ELSEVIER

be conservative, or even volume-

classes of maps

(AA) $\left(h_1^{-1} \cdots h_m^{-1}\right) t \left(h_m \cdots h_1\right) t$

(EA) $\left(h_1^{-1} \cdots h_m^{-1}\right) e_{m+1} \left(h_m \cdots h_1\right) t$

(EE) $\left(t h_1^{-1} \cdots h_m^{-1}\right) e_{m+1} \left(h_m \cdots h_1 t\right) e_0$

where h_i *represents a Hénon transformation in the form* (2) *a*

Theorem 2 (cf. [9, Corollary 2.3] or [15, Theorem 4.4]). *Two reduced words* $g_m \cdots g_1$ *and* $g_n \cdots g_1$ *represent the same polynomial automorphism* g *if and only if* $n = m$ *and there exist maps* $s_i \in \mathcal{S}$, $i = 0, \ldots, m$ *such that* $s_0 = s_m = \mathrm{id}$ *and* $g_i = s_i g_i s_{i-1}^{-1}$.

From this theorem it follows that

To prove the second part of the proposition, consider first a linear, nonelementary involution $a(x, y)$. In that case, taking $s(x, y) = x(1, 0) + ya(1, 0)$, we see that $a = sts^{-1}$.

Next, we show that every affine, nonelementary involution (12) is $\mathcal{S}$-conjugate to its linear part a. We know that $(\xi, \eta) = (a - \mathrm{id})(c, 0)$ for some scalar c. Taking $s(x, y) = (x + c, y)$ it follows that $sas^{-1} = a$ and the proof is complete. □

3.2. Normal forms

We intend to d

Proof. Consider g given by the reduced word (14