

McDowell, Eric L. "Fixed Point Set Characterizations of Peano Continua and Absolute Retracts." *Topology and its Applications*, 128 (2003), pp. 123-134.

Abstract. We extend the notion of *absolute fixed point sets* to the setting of continuum-valued maps whose point images have small diameters. We demonstrate that the resulting class of spaces (ε -MAFS) coincides with the class of absolute fixed point sets and with the class of absolute retracts in the one-dimensional and planar settings, but that the class of n -dimensional absolute fixed point sets is strictly contained in ε -MAFS for all $n > 1$. Moreover, we will give two characterizations for the class of Peano continua in terms of ε -MAFS.