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Slice links and smooth 4-manifolds

An appropriate variation of the trace embedding lemma allows us to prove results about smooth, closed, simply connected 4-manifolds; studying smoothly slice links in them. We focus on homotopy 4-spheres, which are potential counterexamples to the smooth 4-dimensional Poincaré conjecture. In particular, we split them, in the same way as exotic \mathbb{R}^4 's, in large and small 4-spheres and show that links cannot distinguish the latter ones from the standard S^4 .