t24_metrizts (TMHzMCrCqbY-CGcU4zmuKrtMDsZ6iFtZP4SA)

October 27, 2020

Let $v2\_pre\_topc : \iota \Rightarrow o$ be given. Let $v3\_pcomps\_1 : \iota \Rightarrow o$ be given. Let $l1\_pre\_topc : \iota \Rightarrow o$ be given. Let $v1\_cantor\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_tops\_2 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v1\_metrizts : \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4\_card\_3 : \iota \Rightarrow o$ be given. Let $v1\_finset\_1 : \iota \Rightarrow o$ be given. Let $v1\_card\_1 : \iota \Rightarrow o$ be given. Let $m1\_setfam\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_card\_1 : \iota \Rightarrow \iota$ be given. Let $k4\_ordinal1 : \iota$ be given. Assume the following.

$$\forall X0.((v2\_pre\_topc\ X0) \wedge ((v3\_pcomps\_1\ X0) \wedge (l1\_pre\_topc\ X0))) \Rightarrow (\forall X1.((\neg v1\_finset\_1\ X1) \wedge (v1\_card\_1\ X1)) \Rightarrow (\forall X2.((v1\_cantor\_1\ X2\ X0) \wedge ((v1\_tops\_2\ X2\ X0) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))))) \Rightarrow (\neg(\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))) \Rightarrow (\neg(v1\_tops\_2\ X3\ X0) \wedge ((m1\_setfam\_1\ X3\ (u1\_struct\_0\ X0)) \wedge (\forall X4.(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))) \Rightarrow (\neg(r1\_tarski\ X4\ X3) \wedge ((m1\_setfam\_1\ X4\ (u1\_struct\_0\ X0)) \wedge (r1\_ordinal1\ (k1\_card\_1\ X4)\ X1)))))))) \wedge (\forall X3.((v1\_cantor\_1\ X3\ X0) \wedge ((v1\_tops\_2\ X3\ X0) \wedge (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))))) \Rightarrow (\neg(r1\_tarski\ X3\ X2) \wedge (r1\_ordinal1\ (k1\_card\_1\ X3)\ X1))))))) \tag{1}$$

Assume the following.

$$\forall X0.((v2\_pre\_topc\ X0) \wedge (l1\_pre\_topc\ X0)) \Rightarrow ((v1\_metrizts\ X0) \Leftrightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))))) \Rightarrow (\neg(v1\_tops\_2\ X1\ X0) \wedge ((m1\_setfam\_1\ X1\ (u1\_struct\_0\ X0)) \wedge (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))))) \Rightarrow (\neg(r1\_tarski\ X2\ X1) \wedge ((m1\_setfam\_1\ X2\ (u1\_struct\_0\ X0)) \wedge (r1\_ordinal1\ (k1\_card\_1\ X2)\ k4\_ordinal1))))))))) \tag{2}$$

Assume the following.

$$\neg v1\_finset\_1\ k4\_ordinal1 \tag{3}$$

Assume the following.

$$v1\_card\_1\ k4\_ordinal1 \tag{4}$$

Assume the following.

$$\forall X0.(v4\_card\_3\ X0) \Leftrightarrow (r1\_ordinal1\ (k1\_card\_1\ X0)\ k4\_ordinal1) \qquad (5)$$

Theorem 1

$$\forall X0.((v2\_pre\_topc\ X0) \wedge ((v3\_pcomps\_1\ X0) \wedge (l1\_pre\_topc\ X0))) \Rightarrow (\forall X1.((v1\_cantor\_1\ X1\ X0) \wedge ((v1\_tops\_2\ X1\ X0) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))))) \Rightarrow (\neg(v1\_metrizts\ X0) \wedge (\forall X2.((v1\_cantor\_1\ X2\ X0) \wedge ((v1\_tops\_2\ X2\ X0) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))))) \Rightarrow (\neg(r1\_tarski\ X2\ X1) \wedge (v4\_card\_3\ X2)))))$$