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**Andrew Zimmer\*** ([amzimmer2@wisc.edu](mailto:amzimmer2@wisc.edu)). *Compactness of the  $\bar{\partial}$ -Neumann problem on domains with bounded intrinsic geometry.*

By considering intrinsic geometric conditions, we introduce a new class of domains in complex Euclidean space. This class is invariant under biholomorphism and includes strongly pseudoconvex domains, finite type domains in dimension two, convex domains,  $\mathbb{C}$ -convex domains, and homogeneous domains. For this class of domains, we show that compactness of the  $\bar{\partial}$ -Neumann operator on  $(0, q)$ -forms is equivalent to the boundary not containing any  $q$ -dimensional analytic varieties (assuming only that the boundary is a topological submanifold). (Received August 31, 2020)