Abstract:

Software, music CDs, and electronic devices intended to facilitate “brainwave entrainment” are becoming increasingly prevalent in the consumer space. These products frequently make such bold claims as being able to reduce stress and anxiety, improve mental focus and acuity, increase energy and motivation, and some claim to be able to induce effects similar to various illicit drugs - all using nothing but a pair of headphones and a computer monitor.

We will introduce some of the history behind brainwave entrainment, give an overview of the science behind it (and some of the pseudoscience which isn’t), and introduce a software application designed to facilitate further investigation into the phenomenon of brainwave entrainment using off-the-shelf, consumer grade EEG hardware.