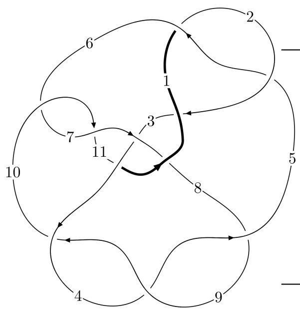
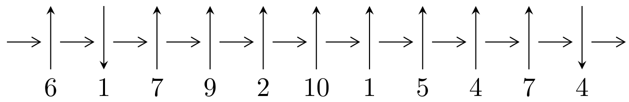
$11n_{113}$ $(K11n_{113})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

$$4,7 \xrightarrow[c_3]{} 1,3 \xrightarrow[c_2]{} 2 \xrightarrow[c_{11}]{} 11 \xrightarrow[c_{10}]{} 10 \xrightarrow[c_6]{} 6 \xrightarrow[c_9]{} 9 \xrightarrow[c_4]{} 5 \xrightarrow[c_8]{} 8 \twoheadrightarrow c_1, c_5, c_7$$

Ideals for irreducible components[2] of $X_{\mathbf{par}}$

$$\begin{aligned}
I_1^u = \langle & 6u^{12} - 31u^{11} + \cdots + 77b + 51,\ -16u^{12} - 20u^{11} + \cdots + 77a + 18, \\
& u^{13} + 9u^{11} + u^{10} + 29u^9 + 6u^8 + 37u^7 + 10u^6 + 14u^5 + 3u^4 + 5u^3 - 2u^2 + u - 1 \rangle \\
I_2^u = \langle & 27350u^{11} - 10434u^{10} + \cdots + 116501b + 508418, \\
& -702574u^{11} + 701168u^{10} + \cdots + 2213519a - 5780311, \\
& u^{12} - u^{11} + 8u^{10} - 7u^9 + 26u^8 - 13u^7 + 53u^6 + 7u^5 + 80u^4 + 38u^3 + 72u^2 + 24u + 19 \rangle \\
I_3^u = \langle & u^7 + 4u^5 - u^4 + 6u^3 - 2u^2 + b + 3u,\ u^7 + 5u^5 - u^4 + 10u^3 - 3u^2 + a + 7u - 2, \\
& u^8 + 5u^6 - u^5 + 10u^4 - 3u^3 + 8u^2 - 2u + 1 \rangle
\end{aligned}$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 33 representations.

[1] The image of knot diagram is generated by the software "**Draw programme**" developed by Andrew Bartholomew(`http://www.layer8.co.uk/maths/draw/index.htm#Running-draw`), where we modified some parts for our purpose(`https://github.com/CATsTAILs/LinksPainter`).

[2] All coefficients of polynomials are rational numbers. But the coefficients are sometimes approximated in decimal forms when there is not enough margin.

