1064-17-48 **Alper Bulut*** (alper.bulut@wmich.edu), Department of Mathematics, Western Michigan University, Kalamazoo, MI 49008. *On Properties of Topological Linear Loops.* Preliminary report.

Let H and K be a topological groups such that K is locally compact Hausdorff space and H has compact open topology such that $H \leq Aut(K)$. We may define a topological loop $\mathcal{L}$ by twisting the semi-direct product of H by K. We call $\mathcal{L}$ as a topological linear loop if $K = F^n$ and H is a closed topological subgroup of $GL(F, n)$. if F is real, complex or quaternion field we show that $\mathcal{L}$ is locally compact metric loop with inverse property which is Moufang if and only if it is a group, we compute its nucleus, and we discuss its right and left multiplication groups.

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