

## Affine legendrians and co-legendrians

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### ABSTRACT.

The aim of the paper is to define and to study legendrians and their dual objects, co-legendrians, as generalizations of lagrangians and affine hamiltonians. The structure of closed legendrians, Helmholtz conditions and some properties related to their Euler-Lagrange equations, Hamilton equations and energy form are studied. A duality between hyperregular legendrians and co-legendrians (including their Euler-Lagrange and Hamilton equations) is found.

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