I. $I_1^u = \langle 6u^{12} - 31u^{11} + \cdots + 77b + 51,\ -16u^{12} - 20u^{11} + \cdots + 77a + 18,\ u^{13} + 9u^{11} + \cdots + u - 1\rangle$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.207792u^{12} + 0.259740u^{11} + \cdots + 0.246753u - 0.233766 \\ -0.0779221u^{12} + 0.402597u^{11} + \cdots + 1.53247u - 0.662338 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.259740u^{12} + 0.324675u^{11} + \cdots - 0.441558u + 1.20779 \\ -0.376623u^{12} - 0.220779u^{11} + \cdots + 0.740260u + 0.298701 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.129870u^{12} + 0.662338u^{11} + \cdots + 1.77922u - 0.896104 \\ -0.0779221u^{12} + 0.402597u^{11} + \cdots + 1.53247u - 0.662338 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.129870u^{12} + 0.662338u^{11} + \cdots + 1.77922u - 0.896104 \\ u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -\frac{3}{7}u^{12} - \frac{2}{7}u^{11} + \cdots + \frac{10}{7}u - \frac{1}{7} \\ -0.0779221u^{12} + 0.402597u^{11} + \cdots + 1.53247u - 0.662338 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.129870u^{12} + 0.662338u^{11} + \cdots + 0.779221u - 0.896104 \\ u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.662338u^{12} - 0.0779221u^{11} + \cdots + 1.02597u + 0.870130 \\ -u^2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.207792u^{12} + 0.259740u^{11} + \cdots - 0.753247u - 0.233766 \\ u^3 + u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.207792u^{12} + 0.259740u^{11} + \cdots - 0.753247u - 0.233766 \\ u^3 + u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= \frac{222}{77}u^{12} + \frac{8}{77}u^{11} + \frac{2008}{77}u^{10} + \frac{345}{77}u^9 + \frac{6465}{77}u^8 + 26u^7 + \frac{8137}{77}u^6 + \frac{3748}{77}u^5 + \frac{2942}{77}u^4 + \frac{285}{11}u^3 + \frac{1313}{77}u^2 - \frac{54}{77}u + \frac{501}{77}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^{13} - 6u^{12} + \cdots + 26u - 4$
c_2	$u^{13} + 8u^{12} + \cdots + 124u - 16$
c_3, c_4, c_8 c_9	$u^{13} + 9u^{11} + \cdots + u - 1$
c_6, c_{10}	$u^{13} - 9u^{12} + \cdots + 40u - 8$
c_7	$u^{13} - 2u^{12} + \cdots - 7u - 1$
c_{11}	$u^{13} - 2u^{12} + \cdots - 6u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{13} + 8y^{12} + \cdots + 124y - 16$
c_2	$y^{13} - 4y^{12} + \cdots + 31600y - 256$
c_3, c_4, c_8 c_9	$y^{13} + 18y^{12} + \cdots - 3y - 1$
c_6, c_{10}	$y^{13} - 3y^{12} + \cdots + 352y - 64$
c_7	$y^{13} + 26y^{12} + \cdots + 53y - 1$
c_{11}	$y^{13} - 24y^{12} + \cdots + 50y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.589003 + 0.398981I$ $a = -0.155544 + 0.694999I$ $b = -0.701578 - 0.113111I$	$-1.89853 - 1.81856I$	$3.56685 + 4.77795I$
