1030-32-384   **Zbigniew Slodkowski*** (`zbigniew@uic.edu`). *Positive closed currents on pseudoconcave sets with thin fibers.* Preliminary report.

We consider closed, pseudoconcave subsets K of DxC with totally disconnected compact fibers over points of the unit disk D. Such sets arise (for example) as $K = h(X)\mathbf{X}$, where "h" stands for the polynomially convex hull of X and X is a compact subset of $bDxC$, with all fibers of X over points of bD (the boundary of D) having zero logarithmic capacity. We study the question (opened in general) under what additional condition the set K supports a positive, closed 1,1 current on DxC. The projection map of K onto D can be viewed upon as a generalized branched covering map with with highly complicated branching structure. We show, that under certain topological restrictions on the character of branching, and under assumption that the image of the branching set under the projection map has logarithmic capacity zero, the pseudoconcave set K supports a nontrivial positive closed current. (Received August 07, 2007)

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