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**Pan Liu\*** (liupan@wpi.edu), WPI 100 Institute RD, Mailbox 3608, Worcester, MA 01609. *A Two-Dimensional Pólya-Type Map Filling a Pyramid.*

We construct a family of Pólya-type volume-filling continuous maps from a rectangle onto a solid pyramid. The family is indexed by a parameter  $p$  between 1 and  $+\infty$  which gives the equation of the base of the pyramid as  $\|x\|^p + \|y\|^p \leq 1$ . We extend to these maps the differentiability results obtained by Peter Lax for the Pólya map and we study the limits as  $p \rightarrow 1$  and  $p \rightarrow \infty$ . (Received January 28, 2011)