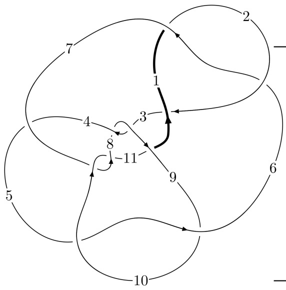
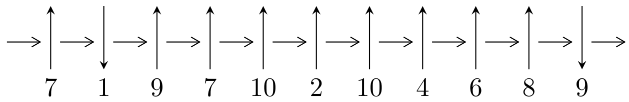
$11n_{121}$ ($K11n_{121}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u = \langle & 15u^{13} - 77u^{12} + \cdots + 8b + 128,\ 6u^{13} - 31u^{12} + \cdots + 8a + 52, \\
& u^{14} - 7u^{13} + 18u^{12} - 22u^{11} + 29u^{10} - 74u^9 + 113u^8 - 87u^7 + 91u^6 - 153u^5 + 144u^4 - 90u^3 + 52u^2 - 16\rangle \\
I_2^u = \langle & u^4 + u^3 - 2u^2 + b - u + 1,\ -u^7 - 2u^6 + 3u^5 + 9u^4 - u^3 - 14u^2 + 2a - 4u + 7, \\
& u^8 + 2u^7 - 3u^6 - 7u^5 + 3u^4 + 8u^3 - 2u^2 - 3u + 2\rangle \\
I_3^u = \langle & 1813271a^7u - 35217783a^6u + \cdots + 245581547a + 8729153,\ -5a^6u + 17a^5u + \cdots - 58a + 28, \\
& u^2 + u - 1\rangle
\end{aligned}$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 38 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. $\boldsymbol{I_1^u = \langle 15u^{13} - 77u^{12} + \cdots + 8b + 128,\ 6u^{13} - 31u^{12} + \cdots + 8a + 52,\ u^{14} - 7u^{13} + \cdots + 52u^2 - 16\rangle}$

