

# Symplectically fat bundles

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It is well known that there are two general ways to endow the total space of a fiber bundle with a fiberwise symplectic form. The first one is given by the Thurston's theorem on symplectic fibrations. The second is given by the Sternberg, Weinstein and Lerman theorems on fat bundles and symplectic manifolds. We will call the symplectic fibrations constructed with the Sternberg and Weinstein theorem *symplectically fat*.

This talk is devoted to new constructions of symplectically fat fiber bundles. The latter are constructed in two ways: using the Kirwan map and expressing the fatness condition in terms of the isotropy representation related to the  $G$ -structure over some homogeneous space.