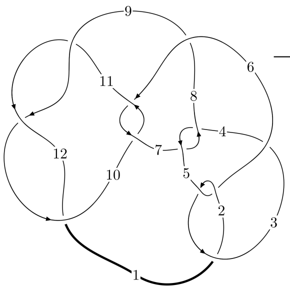
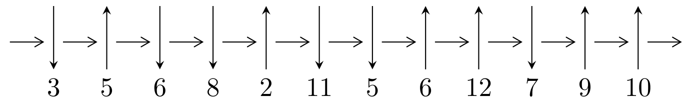
$12n_{0007}$ ($K12n_{0007}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u = \langle &-9.22578 \times 10^{81} u^{32} + 2.64829 \times 10^{82} u^{31} + \cdots + 1.74190 \times 10^{85} b + 7.65657 \times 10^{83},\\
&1.64277 \times 10^{83} u^{32} - 4.01664 \times 10^{83} u^{31} + \cdots + 6.96761 \times 10^{85} a - 2.63055 \times 10^{86},\\
&u^{33} - 2u^{32} + \cdots - 1024u^2 + 1024\rangle\\
I_2^u = \langle &b,\ -2u^3 - u^2 + a - 5u - 1,\ u^4 + u^3 + 3u^2 + 2u + 1\rangle
\end{aligned}$$

$$\begin{aligned}
I_1^v = \langle &a,\ -152v^9 + 36v^8 - 216v^7 + 881v^6 - 468v^5 + 684v^4 - 1376v^3 + 252v^2 + 115b - 144v + 219,\\
&v^{10} - v^9 + 2v^8 - 7v^7 + 8v^6 - 9v^5 + 14v^4 - 10v^3 + 5v^2 - 3v + 1\rangle
\end{aligned}$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 47 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. $\boldsymbol{I_1^u = \langle -9.23 \times 10^{81} u^{32} + 2.65 \times 10^{82} u^{31} + \cdots + 1.74 \times 10^{85} b + 7.66 \times 10^{83},\ 1.64 \times 10^{83} u^{32} - 4.02 \times 10^{83} u^{31} + \cdots + 6.97 \times 10^{85} a - 2.63 \times 10^{86},\ u^{33} - 2u^{32} + \cdots - 1024u^2 + 1024 \rangle}$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

