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Andrew D Bridy* (bridy@math.wisc.edu), Department of Mathematics, University of Wisconsin-Madison, 480 Lincoln Drive, Madison, WI 53706. *Transcendence of the Artin-Mazur Zeta Function for Polynomial Maps in Positive Characteristic.*

The Artin-Mazur zeta function of a discrete dynamical system is a generating function that captures information about all periodic points of all periods. I show that some simple polynomial self-maps of $\mathbb{A}^1(\overline{\mathbb{F}}_p)$ have transcendental zeta functions. (Received September 10, 2012)