$u = -0.589003 - 0.398981I$ $a = -0.155544 - 0.694999I$ $b = -0.701578 + 0.113111I$	$-1.89853 + 1.81856I$	$3.56685 - 4.77795I$
$u = 0.313260 + 0.606523I$ $a = 0.71205 - 1.73803I$ $b = -0.241660 - 0.056194I$	$1.23789 - 1.81241I$	$3.13803 - 1.59537I$
$u = 0.313260 - 0.606523I$ $a = 0.71205 + 1.73803I$ $b = -0.241660 + 0.056194I$	$1.23789 + 1.81241I$	$3.13803 + 1.59537I$
$u = -0.067844 + 0.603023I$ $a = 0.009402 + 0.327160I$ $b = -0.281404 + 1.089340I$	$1.10712 + 2.64289I$	$2.15723 - 4.40909I$
$u = -0.067844 - 0.603023I$ $a = 0.009402 - 0.327160I$ $b = -0.281404 - 1.089340I$	$1.10712 - 2.64289I$	$2.15723 + 4.40909I$
$u = 0.435514$ $a = 0.789752$ $b = 0.240167$	0.684474	14.6290
$u = -0.15240 + 1.67572I$ $a = 1.291360 - 0.096165I$ $b = -2.11530 - 0.55305I$	$-12.27390 - 4.64857I$	$3.70723 + 2.31166I$
$u = -0.15240 - 1.67572I$ $a = 1.291360 + 0.096165I$ $b = -2.11530 + 0.55305I$	$-12.27390 + 4.64857I$	$3.70723 - 2.31166I$
$u = -0.07312 + 1.68645I$ $a = -1.339690 - 0.391716I$ $b = 2.00168 - 0.40120I$	$-16.5929 - 2.0437I$	$1.74217 + 0.86236I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.07312-1.68645I$ $a=-1.339690+0.391716I$ $b=2.00168+0.40120I$	$-16.5929+2.0437I$	$1.74217-0.86236I$
$u=0.35135+1.77586I$ $a=-1.41246+0.16455I$ $b=2.21818-0.62507I$	$-17.1576+11.0164I$	$1.87407-4.91060I$
$u=0.35135-1.77586I$ $a=-1.41246-0.16455I$ $b=2.21818+0.62507I$	$-17.1576-11.0164I$	$1.87407+4.91060I$

II. $I^u_2 = \langle 27350u^{11} - 10434u^{10} + \cdots + 116501b + 508418,\ -7.03 \times 10^5u^{11} + 7.01 \times 10^5u^{10} + \cdots + 2.21 \times 10^6a - 5.78 \times 10^6,\ u^{12} - u^{11} + \cdots + 24u + 19\rangle$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.317401u^{11} - 0.316766u^{10} + \cdots + 11.2217u + 2.61137 \\ -0.234762u^{11} + 0.0895615u^{10} + \cdots - 7.84627u - 4.36407 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.537344u^{11} - 0.633335u^{10} + \cdots + 18.5569u + 3.49184 \\ -0.413104u^{11} + 0.358821u^{10} + \cdots - 14.9788u - 5.59521 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.0826395u^{11} - 0.227205u^{10} + \cdots + 3.37538u - 1.75270 \\ -0.234762u^{11} + 0.0895615u^{10} + \cdots - 7.84627u - 4.36407 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.0826395u^{11} - 0.227205u^{10} + \cdots + 3.37538u - 1.75270 \\ -0.131415u^{11} + 0.0852353u^{10} + \cdots - 5.94685u - 1.61733 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.0300079u^{11} - 0.174573u^{10} + \cdots - 0.414089u - 3.01586 \\ -0.0241200u^{11} + 0.170445u^{10} + \cdots - 0.572871u + 4.03170 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.214055u^{11} - 0.312440u^{10} + \cdots + 9.32223u - 0.135373 \\ -0.131415u^{11} + 