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

$$a_4 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.00235772u^{32} + 0.00576474u^{31} + \cdots - 1.78671u + 3.77540 \\ 0.000529638u^{32} - 0.00152034u^{31} + \cdots + 1.75463u - 0.0439552 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.00161857u^{32} - 0.00336873u^{31} + \cdots - 4.32267u + 2.88182 \\ -0.000754427u^{32} + 0.00172427u^{31} + \cdots + 0.455492u - 1.26583 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.000947588u^{32} - 0.00205444u^{31} + \cdots - 0.758148u + 2.00893 \\ 0.000267518u^{32} - 0.000630392u^{31} + \cdots + 0.294022u + 0.443178 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.00169931u^{32} + 0.00435099u^{31} + \cdots - 3.09719u + 4.67643 \\ 0.000267518u^{32} - 0.000630392u^{31} + \cdots + 0.294022u + 0.443178 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -0.00169705u^{32} + 0.00482151u^{31} + \cdots + 0.535570u - 2.78065 \\ -0.000159267u^{32} + 0.000118296u^{31} + \cdots + 2.00893u - 0.970330 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.00169705u^{32} + 0.00482151u^{31} + \cdots + 0.535570u - 2.78065 \\ 0.0000201791u^{32} - 0.000817233u^{31} + \cdots + 3.74671u - 2.43201 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.00167929u^{32} + 0.00313362u^{31} + \cdots + 6.43558u - 4.28239 \\ -0.0000607181u^{32} - 0.000235106u^{31} + \cdots + 2.11291u - 1.40057 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.00182808u^{32} + 0.00424440u^{31} + \cdots - 0.0320791u + 3.73144 \\ 0.000529638u^{32} - 0.00152034u^{31} + \cdots + 1.75463u - 0.0439552 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.00699839u^{32} + 0.0259705u^{31} + \cdots - 24.8101u + 1.26303$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{33} + 5u^{32} + \cdots + 3u - 1$
c_2, c_5	$u^{33} + 7u^{32} + \cdots + 5u + 1$
c_3	$u^{33} - 7u^{32} + \cdots - 29960u + 14308$
c_4, c_7	$u^{33} - 2u^{32} + \cdots - 1024u^2 + 1024$
c_6, c_{10}	$u^{33} + 3u^{32} + \cdots + 56u - 16$
c_8	$u^{33} + 4u^{32} + \cdots + 2u + 1$
c_9, c_{11}, c_{12}	$u^{33} + 7u^{32} + \cdots + 4u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{33} + 53y^{32} + \cdots + 3y - 1$
c_2, c_5	$y^{33} + 5y^{32} + \cdots + 3y - 1$
c_3	$y^{33} + 101y^{32} + \cdots + 162370712y - 204718864$
c_4, c_7	$y^{33} + 60y^{32} + \cdots + 2097152y - 1048576$
c_6, c_{10}	$y^{33} + 33y^{32} + \cdots - 2496y - 256$
c_8	$y^{33} - 62y^{32} + \cdots - 26y - 1$
c_9, c_{11}, c_{12}	$y^{33} - 39y^{32} + \cdots - 124y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.736102 + 0.542727I$ $a = -0.637804 - 0.145676I$ $b = -0.263754 + 1.251930I$	$4.58725 + 2.79647I$	$1.21032 - 3.36441I$
$u = -0.736102 - 0.542727I$ $a = -0.637804 + 0.145676I$ $b = -0.263754 - 1.251930I$	$4.58725 - 2.79647I$	$1.21032 + 3.36441I$
$u = 0.624216 + 0.614071I$ $a = -0.451815 - 0.151872I$ $b = -0.581770 + 1.231250I$	$6.44848 + 5.59696I$	$6.32857 - 1.76937I$
$u = 0.624216 - 0.614071I$ $a = -0.451815 + 0.151872I$ $b = -0.581770 - 1.231250I$	$6.44848 - 5.59696I$	$6.32857 + 1.76937I$
$u = 0.296890 + 0.749665I$ $a = -0.46200 - 1.54808I$ $b = -0.396918 + 0.657378I$	$2.07164 - 0.96578I$	$7.05787 - 0.04324I$
