

The pseudo-means of the pseudo-arc

*Emanuel R. Márquez*¹

emanuelrmarquez@ciencias.unam.mx

A *continuum* is a compact connected metric space with more than one point. Let X be a continuum, a *pseudo-mean* for X is a continuous retraction $r : X \times X \rightarrow \Delta X$ where $\Delta X = \{(x, x) : x \in X\}$. Any continuum X admits two *trivial pseudo-means*, the first assigns to each ordered pair (x, y) the pair (x, x) and the second the pair (y, y) . Most of the known continua admit non-trivial pseudo-means. In 2017 Łysko conjectured that the pseudo-arc only admits the trivial pseudo-means.

We will talk about the pseudo-arc and how this is an example of a continuum that only admits the trivial pseudo-means, that is, the Łysko's conjecture is true.

¹Facultad de Ciencias UNAM