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Daniel Matignon* (matignon@latp.univ-mrs.fr), CMI, 39, rue Joliot Curie, 13013 Marseille, France. *On the knot complement problem for non-hyperbolic knots.*

The talk concerns Dehn surgery on knots in closed 3-manifolds. We will see two exhaustive and infinite families of pairs (M, k) , where M is a lens space and k is a non-hyperbolic knot in M , which produces a manifold homeomorphic to M , by a non-trivial Dehn surgery. Then, we observe the uniqueness of such knot in lens spaces, the uniqueness of the slope, and that there is no preserving homeomorphism between the initial and the final lens spaces. We obtain further that Seifert fibered knots but the axes, and satellite knots are determined by their complements in lens spaces. An easy application shows that satellite knots are determined by their complement in closed, atoroidal and irreducible 3-manifolds. (Received September 15, 2009)