$u = 0.296890 - 0.749665I$ $a = -0.46200 + 1.54808I$ $b = -0.396918 - 0.657378I$	$2.07164 + 0.96578I$	$7.05787 + 0.04324I$
$u = -0.479019 + 0.528772I$ $a = 2.34330 + 1.85274I$ $b = 0.056157 - 0.749682I$	$1.16540 - 2.90676I$	$5.52935 + 0.45206I$
$u = -0.479019 - 0.528772I$ $a = 2.34330 - 1.85274I$ $b = 0.056157 + 0.749682I$	$1.16540 + 2.90676I$	$5.52935 - 0.45206I$
$u = 0.639723 + 0.300028I$ $a = 0.463444 + 0.633798I$ $b = 0.345995 - 0.989797I$	$0.62465 + 2.03384I$	$1.49443 - 2.77231I$
$u = 0.639723 - 0.300028I$ $a = 0.463444 - 0.633798I$ $b = 0.345995 + 0.989797I$	$0.62465 - 2.03384I$	$1.49443 + 2.77231I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.680743$ $a = -1.22755$ $b = -0.999659$	2.80941	2.91480
$u = -0.445593 + 0.510958I$ $a = 0.788593 + 0.405247I$ $b = 0.389650 - 0.507994I$	$-0.634147 + 1.259730I$	$-4.30303 - 4.77679I$
$u = -0.445593 - 0.510958I$ $a = 0.788593 - 0.405247I$ $b = 0.389650 + 0.507994I$	$-0.634147 - 1.259730I$	$-4.30303 + 4.77679I$
$u = -0.304293 + 0.498677I$ $a = 1.074760 - 0.330459I$ $b = -0.237073 - 0.267230I$	$-0.29538 + 1.55166I$	$-2.33060 - 5.33546I$
$u = -0.304293 - 0.498677I$ $a = 1.074760 + 0.330459I$ $b = -0.237073 + 0.267230I$	$-0.29538 - 1.55166I$	$-2.33060 + 5.33546I$
$u = 0.529499 + 0.187441I$ $a = 4.29355 - 1.67102I$ $b = 0.312701 + 0.419841I$	$1.84801 - 1.60722I$	$0.8190 + 15.0118I$
$u = 0.529499 - 0.187441I$ $a = 4.29355 + 1.67102I$ $b = 0.312701 - 0.419841I$	$1.84801 + 1.60722I$	$0.8190 - 15.0118I$
$u = -0.10031 + 1.67720I$ $a = -0.0503517 - 0.0297636I$ $b = -0.604916 + 0.020460I$	$7.91587 + 3.25842I$	0
$u = -0.10031 - 1.67720I$ $a = -0.0503517 + 0.0297636I$ $b = -0.604916 - 0.020460I$	$7.91587 - 3.25842I$	0
$u = -0.85403 + 1.58938I$ $a = -0.454673 - 0.911109I$ $b = 0.21829 + 1.69561I$	$9.42003 - 4.56175I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.85403 - 1.58938I$ $a = -0.454673 + 0.911109I$ $b = 0.21829 - 1.69561I$	$9.42003 + 4.56175I$	0
$u = 1.61914 + 1.36310I$ $a = -0.415764 + 0.566639I$ $b = -0.06793 - 1.82415I$	$11.88220 - 1.87850I$	0
$u = 1.61914 - 1.36310I$ $a = -0.415764 - 0.566639I$ $b = -0.06793 + 1.82415I$	$11.88220 + 1.87850I$	0
$u = 0.47200 + 2.29182I$ $a = -0.313254 + 1.103940I$ $b = -0.34561 - 1.60946I$	$13.8782 - 7.1833I$	0
$u = 0.47200 - 2.29182I$ $a = -0.313254 - 1.103940I$ $b = -0.34561 + 1.60946I$	$13.8782 + 7.1833I$	0
$u = 0.91656 + 2.15918I$ $a = 0.567229 - 0.874265I$ $b = 0.84459 + 1.62798I$	$-18.3854 - 12.6657I$	0
$u = 0.91656 - 2.15918I$ $a = 0.567229 + 0.874265I$ $b = 0.84459 - 1.62798I$	$-18.3854 + 12.6657I$	0
$u = 0.01301 + 2.40418I$ $a = -0.078585 - 1.110070I$ $b = -0.18185 + 1.65385I$	$14.1748 - 0.2842I$	0
$u = 0.01301 - 2.40418I$ $a = -0.078585 + 1.110070I$ $b = -0.18185 - 1.65385I$	$14.1748 + 0.2842I$	0
$u = -0.27091 + 2.43864I$ $a = 0.0842297 + 0.0547107I$ $b = 1.72368 + 0.09458I$	$16.4290 + 3.7881I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.27091 - 2.43864I$ $a = 0.0842297 - 0.0547107I$ $b = 1.72368 - 0.09458I$	$16.4290 - 3.7881I$	0
$u = -0.58040 + 2.51179I$ $a = 0.362910 + 0.854969I$ $b = 0.78859 - 1.76638I$	$-17.4300 + 5.1499I$	0
$u = -0.58040 - 2.51179I$ $a = 0.362910 - 0.854969I$ $b = 0.78859 + 1.76638I$	$-17.4300 - 5.1499I$	0