0.0852353u^{10} + \cdots - 5.94685u - 1.61733 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.118075u^{11} - 0.244437u^{10} + \cdots - 10.4369u - 12.7712 \\ -0.0941194u^{11} + 0.432511u^{10} + \cdots + 2.19875u + 7.10565 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.674354u^{11} + 0.991579u^{10} + \cdots - 19.6620u + 0.118551 \\ 0.516880u^{11} - 0.642235u^{10} + \cdots + 16.6038u + 4.18226 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.674354u^{11} + 0.991579u^{10} + \cdots - 19.6620u + 0.118551 \\ 0.516880u^{11} - 0.642235u^{10} + \cdots + 16.6038u + 4.18226 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -\frac{7968}{116501}u^{11} + \frac{34084}{116501}u^{10} + \cdots - \frac{122912}{116501}u - \frac{631486}{116501}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$(u^3 + u^2 + 2u + 1)^4$
c_2	$(u^3 + 3u^2 + 2u - 1)^4$
c_3, c_4, c_8 c_9	$u^{12} - u^{11} + \cdots + 24u + 19$
c_6, c_{10}	$(u^2 + u + 1)^6$
c_7	$u^{12} + 5u^{11} + \cdots + 96u + 37$
c_{11}	$u^{12} - 3u^{11} + \cdots + 18u + 19$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$(y^3 + 3y^2 + 2y - 1)^4$
c_2	$(y^3 - 5y^2 + 10y - 1)^4$
c_3, c_4, c_8 c_9	$y^{12} + 15y^{11} + \cdots + 2160y + 361$
c_6, c_{10}	$(y^2 + y + 1)^6$
c_7	$y^{12} + 19y^{11} + \cdots - 1224y + 1369$
c_{11}	$y^{12} - 17y^{11} + \cdots - 2224y + 361$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.538956 + 0.733343I$ $a = 0.564995 + 0.432837I$ $b = 0.527133 - 0.553665I$	$-3.82135 - 2.02988I$	$7.01951 + 3.46410I$
$u = -0.538956 - 0.733343I$ $a = 0.564995 - 0.432837I$ $b = 0.527133 + 0.553665I$	$-3.82135 + 2.02988I$	$7.01951 - 3.46410I$
$u = -0.230918 + 0.703145I$ $a = -0.20112 + 2.69084I$ $b = -0.69983 - 1.68387I$	$-7.95893 - 0.79824I$	$0.490245 - 0.484655I$
$u = -0.230918 - 0.703145I$ $a = -0.20112 - 2.69084I$ $b = -0.69983 + 1.68387I$	$-7.95893 + 0.79824I$	$0.490245 + 0.484655I$
$u = 0.161517 + 1.387090I$ $a = 1.002040 + 0.183839I$ $b = -1.65945 + 0.10008I$	$-3.82135 + 2.02988I$	$7.01951 - 3.46410I$
$u = 0.161517 - 1.387090I$ $a = 1.002040 - 0.183839I$ $b = -1.65945 - 0.10008I$	$-3.82135 - 2.02988I$	$7.01951 + 3.46410I$
$u = -0.22870 + 1.46755I$ $a = -1.84111 + 0.39110I$ $b = 2.46907 - 0.14826I$	$-7.95893 - 4.85801I$	$0.49024 + 6.44355I$
$u = -0.22870 - 1.46755I$ $a = -1.84111 - 0.39110I$ $b = 2.46907 + 0.14826I$	$-7.95893 + 4.85801I$	$0.49024 - 6.44355I$
$u = 1.31249 + 1.08009I$ $a = -0.043037 - 0.415642I$ $b = -0.507847 + 0.209151I$	$-7.95893 + 4.85801I$	$0.49024 - 6.44355I$
$u = 1.31249 - 1.08009I$ $a = -0.043037 + 0.415642I$ $b = -0.507847 - 0.209151I$	$-7.95893 - 4.85801I$	$0.49024 + 6.44355I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.02457 + 1.83546I$ $a = -0.902821 + 0.085368I$ $b = 1.370920 + 0.193309I$	$-7.95893 + 0.79824I$	$0.490245 + 0.484655I$
