998-46-206 **Hugo Peimbert Arizmendi*** (hugo@servidor.unam.mx), Instituto de Matematicas, Circuito Exterior, Ciudad Universitaria, 04510 Mexico City, D.F., Mexico, and **Angel Carrillo** (angel@servidor.unam.mx), Circuito Exterior, Ciudad Universitaria, 04510 Mexico City, D.F., Mexico. *On the topological invertible elements of a topological algebra.*Preliminary report.

Let A be a topological algebra with unit e,we say that $a \in A$ is *topologically invertible* if $\overline{aA} = \overline{Aa} = A$. In such case there exists a pair of nets $\widetilde{a} = (a_\lambda)$ and $\widetilde{b} = (b_\lambda)$, called *right* and *left topological inverses* respectively, such that $aa_\lambda \to e$ and $b_\lambda a \to e$.Conversely, a net $\widetilde{a} = (a_\lambda)$ in A is called *advertible convergent* (shortly *advertible*) if there exists $a \in A$ such that $aa_\lambda \to e$ and $a_\lambda a \to e$. If (a_λ) is convergent, then $a_\lambda \to a^{-1}$. A topological algebra is called advertibly complete if every Cauchy advertible net is convergent.

In this talk we study the relation between bounded topologically invertibility and invertibility, according to the definition of a *bounded* net given by H. Arizmendi and R.Harte and called by W. Zelazko *almost bounded* and *ultimately bounded* by R.Vera. (Received February 26, 2004)