(i) Arc colorings

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -\frac{3}{4}u^{13} + \frac{31}{8}u^{12} + \cdots - \frac{7}{4}u - \frac{13}{2} \\ -\frac{15}{8}u^{13} + \frac{77}{8}u^{12} + \cdots - \frac{15}{2}u - 16 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} \frac{9}{8}u^{13} - \frac{23}{4}u^{12} + \cdots + \frac{23}{4}u + \frac{19}{2} \\ -\frac{15}{8}u^{13} + \frac{77}{8}u^{12} + \cdots - \frac{15}{2}u - 16 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -\frac{25}{16}u^{13} + \frac{147}{16}u^{12} + \cdots - \frac{25}{4}u - 16 \\ -\frac{5}{2}u^{13} + \frac{25}{2}u^{12} + \cdots - 15u - 23 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -2.31250u^{13} + 11.9375u^{12} + \cdots - 8.25000u - 17.5000 \\ \frac{17}{4}u^{13} - \frac{51}{2}u^{12} + \cdots + \frac{87}{2}u + 57 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -2.31250u^{13} + 11.9375u^{12} + \cdots - 8.25000u - 17.5000 \\ -3u^{13} + \frac{55}{4}u^{12} + \cdots + \frac{13}{2}u - 11 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.687500u^{13} - 1.81250u^{12} + \cdots - 14.7500u - 6.50000 \\ -3u^{13} + \frac{55}{4}u^{12} + \cdots + \frac{13}{2}u - 11 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.0625000u^{13} + 0.312500u^{12} + \cdots + 1.37500u^2 - 0.500000u \\ \frac{1}{8}u^{13} - \frac{5}{8}u^{12} + \cdots + u + 1 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= \frac{7}{2}u^{13} - \frac{45}{2}u^{12} + 49u^{11} - 42u^{10} + \frac{133}{2}u^9 - 218u^8 + \frac{501}{2}u^7 - \frac{205}{2}u^6 + \frac{467}{2}u^5 - \frac{781}{2}u^4 + 206u^3 - 146u^2 + 74u + 82$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{14} + 4u^{13} + \cdots + 2u + 4$
c_2	$u^{14} + 4u^{13} + \cdots - 60u + 16$
c_3, c_5, c_8 c_9	$u^{14} - 2u^{12} + \cdots + u - 1$
c_4	$u^{14} + 2u^{13} + \cdots + u + 1$
c_7, c_{10}	$u^{14} + 7u^{13} + \cdots + 52u^2 - 16$
c_{11}	$u^{14} - 2u^{13} + \cdots + u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{14} + 4y^{13} + \cdots - 60y + 16$
c_2	$y^{14} + 12y^{13} + \cdots - 9072y + 256$
c_3, c_5, c_8 c_9	$y^{14} - 4y^{13} + \cdots - 7y + 1$
c_4	$y^{14} - 32y^{13} + \cdots - 35y + 1$
c_7, c_{10}	$y^{14} - 13y^{13} + \cdots - 1664y + 256$
c_{11}	$y^{14} + 28y^{13} + \cdots - 31y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.030851 + 0.799871I$ $a = -0.38902 + 1.71643I$ $b = -0.077846 + 0.998062I$	$-2.35665 - 1.45282I$	$3.02512 + 4.84277I$
$u = 0.030851 - 0.799871I$ $a = -0.38902 - 1.71643I$ $b = -0.077846 - 0.998062I$	$-2.35665 + 1.45282I$	$3.02512 - 4.84277I$
$u = -0.888023 + 0.907226I$ $a = -0.056882 + 0.355599I$ $b = 0.780697 + 0.720630I$	$3.47852 - 1.03170I$	$10.31187 + 3.61234I$
$u = -0.888023 - 0.907226I$ $a = -0.056882 - 0.355599I$ $b = 0.780697 - 0.720630I$	$3.47852 + 1.03170I$	$10.31187 - 3.61234I$
$u = 1.34441$ $a = 0.327510$ $b = -1.14468$	5.93172	19.0400
$u = 1.305980 + 0.345515I$ $a = 0.651777 - 1.019640I$ $b = -0.469252 - 1.244270I$	$1.72493 + 5.58758I$	$5.54818 - 8.99871I$
$u = 1.305980 - 0.345515I$ $a = 0.651777 + 1.019640I$ $b = -0.469252 + 1.244270I$	$1.72493 - 5.58758I$	$5.54818 + 8.99871I$
$u = -0.78379 + 1.18085I$ $a = -0.609706 - 1.225890I$ $b = 0.717040 - 0.989794I$	$2.65890 - 6.70021I$	$9.17423 + 9.29611I$
$u = -0.78379 - 1.18085I$ $a = -0.609706 + 1.225890I$ $b = 0.717040 + 0.989794I$	$2.65890 + 6.70021I$	$9.17423 - 9.29611I$
$u = -0.371550$ $a = -0.608220$ $b = -0.407117$	0.705670	14.0830

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.65634 + 0.30169I$ $a = -0.312168 + 0.212925I$ $b = 0.987493 - 0.774602I$	$11.67430 + 5.59817I$	$10.37388 - 2.22454I$
$u = 1.65634 - 0.30169I$ $a = -0.312168 - 0.212925I$ $b = 0.987493 + 0.774602I$	$11.67430 - 5.59817I$	$10.37388 + 2.22454I$
$u = 1.69222 + 0.34867I$ $a = -1.143650 + 0.827472I$ $b = 0.837766 + 1.059040I$	$10.7551 + 12.2709I$	$9.00524 - 6.45981I$
$u = 1.69222 - 0.34867I$ $a = -1.143650 - 0.827472I$ $b = 0.837766 - 1.059040I$	$10.7551 - 12.2709I$	$9.00524 + 6.45981I$

II.

$$\boldsymbol{I^u_2 = \langle u^4+u^3-2u^2+b-u+1,\ -u^7-2u^6+\cdots+2a+7,\ u^8+2u^7+\cdots-3u+2\rangle}$$

