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Susanna Dann* (danns@missouri.edu). *The Lower Dimensional Busemann-Petty Problem in the Complex Hyperbolic Space.*

The lower dimensional Busemann-Petty problem asks whether origin-symmetric convex bodies in \mathbb{R}^n with smaller volume of all k -dimensional sections necessarily have smaller volume. The answer is negative for $k > 3$. The problem is still open for $k = 2, 3$. We study this problem in the complex hyperbolic n -space and prove that the answer is affirmative only for sections of complex dimension one and negative for sections of higher dimensions. (Received September 04, 2013)