## A SMOOTH CONVEX LOOP WITH VANISHING PROJECTIONS

## MOHAMMAD GHOMI

ABSTRACT. B. Solomon [1] has studied the problem of existence of a simple closed curve in  $\mathbf{R}^3$  whose projections into planes in three linearly independent directions vanish in the sense of currents. He discovered some *nonsmooth* examples of such curves, and proved that no examples (smooth or otherwise) exist on *strictly* convex surfaces. We show that smooth  $(C^{\infty})$  examples exist, and may be constructed on convex surfaces.



## References

[1] B. Solomon, Projecting codimension-two cycles to zero on hyperplanes in  $\mathbb{R}^{N+1}$ , Topology, to appear, preprint available at www.php.indiana.edu/~solomon/Math/Papers/cycles.pdf.

DEPARTMENT OF MATHEMATICS, UNIVERSITY OF SOUTH CAROLINA, COLUMBIA, SC 29208 *E-mail address:* ghomi@math.c.edu URL: www.math.sc.edu/~ghomi

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