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Shape fibrator properties of PL manifolds

Following the concept of the PL fibrator (introduced by Daverman), we introduce a new concept of a fibrator (by slightly changing the PL setting). We call a closed, orientable PL n-manifold N a codimension-k shape $\mathrm{m}_{\mathrm{simpl}}$(o)-fibrator if all proper, surjective PL maps $p: M \to B$, from any closed, (orientable) PL $(n+k)$-manifold M to a simplicial triangulated manifold B, such that each point inverse has the same homotopy type as N, are approximate fibrations. Also we introduce a particular type of manifold called special manifold - closed manifold with a non-trivial fundamental group for which all self maps with non-trivial normal images on π_1-level are homotopy equivalences. First we shall address the following question: which special manifolds are shape $\mathrm{m}_{\mathrm{simpl}}$o-fibrators (a codimension-k shape $\mathrm{m}_{\mathrm{simpl}}$o-fibrator for all k)? The main result states that every orientable, special PL n-manifold with nontrivial first homology group is a shape $\mathrm{m}_{\mathrm{simpl}}$o-fibrator, if it is a codimension-2 shape $\mathrm{m}_{\mathrm{simpl}}$o-fibrator. Next we shall discuss new result about homology n-spheres that are codimension-$(n+1)$ $\mathrm{m}_{\mathrm{simpl}}$ fibrators.