

t19_fintopo2 (TMVza- MmM7bEU3owo3MfqofoSRCnQwnTFcTj)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_fintopo2 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k8_fintopo2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_fintopo2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_fintopo2 X0)) \Rightarrow (\forall X1. \\
 & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (k8_fintopo2 \\
 & X0 X1 = ReplSep (toset (\lambda X2 : \iota. m1_subset_1 X2 (u1_struct_0 \\
 & X0))) (\lambda X2 : \iota. \forall X3. (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 \\
 & X0))) \Rightarrow ((X3 \in k6_fintopo2 X0 X2) \Rightarrow ((\neg r1_xboole_0 X3 X1) \wedge (\neg r1_xboole_0 \\
 & X3 (k3_subset_1 (u1_struct_0 X0) X1)))))) (\lambda X2 : \iota. X2)))
 \end{aligned} \tag{1}$$

Theorem 1

$$\begin{aligned}
 & \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_fintopo2 X0)) \Rightarrow (\forall X1. \\
 & (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 \\
 & (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((X1 \in k8_fintopo2 X0 X2) \Leftrightarrow (\forall X3. \\
 & (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((X3 \in k6_fintopo2 \\
 & X0 X1) \Rightarrow ((\neg r1_xboole_0 X3 X2) \wedge (\neg r1_xboole_0 X3 (k3_subset_1 (u1_struct_0 \\
 & X0) X2))))))))
 \end{aligned}$$