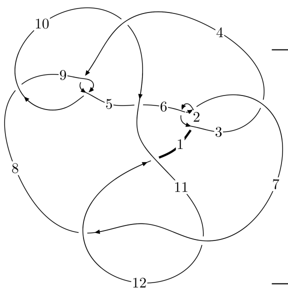
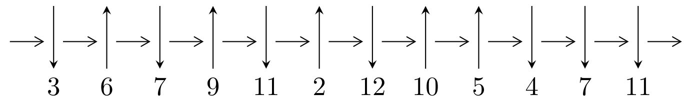
$12n_{0301}$ $(K12n_{0301})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

$2{,}7 \xrightarrow[c_6]{} 6 \xrightarrow[c_2]{} 3 \xrightarrow[c_3]{} 4 \xrightarrow[c_1]{} 1{,}11 \xrightarrow[c_5]{} 5 \xrightarrow[c_{10}]{} 10 \xrightarrow[c_9]{} 9 \xrightarrow[c_{12}]{} 12 \xrightarrow[c_7]{} 8 \twoheadrightarrow c_4, c_8, c_{11}$

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

$$\begin{aligned}
I_1^u = \langle & 1.34577 \times 10^{36} u^{46} + 4.13410 \times 10^{36} u^{45} + \cdots + 6.18526 \times 10^{36} b + 7.22944 \times 10^{36}, \\
& -4.63131 \times 10^{36} u^{46} - 3.13332 \times 10^{37} u^{45} + \cdots + 6.18526 \times 10^{37} a - 1.27145 \times 10^{38},\ u^{47} + 2u^{46} + \cdots - 7u^2
\end{aligned}$$

$$I_2^u = \langle b + 1,\ a^4 + 4a^3 u - 8a^2 u - 8a^2 + 8a + 5u,\ u^2 + u + 1\rangle$$

$$I_3^u = \langle b - 1,\ a^3 + 3a^2 u + 3au - 3a - 1,\ u^2 - u + 1\rangle$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 61 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. $\boldsymbol{I^u_1 = \langle 1.35 \times 10^{36} u^{46} + 4.13 \times 10^{36} u^{45} + \cdots + 6.19 \times 10^{36} b + 7.23 \times 10^{36},\ -4.63 \times 10^{36} u^{46} - 3.13 \times 10^{37} u^{45} + \cdots + 6.19 \times 10^{37} a - 1.27 \times 10^{38},\ u^{47} + 2u^{46} + \cdots - 7u^2 + 5 \rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -u^3 \\ u^3 + u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^3 \\ u^5 + u^3 + u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0.0748766u^{46} + 0.506578u^{45} + \cdots - 0.0189566u + 2.05560 \\ -0.217577u^{46} - 0.668379u^{45} + \cdots + 0.153362u - 1.16882 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 0.371873u^{46} + 0.438846u^{45} + \cdots + 1.29351u + 0.575382 \\ -0.151221u^{46} - 0.179133u^{45} + \cdots - 1.44030u + 0.207091 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 0.234371u^{46} + 1.04621u^{45} + \cdots + 0.637032u + 2.96733 \\ -0.245873u^{46} - 0.763265u^{45} + \cdots - 0.314870u - 1.29989 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -0.0256670u^{46} - 0.692390u^{45} + \cdots - 1.49667u - 3.70685 \\ 0.0370363u^{46} + 0.134133u^{45} + \cdots + 1.12375u + 0.747882 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 0.292454u^{46} + 1.17496u^{45} + \cdots - 0.172319u + 3.22442 \\ -0.217577u^{46} - 0.668379u^{45} + \cdots + 0.153362u - 1.16882 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -0.187891u^{46} - 0.374761u^{45} + \cdots + 0.526224u + 0.0784946 \\ 0.216050u^{46} + 0.341229u^{45} + \cdots + 1.29950u + 0.242159 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.884631u^{46} + 2.37548u^{45} + \cdots + 0.300832u + 0.344938$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{47} + 30u^{46} + \cdots + 70u - 25$
c_2, c_6	$u^{47} - 2u^{46} + \cdots + 7u^2 - 5$