(i) Arc colorings

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} \frac{1}{2}u^7 + u^6 + \cdots + 2u - \frac{7}{2} \\ -u^4 - u^3 + 2u^2 + u - 1 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} \frac{1}{2}u^7 + u^6 + \cdots + u - \frac{5}{2} \\ -u^4 - u^3 + 2u^2 + u - 1 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u^7 + 3u^6 - u^5 - 8u^4 - u^3 + 7u^2 + u - 2 \\ -u^6 - u^5 + 2u^4 + u^3 - u^2 + u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -\frac{1}{2}u^7 - 2u^6 + \cdots - 3u + \frac{3}{2} \\ u^5 + u^4 - 2u^3 - u^2 + u - 1 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -\frac{1}{2}u^7 - 2u^6 + \cdots - 3u + \frac{3}{2} \\ -u^6 - u^5 + 3u^4 + 2u^3 - 3u^2 - u + 1 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -\frac{1}{2}u^7 - u^6 + \cdots - 2u + \frac{1}{2} \\ -u^6 - u^5 + 3u^4 + 2u^3 - 3u^2 - u + 1 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -\frac{1}{2}u^7 - u^6 + \cdots + u + \frac{5}{2} \\ -u^2 + 1 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= u^7 - 2u^6 - 12u^5 + u^4 + 27u^3 + 4u^2 - 20u + 8$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^8 + 3y^7 + 8y^6 + 11y^5 + 13y^4 + 10y^3 + 6y^2 + 3y + 1$
c_2	$y^8 + 7y^7 + 24y^6 + 39y^5 + 29y^4 + 6y^3 + 2y^2 + 3y + 1$
c_3, c_5, c_8 c_9	$y^8 + 6y^7 + 11y^6 + 3y^5 - 7y^4 + 3y^2 - 2y + 1$
c_4	$y^8 - 2y^7 + 3y^6 - 7y^4 + 3y^3 + 11y^2 + 6y + 1$
c_7, c_{10}	$y^8 - 10y^7 + 43y^6 - 103y^5 + 149y^4 - 130y^3 + 64y^2 - 17y + 4$
c_{11}	$y^8 - 2y^7 + 3y^6 + 7y^5 - 7y^4 + 7y^2 - 2y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.137390 + 0.472948I$ $a = -0.731887 - 0.924453I$ $b = 0.723319 - 1.106200I$	$2.71833 - 5.01867I$	$11.62851 + 5.79424I$
$u = -1.137390 - 0.472948I$ $a = -0.731887 + 0.924453I$ $b = 0.723319 + 1.106200I$	$2.71833 + 5.01867I$	$11.62851 - 5.79424I$
$u = 1.230910 + 0.145427I$ $a = 1.48274 - 0.12271I$ $b = -0.671852 - 0.866239I$	$-2.27367 + 2.59903I$	$8.03449 - 3.52166I$
$u = 1.230910 - 0.145427I$ $a = 1.48274 + 0.12271I$ $b = -0.671852 + 0.866239I$	$-2.27367 - 2.59903I$	$8.03449 + 3.52166I$
$u = 0.460618 + 0.367314I$ $a = -1.51624 + 2.93884I$ $b = -0.187636 + 0.807559I$	$-4.97144 - 0.82384I$	$-2.52456 - 0.73581I$
$u = 0.460618 - 0.367314I$ $a = -1.51624 - 2.93884I$ $b = -0.187636 - 0.807559I$	$-4.97144 + 0.82384I$	$-2.52456 + 0.73581I$
$u = -1.55414 + 0.23785I$ $a = -0.484613 + 0.369555I$ $b = 0.636169 + 0.536939I$	$4.52677 + 0.45848I$	$12.86156 + 0.22749I$
$u = -1.55414 - 0.23785I$ $a = -0.484613 - 0.369555I$ $b = 0.636169 - 0.536939I$	$4.52677 - 0.45848I$	$12.86156 - 0.22749I$

III. $\boldsymbol{I_3^u = \langle 1.81 \times 10^6 a^7 u - 3.52 \times 10^7 a^6 u + \cdots + 2.46 \times 10^8 a + 8.73 \times 10^6,\ -5a^6 u + 17a^5 u + \cdots - 58a + 28,\ u^2 + u - 1 \rangle}$

