

1125-14-2292 **Justin Sawon*** (sawon@email.unc.edu), Department of Mathematics, University of North Carolina, Chapel Hill, NC 27599-3250. *Holomorphic Lagrangian fibrations*.

A hyperkahler manifold is a Riemannian manifold M with a triple of complex structures I, J, K that make it into a Kahler manifold in many different ways. If we fix one complex structure, say I , on a compact hyperkahler manifold M , and consider holomorphic fibrations with respect to I , then a surprising result of Matsushita states that these fibrations are Lagrangian with respect to the Kahler forms of J and K . In this talk I will describe some examples of these ‘holomorphic Lagrangian fibrations’. The construction and study of dual fibrations, which arise in Mirror Symmetry, is a major area of investigation. (Received September 20, 2016)