Appendix

The seven simultaneous algebraic equations for the coefficients

$$
\begin{bmatrix}
C_{11} & C_{12} & C_{13} & C_{14} & C_{15} & C_{16} & C_{17} \\
C_{21} & C_{22} & C_{23} & C_{24} & C_{25} & C_{26} & C_{27} \\
C_{31} & C_{32} & C_{33} & C_{34} & C_{35} & C_{36} & C_{37} \\
C_{41} & C_{42} & C_{43} & C_{44} & C_{45} & C_{46} & C_{47} \\
C_{51} & C_{52} & C_{53} & C_{54} & C_{55} & C_{56} & C_{57} \\
C_{61} & C_{62} & C_{63} & C_{64} & C_{65} & C_{66} & C_{67} \\
C_{71} & C_{72} & C_{73} & C_{74} & C_{75} & C_{76} & C_{77}
\end{bmatrix}
\begin{Bmatrix}
a_1 \\ a_2 \\ a_3 \\ a_4 \\ a_5 \\ a_6 \\ a_7
\end{Bmatrix}
=
\begin{Bmatrix}
P_1 \\ P_2 \\ P_3 \\ P_4 \\ P_5 \\ P_6 \\ P_7
\end{Bmatrix}
\tag{A1}
$$

where, $C_{11} = \dfrac{131072bD_{11}}{1575a^3} + \dfrac{524288D_{12}}{11025ab} + \dfrac{131072aD_{22}}{1575b^3} + \dfrac{1048576D_{66}}{11025ab} - \dfrac{65536bN_{xa}}{33075a}$,

$C_{12} = \dfrac{131072bD_{11}}{11025a^3} + \dfrac{131072aD_{22}}{17325b^3}$,

$C_{13} = \dfrac{131072bD_{11}}{17325a^3} + \dfrac{131072aD_{22}}{11025b^3} - \dfrac{65536bN_{xa}}{363825a}$,

$C_{14} = \dfrac{131072bD_{11}}{33075a^3} - \dfrac{524288D_{12}}{363825ab} + \dfrac{131072aD_{22}}{75075b^3} - \dfrac{1048576D_{66}}{363825ab} + \dfrac{65536bN_{xa}}{1091475a}$,

$C_{15} = \dfrac{131072bD_{11}}{75075a^3} - \dfrac{524288D_{12}}{363825ab} + \dfrac{131072aD_{22}}{33075b^3} - \dfrac{1048576D_{66}}{363825ab} - \dfrac{65536bN_{xa}}{1576575a}$,

$C_{16} = \dfrac{65536bD_{11}}{11025a^2} + \dfrac{65536D_{12}}{33075b} + \dfrac{131072D_{66}}{33075b}$,

$C_{17} = \dfrac{65536D_{12}}{33075a} + \dfrac{65536aD_{22}}{11025b^2} + \dfrac{131072D_{66}}{33075a}$,

$C_{21} = C_{12}$, $C_{22} = \dfrac{131072bD_{11}}{3675a^3} + \dfrac{524288D_{12}}{121275ab} + \dfrac{131072aD_{22}}{75075b^3} + \dfrac{1048576D_{66}}{121275ab} - \dfrac{65536bN_{xa}}{363825a}$,

$C_{23} = \dfrac{131072bD_{11}}{121275a^3} + \dfrac{131072aD_{22}}{121275b^3}$,

$C_{24} = \dfrac{6946816bD_{11}}{363825a^3} + \dfrac{1048576D_{12}}{675675ab} + \dfrac{131072aD_{22}}{225225b^3} + \dfrac{2097152D_{66}}{675675ab} - \dfrac{131072bN_{xa}}{2027025a}$,

$C_{25} = \dfrac{131072bD_{11}}{525525a^3} + \dfrac{131072aD_{22}}{363825b^3}$,

$C_{26} = -\dfrac{65536bD_{11}}{33075a^2} - \dfrac{65536D_{12}}{363825b} - \dfrac{131072D_{66}}{363825b}$,

