

t3_fintopo6 (TMY- mak1fYx8fps3pPiATrbFRcGUNRvALWB6)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k4_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k9_fin_topo : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4_fin_topo : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((\neg v2_struct_0 X0) \wedge (l1_orders_2 X0)) \Rightarrow (\forall X1. \\
 & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((v4_fin_topo \\
 & X1 X0) \Leftrightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 \\
 & X0))) \Rightarrow (\forall X3.(m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 \\
 & X0)))) \Rightarrow (\neg (X1 = k4_subset_1 (u1_struct_0 X0) X2 X3) \wedge ((X2 \neq k1_xboole_0) \wedge \\
 & ((X3 \neq k1_xboole_0) \wedge ((r1_xboole_0 X2 X3) \wedge (r1_xboole_0 (k9_fin_topo \\
 & X0 X2) X3))))))))))
 \end{aligned} \tag{1}$$

Theorem 1

$$\begin{aligned}
 & \forall X0.((\neg v2_struct_0 X0) \wedge (l1_orders_2 X0)) \Rightarrow (\forall X1. \\
 & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((\forall X2. \\
 & (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X3. \\
 & (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow (((X1 = k4_subset_1 \\
 & (u1_struct_0 X0) X2 X3) \wedge (r1_xboole_0 X2 X3)) \Rightarrow ((X2 = k1_xboole_0) \vee \\
 & ((X3 = k1_xboole_0) \vee ((\neg r1_xboole_0 (k9_fin_topo X0 X2) X3) \wedge (\neg \\
 & r1_xboole_0 X2 (k9_fin_topo X0 X3)))))))))) \Rightarrow (v4_fin_topo X1 X0))
 \end{aligned}$$