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Fixed point theory of geometric 3-manifolds. Preliminary report.

In topological fixed point theory, the Nielsen number $N(f)$ of a self map $f : M \rightarrow M$ is equal to the minimal number of fixed points among all maps homotopic to f provided M is a compact manifold of dimension at least 3. In this talk, we consider the computation of $N(f)$ when M is a *geometric* 3-manifold, i.e., M is endowed with one of the eight geometries according to Perelman-Thurston geometrization theorem. In particular, we focus on the cases when M admits Euclidean, spherical, $S^2 \times \mathbb{R}$, Nil, or Sol geometry. (Received September 05, 2015)