$C_{27} = \dfrac{65536aD_{22}}{121275b^2}$,

$C_{31} = C_{13}$, $C_{32} = C_{23}$,

$C_{33} = \dfrac{131072bD_{11}}{75075a^3} + \dfrac{524288D_{12}}{121275ab} + \dfrac{131072aD_{22}}{3675b^3} + \dfrac{1048576D_{66}}{121275ab} - \dfrac{65536bN_{xa}}{1576575a}$,

$C_{34} = \dfrac{131072bD_{11}}{363825a^3} + \dfrac{131072aD_{22}}{525525b^3} + \dfrac{65536bN_{xa}}{12006225a}$,

$C_{35} = \dfrac{131072bD_{11}}{225225a^3} + \dfrac{1048576D_{12}}{675675ab} + \dfrac{6946816aD_{22}}{363825b^3} + \dfrac{2097152D_{66}}{675675ab} - \dfrac{65536bN_{xa}}{4729725a}$,

$C_{36} = \dfrac{65536bD_{11}}{121275a^2}$,

$C_{37} = -\dfrac{65536D_{12}}{363825a} - \dfrac{65536aD_{22}}{33075b^2} - \dfrac{131072D_{66}}{363825a}$,

$C_{41} = C_{14}$, $C_{42} = C_{24}$, $C_{43} = C_{34}$,

$C_{44} = \dfrac{84279296bD_{11}}{4729725a^3} + \dfrac{524288D_{12}}{525525ab} + \dfrac{131072aD_{22}}{546975b^3} + \dfrac{1048576D_{66}}{525525ab} - \dfrac{65536bN_{xa}}{1576575a}$,

$C_{45} = \dfrac{131072bD_{11}}{1576575a^3} + \dfrac{524288D_{12}}{12006225ab} + \dfrac{131072aD_{22}}{1576575b^3} + \dfrac{1048576D_{66}}{12006225ab} + \dfrac{65536bN_{xa}}{52026975a}$,

$C_{46} = -\dfrac{65536bD_{11}}{51975a^2} - \dfrac{65536D_{12}}{525525b} - \dfrac{131072D_{66}}{525525b}$,

$C_{47} = -\dfrac{65536D_{12}}{1091475a} + \dfrac{65536aD_{22}}{525525b^2} - \dfrac{131072D_{66}}{1091475a}$,

$C_{51} = C_{15}$, $C_{52} = C_{25}$, $C_{53} = C_{35}$, $C_{54} = C_{45}$,

$C_{55} = \dfrac{131072bD_{11}}{546975a^3} + \dfrac{524288D_{12}}{525525ab} + \dfrac{84279296aD_{22}}{4729725b^3} + \dfrac{1048576D_{66}}{525525ab} - \dfrac{65536bN_{xa}}{11486475a}$,

$C_{56} = \dfrac{65536bD_{11}}{525525a^2} - \dfrac{65536D_{12}}{1091475b} - \dfrac{131072D_{66}}{1091475b}$,

$C_{57} = -\dfrac{65536D_{12}}{525525a} - \dfrac{65536aD_{22}}{51975b^2} - \dfrac{131072D_{66}}{525525a}$,

$C_{61} = C_{16}$, $C_{62} = C_{26}$, $C_{63} = C_{36}$, $C_{64} = C_{46}$, $C_{65} = C_{56}$,

$C_{66} = \dfrac{16384abA_{55}}{1091475} + \dfrac{65536bD_{11}}{99225a} + \dfrac{65536aD_{66}}{363825b}$,

$C_{67} = \dfrac{16384D_{12}}{99225} + \dfrac{16384D_{66}}{99225}$,

$C_{71} = C_{17}$, $C_{72} = C_{27}$, $C_{73} = C_{37}$, $C_{74} = C_{47}$, $C_{75} = C_{57}$, $C_{76} = C_{67}$,

$C_{77} = \dfrac{16384abA_{44}}{1091475} + \dfrac{65536aD_{22}}{99225b} + \dfrac{65536bD_{66}}{363825a}$,

$P_1 = -\dfrac{64abp}{225}$,

$P_2 = P_3 = -\dfrac{64abp}{1575}$,

$P_4 = P_5 = -\dfrac{64abp}{4725}$,

$P_6 = P_7 = 0$