c_3	$u^{47} + 2u^{46} + \cdots + 20u - 5$
c_4, c_9	$u^{47} + u^{46} + \cdots + 12u + 4$
c_5	$u^{47} - u^{46} + \cdots + 36u + 4$
c_7, c_{11}	$u^{47} + 3u^{46} + \cdots - 29u + 1$
c_8	$u^{47} - 21u^{46} + \cdots + 80u - 16$
c_{10}	$u^{47} + 3u^{46} + \cdots - 1940u - 172$
c_{12}	$u^{47} + 63u^{46} + \cdots + 175u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{47} - 18y^{46} + \cdots + 2450y - 625$
c_2, c_6	$y^{47} + 30y^{46} + \cdots + 70y - 25$
c_3	$y^{47} - 66y^{46} + \cdots - 330y - 25$
c_4, c_9	$y^{47} - 21y^{46} + \cdots + 80y - 16$
c_5	$y^{47} - 69y^{46} + \cdots - 112y - 16$
c_7, c_{11}	$y^{47} - 63y^{46} + \cdots + 175y - 1$
c_8	$y^{47} + 15y^{46} + \cdots + 256y - 256$
c_{10}	$y^{47} - 9y^{46} + \cdots + 1462928y - 29584$
c_{12}	$y^{47} - 143y^{46} + \cdots + 12319y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.520853 + 0.848466I$ $a = -1.084380 + 0.109048I$ $b = -0.0925902 + 0.0236889I$	$2.45436 + 5.70987I$	$4.10397 - 7.52673I$
$u = 0.520853 - 0.848466I$ $a = -1.084380 - 0.109048I$ $b = -0.0925902 - 0.0236889I$	$2.45436 - 5.70987I$	$4.10397 + 7.52673I$
$u = -0.954753$ $a = -0.462105$ $b = 1.61809$	-4.77856	-0.0822940
$u = -0.426277 + 0.843973I$ $a = 0.695944 + 0.007832I$ $b = -0.126186 + 0.180791I$	$-0.08833 - 1.82304I$	$-0.21214 + 3.66824I$
$u = -0.426277 - 0.843973I$ $a = 0.695944 - 0.007832I$ $b = -0.126186 - 0.180791I$	$-0.08833 + 1.82304I$	$-0.21214 - 3.66824I$
$u = 0.080676 + 1.062940I$ $a = 2.21302 - 0.62081I$ $b = -1.251550 - 0.323161I$	$-1.26187 + 4.11733I$	$-5.79211 - 3.02419I$
$u = 0.080676 - 1.062940I$ $a = 2.21302 + 0.62081I$ $b = -1.251550 + 0.323161I$	$-1.26187 - 4.11733I$	$-5.79211 + 3.02419I$
$u = -1.065870 + 0.151558I$ $a = -0.220607 - 0.235501I$ $b = 1.73800 - 0.19985I$	$-9.19783 + 7.78492I$	$-3.11194 - 4.36379I$
$u = -1.065870 - 0.151558I$ $a = -0.220607 + 0.235501I$ $b = 1.73800 + 0.19985I$	$-9.19783 - 7.78492I$	$-3.11194 + 4.36379I$
$u = 1.074670 + 0.087030I$ $a = 0.234458 - 0.134402I$ $b = -1.76123 - 0.11585I$	$-11.04170 - 2.07575I$	$-5.37324 + 0.07581I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.074670 - 0.087030I$ $a = 0.234458 + 0.134402I$ $b = -1.76123 + 0.11585I$	$-11.04170 + 2.07575I$	$-5.37324 - 0.07581I$
$u = -0.416939 + 1.002100I$ $a = 1.021110 - 0.519987I$ $b = -0.564053 - 0.373274I$	$-0.35308 - 2.84906I$	$0.14660 + 5.36409I$
$u = -0.416939 - 1.002100I$ $a = 1.021110 + 0.519987I$ $b = -0.564053 + 0.373274I$	$-0.35308 + 2.84906I$	$0.14660 - 5.36409I$
$u = 0.045591 + 1.099550I$ $a = -1.79233 - 0.59931I$ $b = 1.189770 - 0.444997I$	$-3.94139 + 0.69325I$	$-8.93702 - 1.07384I$
$u = 0.045591 - 1.099550I$ $a = -1.79233 + 0.59931I$ $b = 1.189770 + 0.444997I$	$-3.94139 - 0.69325I$	$-8.93702 + 1.07384I$
$u = 0.514947 + 0.719739I$ $a = -0.652546 + 0.529793I$ $b = -0.095652 + 0.345286I$	$2.80273 - 1.43971I$	$4.88073 + 0.31816I$
