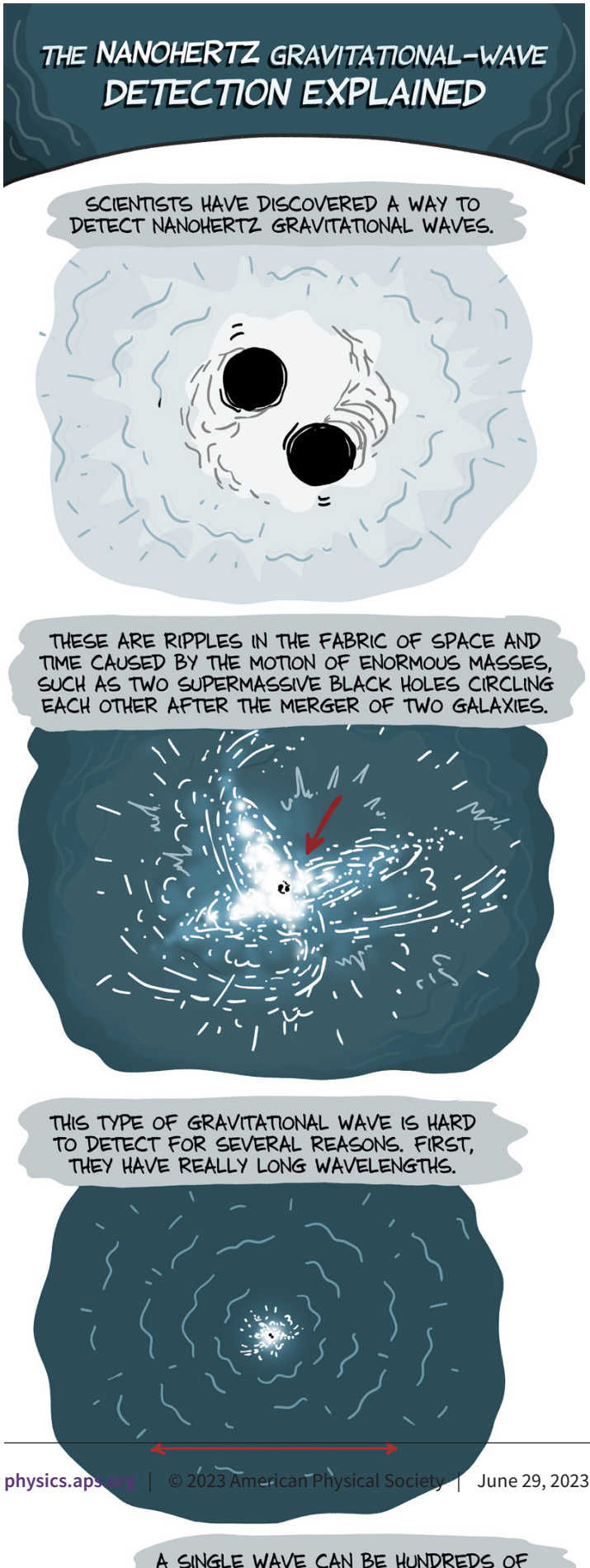
The Nanohertz Gravitational-Wave Detection Explained

Jorge Cham, aka PHD Comics, illustrates how researchers have turned our Galaxy into a giant antenna for catching gravitational waves, spotting for the first time a background hum of such waves.

Jorge Cham


THE NANOHERTZ GRAVITATIONAL-WAVE DETECTION EXPLAINED
SCIENTISTS HAVE DISCOVERED A WAY TO DETECT NANOHERTZ GRAVITATIONAL WAVES.
THESE ARE RIPPLES IN THE FABRIC OF SPACE AND TIME CAUSED BY THE MOTION OF ENORMOUS MASSES, SUCH AS TWO SUPERMASSIVE BLACK HOLES CIRCLING EACH OTHER AFTER THE MERGER OF TWO GALAXIES.
THIS TYPE OF GRAVITATIONAL WAVE IS HARD TO DETECT FOR SEVERAL REASONS. FIRST, THEY HAVE REALLY LONG WAVELENGTHS.
A SINGLE WAVE CAN BE HUNDREDS OF