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Metric characterization of the ball in $\mathbb{C}^d$

Abstract: We prove that the Kobayashi metric of a bounded strictly pseudoconvex domain in $\mathbb{C}^d$, $d \geq 2$, is Kähler if and only if the universal cover of the domain is biholomorphic to the unit ball in $\mathbb{C}^d$. This result is a consequence of a more general result concerning the extension of a locally symmetric Hermitian metric, defined outside a compact set of a Stein manifold with complex dimension greater than one. This is a joint work with Andrew Zimmer.