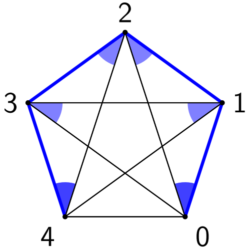
A quantum $\mathbb{P}^4$, filtered def of A_q:

$$b = \begin{pmatrix} 0 & 3 & -1 & -1 & -1 \\ -3 & 0 & 2 & 2 & -1 \\ 1 & -2 & 0 & 2 & -1 \\ 1 & -2 & -2 & 0 & 3 \\ 1 & 1 & 1 & -3 & 0 \end{pmatrix}$$



$$\Theta_1 = \{(-1,-1,1,1,0),(2,-1,-1,0,0),(0,0,-1,-1,2),(0,1,1,-1,-1)\}.$$

$$\begin{aligned}
x_1x_0 &= v^6\ x_0x_1 + x_2x_3 + C_{10}^{44}\ x_4^2, \\
x_2x_0 &= v^{-6}\ x_0x_2, \\
x_2x_1 &= v^3\ x_1x_2 + x_0^2, \\
x_3x_0 &= v^2\ x_0x_3 + C_{30}^{24}\ x_2x_4, \\
x_3x_1 &= v\ x_1x_3 + C_{31}^{04}\ x_0x_4 + C_{31}^{22}\ x_2^2, \\
x_3x_2 &= v^3\ x_2x_3 + x_4^2, \\
x_4x_0 &= v^{-2}\ x_0x_4 + C_{40}^{22}\ x_2^2, \\
x_4x_1 &= v^2\ x_1x_4 + C_{41}^{02}\ x_0x_2, \\
x_4x_2 &= v^{-6}\ x_2x_4, \\
x_4x_3 &= v^6\ x_3x_4 + x_1x_2 + C_{43}^{00}\ x_0^2.
\end{aligned}$$

The coefficients

$$C_{10}^{44} = C_{43}^{00} = -\frac{v^{12}}{1-v^{15}}, \quad C_{31}^{04} = \frac{v^5(1-v^5)(1+v^{10})}{(1-v^{10})^2(1-v^{15})^2},$$

$$C_{40}^{22} = \frac{1}{v^5(1-v^{10})}, \quad C_{30}^{24} = C_{41}^{02} = \frac{1+v^{10}}{v^5(1-v^{10})(1-v^{15})},$$

$$C_{31}^{22} = \frac{v^2(1+v^5+v^{15})}{(1-v^5)^3(1+v^5)^4(1-v^{15})^2}.$$

$$\begin{aligned}
x_1x_0 &= v^6\, x_0x_1 + x_2x_3 + C_{10}^{44}\, x_4^2,\\
x_2x_0 &= v^{-6}\, x_0x_2,\\
x_2x_1 &= v^3\, x_1x_2 + x_0^2,\\
x_3x_0 &= v^2\, x_0x_3 + C_{30}^{24}\, x_2x_4,\\
x_3x_1 &= v\, x_1x_3 + C_{31}^{04}\, x_0x_4 + C_{31}^{22}\, x_2^2,\\
x_3x_2 &= v^3\, x_2x_3 + x_4^2,\\
x_4x_0 &= v^{-2}\, x_0x_4 + C_{40}^{22}\, x_2^2,\\
x_4x_1 &= v^2\, x_1x_4 + C_{41}^{02}\, x_0x_2,\\
x_4x_2 &= v^{-6}\, x_2x_4,\\
x_4x_3 &= v^6\, x_3x_4 + x_1x_2 + C_{43}^{00}\, x_0^2.
\end{aligned}$$