1077-VJ-1360   **Joshua P. Bowman*** (`joshua.bowman@gmail.com`), Department of Mathematics, Stony Brook University, Stony Brook, NY 11794. *Dynamical deltoids.* Preliminary report.

Polynomial self-maps of $\mathbb{C}$ have been well studied, along the way producing many familiar images of Julia sets and the Mandelbrot set. Polynomial maps of $\mathbb{C}^2$ are natural higher-dimensional analogues. One such map may be defined purely from the geometry of the classical deltoid curve. I will describe a complex one-dimensional family of polynomial maps of $\mathbb{C}^2$ that are linear perturbations of this "deltoid map" and state some of their dynamical properties. (Received September 19, 2011)