LAGRANGIAN FOLIATIONS AND CONNECTIONS IN SYMPLECTIC GEOMETRY

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Resumo. We discuss the interplay between lagrangian foliations and connections in symplectic geometry, beginning with the traditional case of symplectic manifolds and then passing to the more general context of poly- and multisymplectic structures on fiber bundles, which is relevant for the covariant hamiltonian formulation of classical field theory. In all cases, the Bott connection (or an appropriately extended version there of) plays a central role in proving that the leaves of such foliations are at affine manifolds.

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