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Daniel Perry* (daniel.perry3@montana.edu), Bozeman, MT 59715. *On Homotopy Groups of 3-Dimensional Contact Manifolds*. Preliminary report.

Restrictions of motion in a smooth manifold may be captured by a distribution, a subbundle of the tangent bundle. Considerations of distributions, along with the Lie Bracket, allow for interpretation and definition of certain structures, foliations and contact manifolds, along with an appropriate sense of mapping, contact maps. These contact maps are used to define homotopy groups on contact manifolds. An indication as to what these groups are will be provided. (Received July 15, 2017)