

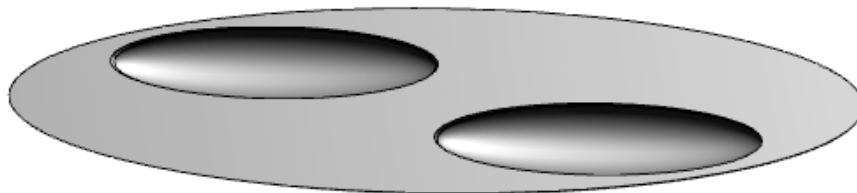
# $\delta$ Celt

Kenneth Brecher  
Departments of Astronomy and Physics  
Boston University  
Boston, MA 02215  
[brecher@bu.edu](mailto:brecher@bu.edu)

The “DeltaCelt” (or “ $\delta$ Celt”) is a new mathematically designed rattleback (or celt or anagyre or wobblestone). Its overall shape is that of a half prolate ellipsoid having the ratio of the major axis to the minor axis equal to the Feigenbaum dynamical constant  $\delta \sim 4.669\dots$  Two offset prolate ellipsoidal indentations with the same major axis/minor axis ratio are inset into the flat upper surface of the body. These cause the object to reverse spin direction when spun clockwise. The object can be made with the grooves reversed so as to give it the opposite preferred spin direction. Weights can be placed in the grooves to also adjust the spin dynamics.



$\delta$ CELT  
  
 $\delta$ CELT



\*USPTO Design Patent # D908,809