, though the implication of the equations is largely expanded.

PACS: 11.10.Lm Key words: nonlocality, Hamiltonian, instability

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