$u = 0.514947 - 0.719739I$ $a = -0.652546 - 0.529793I$ $b = -0.095652 - 0.345286I$	$2.80273 + 1.43971I$	$4.88073 - 0.31816I$
$u = 0.606629 + 0.637775I$ $a = -0.221188 - 1.122120I$ $b = 1.161630 - 0.221796I$	$-1.182870 + 0.647616I$	$-3.09275 + 0.88493I$
$u = 0.606629 - 0.637775I$ $a = -0.221188 + 1.122120I$ $b = 1.161630 + 0.221796I$	$-1.182870 - 0.647616I$	$-3.09275 - 0.88493I$
$u = -0.091353 + 1.151430I$ $a = 0.063117 - 0.348259I$ $b = -0.154148 + 0.895743I$	$-2.52743 - 2.40559I$	$-6.04313 + 3.27210I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.091353 - 1.151430I$ $a = 0.063117 + 0.348259I$ $b = -0.154148 - 0.895743I$	$-2.52743 + 2.40559I$	$-6.04313 - 3.27210I$
$u = -0.067124 + 0.804789I$ $a = 1.56336 - 1.49824I$ $b = -1.064520 - 0.261047I$	$-0.09852 - 3.64662I$	$-4.05106 + 4.37055I$
$u = -0.067124 - 0.804789I$ $a = 1.56336 + 1.49824I$ $b = -1.064520 + 0.261047I$	$-0.09852 + 3.64662I$	$-4.05106 - 4.37055I$
$u = 0.688119 + 0.988855I$ $a = -0.236313 - 0.766691I$ $b = 1.328370 + 0.259774I$	$-2.22622 + 4.49419I$	$-5.40692 - 5.46385I$
$u = 0.688119 - 0.988855I$ $a = -0.236313 + 0.766691I$ $b = 1.328370 - 0.259774I$	$-2.22622 - 4.49419I$	$-5.40692 + 5.46385I$
$u = -0.586580 + 1.068360I$ $a = 0.267571 - 0.668867I$ $b = -1.138940 + 0.454251I$	$-2.43118 - 0.00318I$	$-6.09049 + 0.I$
$u = -0.586580 - 1.068360I$ $a = 0.267571 + 0.668867I$ $b = -1.138940 - 0.454251I$	$-2.43118 + 0.00318I$	$-6.09049 + 0.I$
$u = 0.290782 + 1.240950I$ $a = -1.325260 - 0.374001I$ $b = 0.985287 - 0.825561I$	$-5.50399 + 3.13913I$	0
$u = 0.290782 - 1.240950I$ $a = -1.325260 + 0.374001I$ $b = 0.985287 + 0.825561I$	$-5.50399 - 3.13913I$	0
$u = -0.377179 + 1.257740I$ $a = 1.235730 - 0.352288I$ $b = -0.848401 - 0.946720I$	$-4.21139 - 8.46222I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.377179-1.257740I$ $a=\ \ 1.235730+0.352288I$ $b=-0.848401+0.946720I$	$-4.21139+8.46222I$	0
$u=-0.672082+0.139197I$ $a=-0.260444-1.022400I$ $b=-0.842370-0.552537I$	$-0.14779-4.58136I$	$-1.59423+6.34344I$
$u=-0.672082-0.139197I$ $a=-0.260444+1.022400I$ $b=-0.842370+0.552537I$	$-0.14779+4.58136I$	$-1.59423-6.34344I$
$u=-0.498424+1.300460I$ $a=-1.83978+1.10496I$ $b=\ \ 1.71077+0.16414I$	$-8.75756-5.17554I$	0
$u=-0.498424-1.300460I$ $a=-1.83978-1.10496I$ $b=\ \ 1.71077-0.16414I$	$-8.75756+5.17554I$	0
$u=-0.505508+0.300306I$ $a=-0.075783+0.611800I$ $b=-0.255894+0.505093I$	$1.57367-0.84058I$	$3.87048+1.10428I$
$u=-0.505508-0.300306I$ $a=-0.075783-0.611800I$ $b=-0.255894-0.505093I$	$1.57367+0.84058I$	$3.87048-1.10428I$
$u=-0.59657+1.30838I$ $a=-1.57480+1.26494I$ $b=\ \ 1.74692+0.35404I$	$-12.7785-13.7242I$	0
$u=-0.59657-1.30838I$ $a=-1.57480-1.26494I$ $b=\ \ 1.74692-0.35404I$	$-12.7785+13.7242I$	0
$u=\ \ 0.56882+1.33488I$ $a=\ \ 1.60835+1.16120I$ $b=-1.79435+0.29240I$	$-14.9238+7.9344I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.56882 - 1.33488I$ $a = 1.60835 - 1.16120I$ $b = -1.79435 - 0.29240I$	$-14.9238 - 7.9344I$	0
