

# Plurisubharmonicity and pseudoconvexity in Lagrangian and calibrated geometry

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I will show that the classical concepts of a plurisubharmonic function and a pseudoconvex manifold in complex analysis can be carried over to a broad context including: all calibrated geometries, Lagrangian geometry, and  $p$ -convex geometry. Furthermore, many of the fundamental results from this area of complex analysis can be established in these other settings. Such results include the solution of the Levi problem and solutions to the Dirichlet problem for analogues of the Monge-Ampère equation. This represents work in progress with Reese Harvey.