1012-57-160   **Reinhard Schultz*** (`schultz@math.ucr.edu`), Department of Mathematics, University of California, Riverside, Riverside, CA 92521, and **Slawomir Kwasik**. *Tangential thickness of homotopy lens spaces.*

Let p be an odd prime and let M and N be closed $(2n+1)$-manifolds that are homotopy equivalent to a lens space with fundamenal group Z/p. For each $k \geq 2$ we give necessary and sufficient conditions for $M \times R^{2k}$ and $N \times R^{2k}$ to be homeomorphic, extending well known results in cases where $k > n$. The proof uses surgery theory, the Cohen-Moore-Neisendorfer machinery for proving the p-primary exponent theorems for homotopy groups of odd-dimensional spheres, and the p-primary EHP exact couple. (Received September 19, 2005)

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