$u = -0.40822 + 1.40970I$ $a = -1.72088 + 0.73531I$ $b = 1.88085 - 0.04240I$	$-14.2777 + 2.5683I$	0
$u = -0.40822 - 1.40970I$ $a = -1.72088 - 0.73531I$ $b = 1.88085 + 0.04240I$	$-14.2777 - 2.5683I$	0
$u = 0.46183 + 1.39829I$ $a = 1.68707 + 0.85628I$ $b = -1.88332 + 0.06316I$	$-15.7940 + 3.3870I$	0
$u = 0.46183 - 1.39829I$ $a = 1.68707 - 0.85628I$ $b = -1.88332 - 0.06316I$	$-15.7940 - 3.3870I$	0
$u = 0.336586 + 0.137208I$ $a = 1.14561 - 1.39055I$ $b = 0.822565 - 0.188238I$	$-1.43951 + 0.37029I$	$-6.25580 - 0.44865I$
$u = 0.336586 - 0.137208I$ $a = 1.14561 + 1.39055I$ $b = 0.822565 + 0.188238I$	$-1.43951 - 0.37029I$	$-6.25580 + 0.44865I$

II. $I_2^u = \langle b+1,\ a^4+4a^3u-8a^2u-8a^2+8a+5u,\ u^2+u+1\rangle$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ -u-1 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u \\ u+1 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -1 \\ u+1 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} a \\ -1 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -a^2u-a^2+a+1 \\ au+a-u-2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} au+2a-1 \\ -au+u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -a^3u+a^3+5a^2u+2a^2-3au-5a+1 \\ -a^3u-a^3+a^2u+3a^2+au-2a-u+1 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} a+1 \\ -1 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -a \\ 1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 4a^2u-8au-8a+4u+8$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2	$(u^2 - u + 1)^4$
c_3, c_6	$(u^2 + u + 1)^4$
c_4, c_9	$(u^4 - 2u^2 + 2)^2$
c_5, c_{10}	$(u^4 + 2u^2 + 2)^2$
c_7, c_{12}	$(u + 1)^8$
c_8	$(u^2 + 2u + 2)^4$
c_{11}	$(u - 1)^8$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3 c_6	$(y^2 + y + 1)^4$
c_4, c_9	$(y^2 - 2y + 2)^4$
c_5, c_{10}	$(y^2 + 2y + 2)^4$
c_7, c_{11}, c_{12}	$(y - 1)^8$
c_8	$(y^2 + 4)^4$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.500000+0.866025I$ $a=-0.679033-1.021250I$ $b=-1.00000$	$0.82247-5.69375I$	$-2.00000+7.46410I$
$u=-0.500000+0.866025I$ $a=\ \ 1.223940+0.077436I$ $b=-1.00000$	$0.82247+1.63398I$	$-2.00000-0.53590I$
$u=-0.500000+0.866025I$ $a=\ \ 1.67903-0.71080I$ $b=-1.00000$	$0.82247-5.69375I$	$-2.00000+7.46410I$
$u=-0.500000+0.866025I$ $a=-0.22394-1.80949I$ $b=-1.00000$	$0.82247+1.63398I$	$-2.00000-0.53590I$
$u=-0.500000-0.866025I$ $a=-0.679033+1.021250I$ $b=-1.00000$	$0.82247+5.69375I$	$-2.00000-7.46410I$
$u=-0.500000-0.866025I$ $a=\ \ 1.223940-0.077436I$ $b=-1.00000$	$0.82247-1.63398I$	$-2.00000+0.53590I$
$u=-0.500000-0.866025I$ $a=\ \ 1.67903+0.71080I$ $b=-1.00000$	$0.82247+5.69375I$	$-2.00000-7.46410I$
$u=-0.500000-0.866025I$ $a=-0.22394+1.80949I$ $b=-1.00000$	$0.82247-1.63398I$	$-2.00000+0.53590I$

