The n-shape of compact pairs and weak proper n-homotopy

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Abstract: Let μ^{n+1} be the $(n+1)$-dimensional universal Menger compactum and μ_0^{n+1} a Z-set in μ^{n+1} which homeomorphic to μ^{n+1}. We construct a categorical isomorphism from the n-shape category of Z-pairs in (μ^{n+1}, μ_0^{n+1}) to the weak proper n-homotopy category of complements of Z-pairs.