$u = 0.02457 - 1.83546I$ $a = -0.902821 - 0.085368I$ $b = 1.370920 - 0.193309I$	$-7.95893 - 0.79824I$	$0.490245 - 0.484655I$

III. $\boldsymbol{I_3^u = \langle u^7 + 4u^5 - u^4 + 6u^3 - 2u^2 + b + 3u,\ u^7 + 5u^5 - u^4 + 10u^3 - 3u^2 + a + 7u - 2,\ u^8 + 5u^6 - u^5 + 10u^4 - 3u^3 + 8u^2 - 2u + 1\rangle}$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -u^7 - 5u^5 + u^4 - 10u^3 + 3u^2 - 7u + 2 \\ -u^7 - 4u^5 + u^4 - 6u^3 + 2u^2 - 3u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} u^4 + 3u^2 + 4 \\ -u^7 - 4u^5 + u^4 - 6u^3 + 3u^2 - 3u + 1 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -2u^7 - 9u^5 + 2u^4 - 16u^3 + 5u^2 - 10u + 2 \\ -u^7 - 4u^5 + u^4 - 6u^3 + 2u^2 - 3u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -2u^7 - 9u^5 + 2u^4 - 16u^3 + 5u^2 - 10u + 2 \\ -u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} u^7 + u^6 + 6u^5 + 3u^4 + 12u^3 + 2u^2 + 9u - 1 \\ u^7 + 4u^5 - u^4 + 6u^3 - 2u^2 + 3u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -2u^7 - 9u^5 + 2u^4 - 16u^3 + 5u^2 - 9u + 2 \\ -u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u^6 + 4u^4 - u^3 + 7u^2 - 2u + 3 \\ -u^2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -u^7 - 5u^5 + u^4 - 9u^3 + 3u^2 - 6u + 2 \\ -u^3 - u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -u^7 - 5u^5 + u^4 - 9u^3 + 3u^2 - 6u + 2 \\ -u^3 - u \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= u^7 + u^6 + 5u^5 + 7u^4 + 10u^3 + 15u^2 + 5u + 14$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^8 - u^7 + 3u^6 - 2u^5 + 4u^4 - 2u^3 + 4u^2 - u + 1$
c_2	$u^8 + 5u^7 + 13u^6 + 24u^5 + 32u^4 + 30u^3 + 20u^2 + 7u + 1$
c_3, c_8, c_9	$u^8 + 5u^6 - u^5 + 10u^4 - 3u^3 + 8u^2 - 2u + 1$
c_4	$u^8 + 5u^6 + u^5 + 10u^4 + 3u^3 + 8u^2 + 2u + 1$
c_5	$u^8 + u^7 + 3u^6 + 2u^5 + 4u^4 + 2u^3 + 4u^2 + u + 1$
c_6	$u^8 - 2u^7 + 3u^5 - 4u^4 + u^3 + 3u^2 - 2u + 1$
c_7	$u^8 - 2u^7 + 3u^6 + u^5 - 4u^4 + 3u^3 - 2u + 1$
c_{10}	$u^8 + 2u^7 - 3u^5 - 4u^4 - u^3 + 3u^2 + 2u + 1$
c_{11}	$u^8 - 2u^7 + u^5 + 2u^4 - 5u^3 + 6u^2 - 3u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^8 + 5y^7 + 13y^6 + 24y^5 + 32y^4 + 30y^3 + 20y^2 + 7y + 1$
c_2	$y^8 + y^7 - 7y^6 - 4y^5 + 36y^4 + 70y^3 + 44y^2 - 9y + 1$
c_3, c_4, c_8 c_9	$y^8 + 10y^7 + 45y^6 + 115y^5 + 176y^4 + 157y^3 + 72y^2 + 12y + 1$
c_6, c_{10}	$y^8 - 4y^7 + 4y^6 + y^5 + 4y^4 - 13y^3 + 5y^2 + 2y + 1$
c_7	$y^8 + 2y^7 + 5y^6 - 13y^5 + 4y^4 + y^3 + 4y^2 - 4y + 1$
c_{11}	$y^8 - 4y^7 + 8y^6 - 9y^5 + 4y^4 + 5y^3 + 10y^2 + 3y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.333178 + 1.212560I$ $a = 0.543877 + 0.445748I$ $b = -1.43305 - 0.31113I$	$-5.36621 + 1.77463I$	$0.03179 - 1.94850I$
