

Henon Map

The Henon Map visualization gives the orbit under iteration of the map $(x, y) \rightarrow (y + 1 - aa x^2, bb x)$.

The default values are $aa = 1.4$ and $bb = 0.3$. The initial point is $(x, y) = (cc, dd)$ with the defaults $cc = 1.0, dd = 1.0$. The number of iterations plotted is ee , but the first ff iterates are omitted. The defaults are $ee = 3000$ and $ff = 20$.

In 3DXM, to move the finished image, drag the image with the mouse. To zoom in our out, drag vertically with the Shift key pressed. (If you zoom in, you might want to increase parameter ee using Settings > Set Parameters.)

To zoom into a particular region, hold down Command and then drag a rectangle in the window, then the program will zoom into that region of the Henon attractor, allowing you to see it in greater detail.

(Morphing aa and bb works, but there is no default morph, so first select Set Morphing... from the Settings menu to set up the morph—be sure to click the Init To Current Values button, then change $aa0$ $aa1$, $bb0$ and $bb1$.)