III. $\boldsymbol{I_3^u = \langle b-1,\ a^3+3a^2u+3au-3a-1,\ u^2-u+1\rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ u-1 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u \\ u-1 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 1 \\ u-1 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} a \\ 1 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} a^2u-a^2-a+1 \\ au-a+u-2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -au+2a+1 \\ au+u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} a^2u-a^2-a-u \\ -a^2u-2au+2a+2 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} a-1 \\ 1 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} a \\ 1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -2a^2u-4au+4a-4u-2$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_3, c_6	$(u^2 - u + 1)^3$
c_2	$(u^2 + u + 1)^3$
c_4, c_5, c_8 c_9, c_{10}	u^6
c_7	$(u - 1)^6$
c_{11}, c_{12}	$(u + 1)^6$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3 c_6	$(y^2 + y + 1)^3$
c_4, c_5, c_8 c_9, c_{10}	y^6
c_7, c_{11}, c_{12}	$(y - 1)^6$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.500000 + 0.866025I$ $a = -0.500000 - 0.866025I$ $b = 1.00000$	$-1.64493 + 2.02988I$	$-6.00000 - 3.46410I$
$u = 0.500000 + 0.866025I$ $a = -0.500000 - 0.866025I$ $b = 1.00000$	$-1.64493 + 2.02988I$	$-6.00000 - 3.46410I$
$u = 0.500000 + 0.866025I$ $a = -0.500000 - 0.866025I$ $b = 1.00000$	$-1.64493 + 2.02988I$	$-6.00000 - 3.46410I$
$u = 0.500000 - 0.866025I$ $a = -0.500000 + 0.866025I$ $b = 1.00000$	$-1.64493 - 2.02988I$	$-6.00000 + 3.46410I$
$u = 0.500000 - 0.866025I$ $a = -0.500000 + 0.866025I$ $b = 1.00000$	$-1.64493 - 2.02988I$	$-6.00000 + 3.46410I$
$u = 0.500000 - 0.866025I$ $a = -0.500000 + 0.866025I$ $b = 1.00000$	$-1.64493 - 2.02988I$	$-6.00000 + 3.46410I$

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u^2-u+1)^7)(u^{47}+30u^{46}+\cdots+70u-25)$
c_2	$((u^2-u+1)^4)(u^2+u+1)^3(u^{47}-2u^{46}+\cdots+7u^2-5)$
c_3	$((u^2-u+1)^3)(u^2+u+1)^4(u^{47}+2u^{46}+\cdots+20u-5)$
c_4, c_9	$u^6(u^4-2u^2+2)^2(u^{47}+u^{46}+\cdots+12u+4)$
c_5	$u^6(u^4+2u^2+2)^2(u^{47}-u^{46}+\cdots+36u+4)$
c_6	$((u^2-u+1)^3)(u^2+u+1)^4(u^{47}-2u^{46}+\cdots+7u^2-5)$
c_7	$((u-1)^6)(u+1)^8(u^{47}+3u^{46}+\cdots-29u+1)$
c_8	$u^6(u^2+2u+2)^4(u^{47}-21u^{46}+\cdots+80u-16)$
c_{10}	$u^6(u^4+2u^2+2)^2(u^{47}+3u^{46}+\cdots-1940u-172)$
c_{11}	$((u-1)^8)(u+1)^6(u^{47}+3u^{46}+\cdots-29u+1)$
c_{12}	$((u+1)^{14})(u^{47}+63u^{46}+\cdots+175u+1)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y^2+y+1)^7)(y^{47}-18y^{46}+\cdots+2450y-625)$
c_2, c_6	$((y^2+y+1)^7)(y^{47}+30y^{46}+\cdots+70y-25)$
c_3	$((y^2+y+1)^7)(y^{47}-66y^{46}+\cdots-330y-25)$
c_4, c_9	$y^6(y^2-2y+2)^4(y^{47}-21y^{46}+\cdots+80y-16)$
c_5	$y^6(y^2+2y+2)^4(y^{47}-69y^{46}+\cdots-112y-16)$
c_7, c_{11}	$((y-1)^{14})(y^{47}-63y^{46}+\cdots+175y-1)$
c_8	$y^6(y^2+4)^4(y^{47}+15y^{46}+\cdots+256y-256)$
c_{10}	$y^6(y^2+2y+2)^4(y^{47}-9y^{46}+\cdots+1462928y-29584)$
c_{12}	$((y-1)^{14})(y^{47}-143y^{46}+\cdots+12319y-1)$