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Corrections to

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By

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The proof of Lemma (1.3), p. 26, is incomplete. The gap may be fixed up by adding a further analysis of the situation in which Hasse derivatives d(g')=0 for all choices of α . Here, instead, we give an alternative proof which follows the same idea but improves the conclusion slightly.

Let the assumptions and the notation be the same as in Lemma (1.3), loco cito. We may assume $e' = \{x \in e \mid x_0^{-1}x \in Q\}$. Let us pick and fix a free base $y = (y_1, \dots, y_r)$ of e', and then extend (y, x_0) to a free base (y, x) of e, where $x = (x_0, x_1, \dots, x_s)$. Then we claim:

(1.3. a) There exist forms b_i of degrees $\nu_m - \nu_i$ in k[e], $1 \le i \le m-1$, such that if $h = h_m - \sum_{i=1}^{m-1} b_i h_i$, then h is normalized by (h_1, \dots, h_{m-1}) with respect to (k(x); y). (For the definition of normalizedness, one should refer to a paragraph preceeding Lemma (1.10), p. 35.)

A proof of (1.3.a) is obtained by writing out $h_m = \sum_A \psi_A x^A$ with $\psi_A \in k[y]$ and $A \in \mathbb{Z}_0^{s+1}$, and then applying Lemma (1.11), p. 37, to the system $(h_1, \dots, h_{m-1}, \psi_A)$ for each A.

Let us write $h = \sum_{B \in E} f_B y^B$ where E is a finite subset of Z'_0 and $f_B \in k[x]$ for all $B \in E$. Let $\varphi_B = f_B / x_0^b$ for each $B \in E$, where $b = \nu_m - |B|$. We then claim:

(1.3.b) $\varphi_B \in Q^b$ for all $B \in E$.

In fact, let $\lambda_i = y_i/x_0$, $\omega_j = x_j/x_0$ and $g = h/x_0^{\nu_m}$. Since $\lambda = (\lambda_1, \dots, \lambda_n)$