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**Michael Fraboni\*** (mfraboni@moravian.edu), Moravian College, Dept of Math/CS, 1200 Main St, Bethlehem, PA 18018, and **Terrence Napier**. *Strong  $q$ -Convexity in Uniform Neighborhoods of Subvarieties in Coverings of Complex Spaces*. Preliminary report.

Our main result is that, for any projective compact analytic subset  $Y$  of dimension  $q > 0$  in a reduced complex space  $X$ , there exists a neighborhood  $V$  of  $Y$  in  $X$  such that, for any covering space  $\Upsilon : \widehat{X} \rightarrow X$  in which  $\widehat{Y} \equiv \Upsilon^{-1}(Y)$  has no noncompact connected analytic subsets of pure dimension  $q$  with only compact irreducible components, there exists a  $C^\infty$  exhaustion function  $\phi$  on  $X$  which is strongly  $q$ -convex on  $\widehat{V} = \Upsilon^{-1}(V)$  outside a uniform neighborhood of the compact irreducible components of  $\widehat{Y}$ . (Received September 26, 2006)