$u = 0.333178 - 1.212560I$ $a = 0.543877 - 0.445748I$ $b = -1.43305 + 0.31113I$	$-5.36621 - 1.77463I$	$0.03179 + 1.94850I$
$u = 0.050347 + 1.305130I$ $a = 0.079860 + 0.540066I$ $b = -0.318291 + 0.506872I$	$-1.51415 + 3.01964I$	$3.37685 - 3.22289I$
$u = 0.050347 - 1.305130I$ $a = 0.079860 - 0.540066I$ $b = -0.318291 - 0.506872I$	$-1.51415 - 3.01964I$	$3.37685 + 3.22289I$
$u = -0.53500 + 1.45526I$ $a = -0.757549 + 0.849919I$ $b = 1.119420 - 0.799585I$	$-8.16060 - 3.11503I$	$-0.52239 + 1.94780I$
$u = -0.53500 - 1.45526I$ $a = -0.757549 - 0.849919I$ $b = 1.119420 + 0.799585I$	$-8.16060 + 3.11503I$	$-0.52239 - 1.94780I$
$u = 0.151478 + 0.362294I$ $a = 1.13381 - 1.98717I$ $b = -0.368086 - 0.741932I$	$1.88148 - 2.34966I$	$12.61375 + 3.05058I$
$u = 0.151478 - 0.362294I$ $a = 1.13381 + 1.98717I$ $b = -0.368086 + 0.741932I$	$1.88148 + 2.34966I$	$12.61375 - 3.05058I$

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^3+u^2+2u+1)^4(u^8-u^7+3u^6-2u^5+4u^4-2u^3+4u^2-u+1)$ $\cdot(u^{13}-6u^{12}+\cdots+26u-4)$
c_2	$(u^3+3u^2+2u-1)^4$ $\cdot(u^8+5u^7+13u^6+24u^5+32u^4+30u^3+20u^2+7u+1)$ $\cdot(u^{13}+8u^{12}+\cdots+124u-16)$
c_3, c_8, c_9	$(u^8+5u^6+\cdots-2u+1)(u^{12}-u^{11}+\cdots+24u+19)$ $\cdot(u^{13}+9u^{11}+\cdots+u-1)$
c_4	$(u^8+5u^6+\cdots+2u+1)(u^{12}-u^{11}+\cdots+24u+19)$ $\cdot(u^{13}+9u^{11}+\cdots+u-1)$
c_5	$(u^3+u^2+2u+1)^4(u^8+u^7+3u^6+2u^5+4u^4+2u^3+4u^2+u+1)$ $\cdot(u^{13}-6u^{12}+\cdots+26u-4)$
c_6	$(u^2+u+1)^6(u^8-2u^7+3u^5-4u^4+u^3+3u^2-2u+1)$ $\cdot(u^{13}-9u^{12}+\cdots+40u-8)$
c_7	$(u^8-2u^7+\cdots-2u+1)(u^{12}+5u^{11}+\cdots+96u+37)$ $\cdot(u^{13}-2u^{12}+\cdots-7u-1)$
c_{10}	$(u^2+u+1)^6(u^8+2u^7-3u^5-4u^4-u^3+3u^2+2u+1)$ $\cdot(u^{13}-9u^{12}+\cdots+40u-8)$
c_{11}	$(u^8-2u^7+\cdots-3u+1)(u^{12}-3u^{11}+\cdots+18u+19)$ $\cdot(u^{13}-2u^{12}+\cdots-6u-1)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_5	$(y^3+3y^2+2y-1)^4$ $\cdot(y^8+5y^7+13y^6+24y^5+32y^4+30y^3+20y^2+7y+1)$ $\cdot(y^{13}+8y^{12}+\cdots+124y-16)$
c_2	$(y^3-5y^2+10y-1)^4$ $\cdot(y^8+y^7-7y^6-4y^5+36y^4+70y^3+44y^2-9y+1)$ $\cdot(y^{13}-4y^{12}+\cdots+31600y-256)$
c_3, c_4, c_8 c_9	$(y^8+10y^7+45y^6+115y^5+176y^4+157y^3+72y^2+12y+1)$ $\cdot(y^{12}+15y^{11}+\cdots+2160y+361)(y^{13}+18y^{12}+\cdots-3y-1)$
c_6, c_{10}	$(y^2+y+1)^6(y^8-4y^7+4y^6+y^5+4y^4-13y^3+5y^2+2y+1)$ $\cdot(y^{13}-3y^{12}+\cdots+352y-64)$
c_7	$(y^8+2y^7+5y^6-13y^5+4y^4+y^3+4y^2-4y+1)$ $\cdot(y^{12}+19y^{11}+\cdots-1224y+1369)(y^{13}+26y^{12}+\cdots+53y-1)$
c_{11}	$(y^8-4y^7+8y^6-9y^5+4y^4+5y^3+10y^2+3y+1)$ $\cdot(y^{12}-17y^{11}+\cdots-2224y+361)(y^{13}-24y^{12}+\cdots+50y-1)$