in m of degree $\leq s$. Substitute now (A.1) in the matrix $\tilde{H}_i$ given in (3.13). Next, leaving the 1st and 2nd columns of $\tilde{H}_i$ unchanged, perform the following transformations on the 3rd, 4th,...,($\nu_i = q_i + 1$)st columns:

for $n = 3, 4, ..., \nu_i$ do
    for $l = 2, ..., n-1$ do
        multiply the lth column by $\tau_{n-1,l-1}/\tau_{l-1,l-1}$
        and subtract from the nth column, overwriting the latter.
    end do
end do

Let us denote this transformed $\tilde{H}_i$ by $\hat{H}_i$. We have

$$(A.2)\qquad \hat{H}_i = \begin{bmatrix} \binom{0}{0}c_i^0 & 0 & 0 & \cdots & 0 \\ \binom{1}{0}c_i^1 & \binom{1}{1}1!c_i^1 & 0 & \cdots & 0 \\ \binom{2}{0}c_i^2 & \binom{2}{1}1!c_i^2 & \binom{2}{2}2!c_i^2 & \cdots & 0 \\ \vdots & \vdots & \vdots & & \vdots \\ \binom{p}{0}c_i^p & \binom{p}{1}1!c_i^p & \binom{p}{2}2!c_i^p & \cdots & \binom{p}{q_i}q_i!c_i^p \end{bmatrix}$$

Taking the common factor $s!c_i^s$ out of the $(s+1)$st column of $\hat{H}_i$, $s = 1, 2, ..., q_i$, we obtain the matrix

$$(A.3)\qquad \bar{H}_i = \begin{bmatrix} \binom{0}{0}c_i^0 & 0 & 0 & \cdots & 0 \\ \binom{1}{0}c_i^1 & \binom{1}{1}c_i^0 & 0 & \cdots & 0 \\ \binom{2}{0}c_i^2 & \binom{2}{1}c_i^1 & \binom{2}{2}c_i^0 & \cdots & 0 \\ \vdots & \vdots & \vdots & & \vdots \\ \binom{p}{0}c_i^p & \binom{p}{1}c_i^{p-1} & \binom{p}{2}c_i^{p-2} & \cdots & \binom{p}{q_i}c_i^{p-q_i} \end{bmatrix}.$$

As a result of all the above

$$(A.4)\qquad \det[\tilde{H}_1|\tilde{H}_2|\cdots|\tilde{H}_t|\boldsymbol{\lambda}] = \left[\prod_{i=1}^{t}\left(\prod_{s=1}^{q_i} s!c_i^s\right)\right] \det \bar{H},$$

where

$$\bar{H} = [\bar{H}_1|\bar{H}_2|\cdots|\bar{H}_t|\boldsymbol{\lambda}].$$

But $\bar{H}$ is the generalized Vandermonde matrix whose determinant is given by

$$(A.6)\qquad \det \bar{H} = \left[\prod_{1\leq i<j\leq t} (c_j - c_i)^{\nu_i\nu_j}\right] \prod_{i=1}^{t}(\lambda - c_i)^{\nu_i}.$$

From (A.4) and (A.6) the result in (3.15) now follows.