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

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -8u^3 - 11u^2 - 22u - 11$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4	$u^4 - u^3 + 3u^2 - 2u + 1$
c_2	$u^4 - u^3 + u^2 + 1$
c_3	$u^4 + u^3 + 5u^2 - u + 2$
c_5	$u^4 + u^3 + u^2 + 1$
c_6, c_{10}	u^4
c_7	$u^4 + u^3 + 3u^2 + 2u + 1$
c_8	$u^4 - 5u^3 + 7u^2 - 2u + 1$
c_9	$(u + 1)^4$
c_{11}, c_{12}	$(u - 1)^4$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4, c_7	$y^4 + 5y^3 + 7y^2 + 2y + 1$
c_2, c_5	$y^4 + y^3 + 3y^2 + 2y + 1$
c_3	$y^4 + 9y^3 + 31y^2 + 19y + 4$
c_6, c_{10}	y^4
c_8	$y^4 - 11y^3 + 31y^2 + 10y + 1$
c_9, c_{11}, c_{12}	$(y-1)^4$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.395123 + 0.506844I$ $a = -0.59074 + 2.34806I$ $b = 0$	$1.43393 + 1.41510I$	$-3.14142 - 7.60220I$
$u = -0.395123 - 0.506844I$ $a = -0.59074 - 2.34806I$ $b = 0$	$1.43393 - 1.41510I$	$-3.14142 + 7.60220I$
$u = -0.10488 + 1.55249I$ $a = -0.409261 + 0.055548I$ $b = 0$	$8.43568 + 3.16396I$	$11.64142 - 1.04769I$
$u = -0.10488 - 1.55249I$ $a = -0.409261 - 0.055548I$ $b = 0$	$8.43568 - 3.16396I$	$11.64142 + 1.04769I$

III. $I_1^v = \langle a,\ -152v^9 + 36v^8 + \cdots + 115b + 219,\ v^{10} - v^9 + \cdots - 3v + 1\rangle$

(i) Arc colorings

$$a_5 = \begin{pmatrix} v \\ 0 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} v \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0 \\ 1.32174v^9 - 0.313043v^8 + \cdots + 1.25217v - 1.90435 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ 1.35652v^9 - 0.373913v^8 + \cdots + 1.49565v - 0.191304 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -1.35652v^9 + 0.373913v^8 + \cdots - 1.49565v + 1.19130 \\ -3.19130v^9 + 0.834783v^8 + \cdots - 3.33913v + 3.07826 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -1.83478v^9 + 0.460870v^8 + \cdots - 1.84348v + 1.88696 \\ -3.19130v^9 + 0.834783v^8 + \cdots - 3.33913v + 3.07826 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -0.982609v^9 + 0.469565v^8 + \cdots - 2.87826v + 1.35652 \\ -2.35652v^9 + 1.37391v^8 + \cdots - 6.49565v + 3.19130 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -0.469565v^9 + 0.321739v^8 + \cdots - 2.28696v + 0.373913 \\ -2.35652v^9 + 1.37391v^8 + \cdots - 6.49565v + 3.19130 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -1 \\ -1.35652v^9 + 0.373913v^8 + \cdots - 1.49565v + 0.191304 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1.32174v^9 - 0.313043v^8 + \cdots + 1.25217v - 1.90435 \\ 1.32174v^9 - 0.313043v^8 + \cdots + 1.25217v - 1.90435 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes
$= -\frac{281}{115}v^9 + \frac{118}{115}v^8 - \frac{363}{115}v^7 + \frac{1693}{115}v^6 - \frac{959}{115}v^5 + \frac{977}{115}v^4 - \frac{2683}{115}v^3 + \frac{251}{115}v^2 + \frac{793}{115}v + \frac{622}{115}$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3 c_5	$(y^2 + y + 1)^5$
c_4, c_7	y^{10}
c_6, c_{10}	$(y^5 + 3y^4 + 4y^3 + y^2 - y - 1)^2$
c_8	$(y^5 - y^4 + 8y^3 - 3y^2 + 3y - 1)^2$
c_9, c_{11}, c_{12}	$(y^5 - 5y^4 + 8y^3 - 3y^2 - y - 1)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^v	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$v = 1.219640 + 0.330957I$ $a = 0$ $b = 0.339110 - 0.822375I$	$0.329100 - 0.499304I$	$2.43337 - 0.47576I$
$v = 1.219640 - 0.330957I$ $a = 0$ $b = 0.339110 + 0.822375I$	$0.329100 + 0.499304I$	$2.43337 + 0.47576I$
$v = -0.323203 + 1.221720I$ $a = 0$ $b = 0.339110 + 0.822375I$	$0.32910 - 3.56046I$	$-1.41726 + 7.41465I$
$v = -0.323203 - 1.221720I$ $a = 0$ $b = 0.339110 - 0.822375I$	$0.32910 + 3.56046I$	$-1.41726 - 7.41465I$
$v = 0.575710 + 0.191698I$ $a = 0$ $b = -0.455697 + 1.200150I$	$5.87256 + 2.37095I$	$7.21285 - 1.44195I$
$v = 0.575710 - 0.191698I$ $a = 0$ $b = -0.455697 - 1.200150I$	$5.87256 - 2.37095I$	$7.21285 + 1.44195I$
$v = -0.121840 + 0.594429I$ $a = 0$ $b = -0.455697 - 1.200150I$	$5.87256 - 6.43072I$	$1.90884 + 7.88634I$
$v = -0.121840 - 0.594429I$ $a = 0$ $b = -0.455697 + 1.200150I$	$5.87256 + 6.43072I$	$1.90884 - 7.88634I$
$v = -0.85031 + 1.47278I$ $a = 0$ $b = -0.766826$	$2.40108 + 2.02988I$	$-0.13779 - 5.66929I$
$v = -0.85031 - 1.47278I$ $a = 0$ $b = -0.766826$	$2.40108 - 2.02988I$	$-0.13779 + 5.66929I$