(i) Arc colorings

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} a \\ -0.0149913a^7u + 0.291165a^6u + \cdots - 2.03036a - 0.0721688 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1 \\ u - 1 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.0149913a^7u - 0.291165a^6u + \cdots + 3.03036a + 0.0721688 \\ -0.0149913a^7u + 0.291165a^6u + \cdots - 2.03036a - 0.0721688 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -0.958141a^7u + 0.521491a^6u + \cdots + 2.23707a - 2.43928 \\ 0.668303a^7u - 0.137182a^6u + \cdots - 3.74834a + 1.85545 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.276174a^7u - 0.189082a^6u + \cdots - 0.383077a + 1.14441 \\ -0.591962a^7u + 0.317116a^6u + \cdots + 3.13486a - 1.07567 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.276174a^7u - 0.189082a^6u + \cdots - 0.383077a + 1.14441 \\ 0.109484a^7u - 0.177972a^6u + \cdots + 3.26335a - 0.0291115 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.166690a^7u - 0.0111097a^6u + \cdots - 3.64643a + 1.17352 \\ 0.109484a^7u - 0.177972a^6u + \cdots + 3.26335a - 0.0291115 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.618998a^7u - 0.290245a^6u + \cdots + 1.45811a - 0.612049 \\ -0.561297a^7u + 0.232589a^6u + \cdots - 2.17226a + 0.297618 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u \\ -u + 1 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u \\ -u + 1 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= \frac{293655592}{120954731}a^7u - \frac{294297740}{120954731}a^6u + \cdots - \frac{534376752}{120954731}a + \frac{1281074574}{120954731}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_6	$(u^4 - u^3 + u^2 + 1)^4$
c_2	$(u^4 + u^3 + 3u^2 + 2u + 1)^4$
c_3, c_5, c_8 c_9	$u^{16} - u^{15} + \cdots + 16u + 11$
c_4	$u^{16} + u^{15} + \cdots + 254u + 71$
c_7, c_{10}	$(u^2 - u - 1)^8$
c_{11}	$u^{16} - 3u^{15} + \cdots - 160u + 89$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$(y^4 + y^3 + 3y^2 + 2y + 1)^4$
c_2	$(y^4 + 5y^3 + 7y^2 + 2y + 1)^4$
c_3, c_5, c_8 c_9	$y^{16} + 3y^{15} + \cdots - 124y + 121$
c_4	$y^{16} - 13y^{15} + \cdots - 5160y + 5041$
c_7, c_{10}	$(y^2 - 3y + 1)^8$
c_{11}	$y^{16} + 7y^{15} + \cdots + 49872y + 7921$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.618034$ $a = 0.111740 + 0.427214I$ $b = -0.851808 - 0.911292I$	$2.84290 + 3.16396I$	$9.82674 - 2.56480I$
$u = 0.618034$ $a = 0.111740 - 0.427214I$ $b = -0.851808 + 0.911292I$	$2.84290 - 3.16396I$	$9.82674 + 2.56480I$
$u = 0.618034$ $a = 1.83492 + 0.68723I$ $b = -0.851808 + 0.911292I$	$2.84290 - 3.16396I$	$9.82674 + 2.56480I$
$u = 0.618034$ $a = 1.83492 - 0.68723I$ $b = -0.851808 - 0.911292I$	$2.84290 + 3.16396I$	$9.82674 - 2.56480I$
$u = 0.618034$ $a = 1.66216 + 1.59873I$ $b = 0.351808 + 0.720342I$	$-4.15885 + 1.41510I$	$6.17326 - 4.90874I$
$u = 0.618034$ $a = 1.66216 - 1.59873I$ $b = 0.351808 - 0.720342I$	$-4.15885 - 1.41510I$	$6.17326 + 4.90874I$
$u = 0.618034$ $a = -3.10881 + 0.07733I$ $b = 0.351808 - 0.720342I$	$-4.15885 - 1.41510I$	$6.17326 + 4.90874I$
$u = 0.618034$ $a = -3.10881 - 0.07733I$ $b = 0.351808 + 0.720342I$	$-4.15885 + 1.41510I$	$6.17326 - 4.90874I$
$u = -1.61803$ $a = 0.549137 + 0.289903I$ $b = -0.851808 - 0.911292I$	$10.73860 + 3.16396I$	$9.82674 - 2.56480I$
$u = -1.61803$ $a = 0.549137 - 0.289903I$ $b = -0.851808 + 0.911292I$	$10.73860 - 3.16396I$	$9.82674 + 2.56480I$

