t37_hilbert1 (TMY-sekQMMSr7G3RB78fpPJP1yvmfWUVPryN)

October 27, 2020

Let $m1\_subset\_1 : \iota{\Rightarrow}\iota{\Rightarrow}o$ be given. Let $k1\_hilbert1 : \iota$ be given. Let $k3\_hilbert1 : \iota{\Rightarrow}\iota{\Rightarrow}\iota$ be given. Let $k4\_hilbert1 : \iota{\Rightarrow}\iota{\Rightarrow}\iota$ be given. Let $k6\_hilbert1 : \iota$ be given. Let $v6\_hilbert1 : \iota{\Rightarrow}o$ be given. Let $k1\_zfmisc\_1 : \iota{\Rightarrow}\iota$ be given. Let $k2\_hilbert1 : \iota$ be given. Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_hilbert1){\Rightarrow}(\forall X1.(m1\_subset\_1 \\ X1\ k1\_hilbert1){\Rightarrow}(k3\_hilbert1\ (k4\_hilbert1\ (k3\_hilbert1\ X0\ X1) \\ X0)\ X1 \in k6\_hilbert1)) \tag{1}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_hilbert1){\Rightarrow}(\forall X1.(m1\_subset\_1 \\ X1\ k1\_hilbert1){\Rightarrow}(\forall X2.(m1\_subset\_1\ X2\ k1\_hilbert1){\Rightarrow}((\\ (k3\_hilbert1\ X0\ X1 \in k6\_hilbert1){\wedge}(k3\_hilbert1\ X1\ X2 \in k6\_hilbert1)){\Rightarrow} \\ (k3\_hilbert1\ X0\ X2 \in k6\_hilbert1)))) \tag{2}$$

Assume the following.

$$v6\_hilbert1\ k6\_hilbert1 \tag{3}$$

Assume the following.

$$m1\_subset\_1\ k6\_hilbert1\ (k1\_zfmisc\_1\ k1\_hilbert1) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1\ X0\ k1\_hilbert1){\wedge}(m1\_subset\_1 \\ X1\ k1\_hilbert1)){\Rightarrow}(m1\_subset\_1\ (k4\_hilbert1\ X0\ X1)\ k1\_hilbert1) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1\ X0\ k1\_hilbert1){\wedge}(m1\_subset\_1 \\ X1\ k1\_hilbert1)){\Rightarrow}(m1\_subset\_1\ (k3\_hilbert1\ X0\ X1)\ k1\_hilbert1) \tag{6}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 \ X0 \ (k1\_zfmisc\_1 \ k1\_hilbert1)) \Rightarrow ((v6\_hilbert1$$
$$X0) \Leftrightarrow ((k2\_hilbert1 \in X0) \wedge (\forall X1.(m1\_subset\_1 \ X1 \ k1\_hilbert1) \Rightarrow$$
$$(\forall X2.(m1\_subset\_1 \ X2 \ k1\_hilbert1) \Rightarrow (\forall X3.(m1\_subset\_1$$
$$X3 \ k1\_hilbert1) \Rightarrow ((k3\_hilbert1 \ X1 \ (k3\_hilbert1 \ X2 \ X1) \in X0) \wedge ((k3\_hilbert1$$
$$(k3\_hilbert1 \ X1 \ (k3\_hilbert1 \ X2 \ X3)) \ (k3\_hilbert1 \ (k3\_hilbert1$$
$$X1 \ X2) \ (k3\_hilbert1 \ X1 \ X3)) \in X0) \wedge ((k3\_hilbert1 \ (k4\_hilbert1 \ X1$$
$$X2) \ X1 \in X0) \wedge ((k3\_hilbert1 \ (k4\_hilbert1 \ X1 \ X2) \ X2 \in X0) \wedge ((k3\_hilbert1$$
$$X1 \ (k3\_hilbert1 \ X2 \ (k4\_hilbert1 \ X1 \ X2)) \in X0) \wedge (((X1 \in X0) \wedge (k3\_hilbert1$$
$$X1 \ X2 \in X0)) \Rightarrow (X2 \in X0)))))))))))))$$

$$\tag{7}$$

Theorem 1

$$\forall X0.(m1\_subset\_1 \ X0 \ k1\_hilbert1) \Rightarrow (\forall X1.(m1\_subset\_1$$
$$X1 \ k1\_hilbert1) \Rightarrow (\forall X2.(m1\_subset\_1 \ X2 \ k1\_hilbert1) \Rightarrow (k3\_hilbert1$$
$$(k4\_hilbert1 \ (k4\_hilbert1 \ (k3\_hilbert1 \ X0 \ X1) \ X0) \ X2) \ X1 \in k6\_hilbert1)))$$