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u^2-u+1)^5)(u^4-u^3+3u^2-2u+1)(u^{33}+5u^{32}+\cdots+3u-1)$
c_2	$((u^2+u+1)^5)(u^4-u^3+u^2+1)(u^{33}+7u^{32}+\cdots+5u+1)$
c_3	$(u^2-u+1)^5(u^4+u^3+5u^2-u+2)$ $\cdot(u^{33}-7u^{32}+\cdots-29960u+14308)$
c_4	$u^{10}(u^4-u^3+3u^2-2u+1)(u^{33}-2u^{32}+\cdots-1024u^2+1024)$
c_5	$((u^2-u+1)^5)(u^4+u^3+u^2+1)(u^{33}+7u^{32}+\cdots+5u+1)$
c_6	$u^4(u^5+u^4+\cdots+u+1)^2(u^{33}+3u^{32}+\cdots+56u-16)$
c_7	$u^{10}(u^4+u^3+3u^2+2u+1)(u^{33}-2u^{32}+\cdots-1024u^2+1024)$
c_8	$(u^4-5u^3+7u^2-2u+1)(u^5-3u^4+4u^3-u^2-u+1)^2$ $\cdot(u^{33}+4u^{32}+\cdots+2u+1)$
c_9	$((u+1)^4)(u^5-u^4+\cdots+u+1)^2(u^{33}+7u^{32}+\cdots+4u-1)$
c_{10}	$u^4(u^5-u^4+\cdots+u-1)^2(u^{33}+3u^{32}+\cdots+56u-16)$
c_{11}, c_{12}	$((u-1)^4)(u^5+u^4+\cdots+u-1)^2(u^{33}+7u^{32}+\cdots+4u-1)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y^2+y+1)^5)(y^4+5y^3+\cdots+2y+1)(y^{33}+53y^{32}+\cdots+3y-1)$
c_2, c_5	$((y^2+y+1)^5)(y^4+y^3+3y^2+2y+1)(y^{33}+5y^{32}+\cdots+3y-1)$
c_3	$(y^2+y+1)^5(y^4+9y^3+31y^2+19y+4)$ $\cdot(y^{33}+101y^{32}+\cdots+162370712y-204718864)$
c_4, c_7	$y^{10}(y^4+5y^3+\cdots+2y+1)(y^{33}+60y^{32}+\cdots+2097152y-1048576)$
c_6, c_{10}	$y^4(y^5+3y^4+\cdots-y-1)^2(y^{33}+33y^{32}+\cdots-2496y-256)$
c_8	$(y^4-11y^3+31y^2+10y+1)(y^5-y^4+8y^3-3y^2+3y-1)^2$ $\cdot(y^{33}-62y^{32}+\cdots-26y-1)$
c_9, c_{11}, c_{12}	$(y-1)^4(y^5-5y^4+8y^3-3y^2-y-1)^2$ $\cdot(y^{33}-39y^{32}+\cdots-124y-1)$