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.61803$ $a = \quad 1.39752 + 0.54991I$ $b = -0.851808 + 0.911292I$	$10.73860 - 3.16396I$	$9.82674 + 2.56480I$
$u = -1.61803$ $a = \quad 1.39752 - 0.54991I$ $b = -0.851808 - 0.911292I$	$10.73860 + 3.16396I$	$9.82674 - 2.56480I$
$u = -1.61803$ $a = -0.389455 + 0.226689I$ $b = \quad 0.351808 + 0.720342I$	$3.73684 + 1.41510I$	$6.17326 - 4.90874I$
$u = -1.61803$ $a = -0.389455 - 0.226689I$ $b = \quad 0.351808 - 0.720342I$	$3.73684 - 1.41510I$	$6.17326 + 4.90874I$
$u = -1.61803$ $a = -1.05720 + 1.29472I$ $b = \quad 0.351808 + 0.720342I$	$3.73684 + 1.41510I$	$6.17326 - 4.90874I$
$u = -1.61803$ $a = -1.05720 - 1.29472I$ $b = \quad 0.351808 - 0.720342I$	$3.73684 - 1.41510I$	$6.17326 + 4.90874I$

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^4-u^3+u^2+1)^4(u^8+u^7+2u^6+u^5+3u^4+2u^3+2u^2+u+1)$ $\cdot(u^{14}+4u^{13}+\cdots+2u+4)$
c_2	$(u^4+u^3+3u^2+2u+1)^4$ $\cdot(u^8+3u^7+8u^6+11u^5+13u^4+10u^3+6u^2+3u+1)$ $\cdot(u^{14}+4u^{13}+\cdots-60u+16)$
c_3, c_9	$(u^8+3u^6-u^5+u^4-2u^3-u^2+1)(u^{14}-2u^{12}+\cdots+u-1)$ $\cdot(u^{16}-u^{15}+\cdots+16u+11)$
c_4	$(u^8-u^6+2u^5+u^4+u^3+3u^2+1)(u^{14}+2u^{13}+\cdots+u+1)$ $\cdot(u^{16}+u^{15}+\cdots+254u+71)$
c_5, c_8	$(u^8+3u^6+u^5+u^4+2u^3-u^2+1)(u^{14}-2u^{12}+\cdots+u-1)$ $\cdot(u^{16}-u^{15}+\cdots+16u+11)$
c_6	$(u^4-u^3+u^2+1)^4(u^8-u^7+2u^6-u^5+3u^4-2u^3+2u^2-u+1)$ $\cdot(u^{14}+4u^{13}+\cdots+2u+4)$
c_7	$(u^2-u-1)^8(u^8+2u^7-3u^6-7u^5+3u^4+8u^3-2u^2-3u+2)$ $\cdot(u^{14}+7u^{13}+\cdots+52u^2-16)$
c_{10}	$(u^2-u-1)^8(u^8-2u^7-3u^6+7u^5+3u^4-8u^3-2u^2+3u+2)$ $\cdot(u^{14}+7u^{13}+\cdots+52u^2-16)$
c_{11}	$(u^8-2u^7+\cdots-2u+1)(u^{14}-2u^{13}+\cdots+u-1)$ $\cdot(u^{16}-3u^{15}+\cdots-160u+89)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_6	$(y^4+y^3+3y^2+2y+1)^4$ $\cdot(y^8+3y^7+8y^6+11y^5+13y^4+10y^3+6y^2+3y+1)$ $\cdot(y^{14}+4y^{13}+\cdots-60y+16)$
c_2	$(y^4+5y^3+7y^2+2y+1)^4$ $\cdot(y^8+7y^7+24y^6+39y^5+29y^4+6y^3+2y^2+3y+1)$ $\cdot(y^{14}+12y^{13}+\cdots-9072y+256)$
c_3, c_5, c_8 c_9	$(y^8+6y^7+\cdots-2y+1)(y^{14}-4y^{13}+\cdots-7y+1)$ $\cdot(y^{16}+3y^{15}+\cdots-124y+121)$
c_4	$(y^8-2y^7+3y^6-7y^4+3y^3+11y^2+6y+1)$ $\cdot(y^{14}-32y^{13}+\cdots-35y+1)(y^{16}-13y^{15}+\cdots-5160y+5041)$
c_7, c_{10}	$(y^2-3y+1)^8$ $\cdot(y^8-10y^7+43y^6-103y^5+149y^4-130y^3+64y^2-17y+4)$ $\cdot(y^{14}-13y^{13}+\cdots-1664y+256)$
c_{11}	$(y^8-2y^7+3y^6+7y^5-7y^4+7y^2-2y+1)$ $\cdot(y^{14}+28y^{13}+\cdots-31y+1)(y^{16}+7y^{15}+\cdots+49872y+7921)$