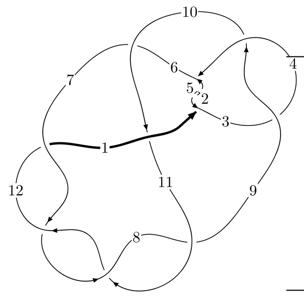
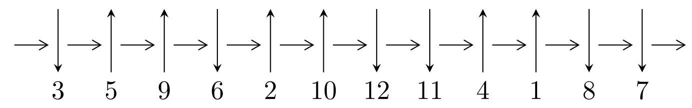
$12a_{0176}$ ($K12a_{0176}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle 93u^{72} - 418u^{71} + \cdots + 8b - 68,\ -11u^{72} + 5u^{71} + \cdots + 8a - 35,\ u^{73} - 5u^{72} + \cdots - 7u + 1\rangle$$
$$I_2^u = \langle -au + b - a,\ a^4 - a^3u - a^2u - a^2 + u,\ u^2 + u + 1\rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 81 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. $I_1^u = \langle 93u^{72} - 418u^{71} + \cdots + 8b - 68,\ -11u^{72} + 5u^{71} + \cdots + 8a - 35,\ u^{73} - 5u^{72} + \cdots - 7u + 1\rangle$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} \frac{11}{8}u^{72} - \frac{5}{8}u^{71} + \cdots - \frac{269}{8}u + \frac{35}{8} \\ -11.6250u^{72} + 52.2500u^{71} + \cdots - 60.3750u + 8.50000 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -\frac{1}{8}u^{72} + \frac{1}{2}u^{71} + \cdots - \frac{1}{8}u - 1 \\ -\frac{1}{8}u^{71} + \frac{1}{2}u^{70} + \cdots + \frac{11}{4}u - \frac{1}{8} \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^2 + 1 \\ -u^4 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} \frac{11}{2}u^{72} + 4u^{71} + \cdots - \frac{229}{2}u + \frac{37}{2} \\ -26.5000u^{72} + 137.875u^{71} + \cdots - 219.250u + 33.6250 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} u^3 \\ u^3 + u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 3.37500u^{72} + 8.12500u^{71} + \cdots - 101.625u + 16.1250 \\ -23.8750u^{72} + 120.500u^{71} + \cdots - 179.625u + 27.2500 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -1.37500u^{72} + 16.1250u^{71} + \cdots - 58.8750u + 8.62500 \\ -\frac{101}{8}u^{72} + \frac{243}{4}u^{71} + \cdots - \frac{677}{8}u + 13 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} \frac{7}{4}u^{72} - \frac{37}{4}u^{71} + \cdots + \frac{37}{2}u - \frac{3}{2} \\ \frac{21}{8}u^{72} - \frac{89}{8}u^{71} + \cdots + \frac{63}{8}u - \frac{7}{8} \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -\frac{139}{8}u^{72} + \frac{339}{4}u^{71} + \cdots - \frac{861}{8}u + \frac{73}{4}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4	$u^{73} + 23u^{72} + \cdots - 7u - 1$
c_2, c_5	$u^{73} + 5u^{72} + \cdots - 7u - 1$
c_3, c_9	$u^{73} + u^{72} + \cdots - 384u - 256$
c_6	$u^{73} - 3u^{72} + \cdots + 1455u - 1009$
c_7, c_8, c_{11} c_{12}	$u^{73} - 3u^{72} + \cdots + 5u - 1$
c_{10}	$u^{73} + 21u^{72} + \cdots + 34585u + 3971$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4	$y^{73} + 59y^{72} + \cdots - 779y - 1$
c_2, c_5	$y^{73} + 23y^{72} + \cdots - 7y - 1$
c_3, c_9	$y^{73} - 45y^{72} + \cdots + 638976y - 65536$
c_6	$y^{73} - 39y^{72} + \cdots - 96349267y - 1018081$
c_7, c_8, c_{11} c_{12}	$y^{73} + 85y^{72} + \cdots - 11y - 1$
c_{10}	$y^{73} - 19y^{72} + \cdots + 205103581y - 15768841$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.061031 + 0.988224I$ $a = 0.443695 - 0.459047I$ $b = -0.724621 - 0.580258I$	$3.27771 - 2.37789I$	0
$u = -0.061031 - 0.988224I$ $a = 0.443695 + 0.459047I$ $b = -0.724621 + 0.580258I$	$3.27771 + 2.37789I$	0
$u = -0.225938 + 1.037910I$ $a = 0.166934 - 0.176912I$ $b = 0.821680 + 0.445687I$	$-1.40695 - 2.98844I$	0
$u = -0.225938 - 1.037910I$ $a = 0.166934 + 0.176912I$ $b = 0.821680 - 0.445687I$	$-1.40695 + 2.98844I$	0
$u = -0.518783 + 0.940844I$ $a = 0.323471 + 0.705744I$ $b = 0.015920 + 0.894645I$	$-0.10046 - 2.66980I$	0
$u = -0.518783 - 0.940844I$ $a = 0.323471 - 0.705744I$ $b = 0.015920 - 0.894645I$	$-0.10046 + 2.66980I$	0
$u = 0.715152 + 0.803648I$ $a = 1.139520 + 0.387119I$ $b = 0.640803 - 1.009380I$	$8.18684 - 1.63882I$	0
$u = 0.715152 - 0.803648I$ $a = 1.139520 - 0.387119I$ $b = 0.640803 + 1.009380I$	$8.18684 + 1.63882I$	0
$u = -0.373664 + 1.042010I$ $a = -0.819992 - 0.035159I$ $b = -0.890346 - 0.754074I$	$1.042010 - 0.690934I$	0
$u = -0.373664 - 1.042010I$ $a = -0.819992 + 0.035159I$ $b = -0.890346 + 0.754074I$	$1.042010 + 0.690934I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = \ \ 0.717261 + 0.854752I$ $a = -0.819762 + 0.064738I$ $b = -0.019915 + 1.100780I$	$1.69272 + 0.80380I$	0
$u = \ \ 0.717261 - 0.854752I$ $a = -0.819762 - 0.064738I$ $b = -0.019915 - 1.100780I$	$1.69272 - 0.80380I$	0
$u = -0.751631 + 0.827950I$ $a = \ \ 1.75700 - 1.36118I$ $b = \ \ 2.26394 - 0.53802I$	$3.44600 + 0.21774I$	0
$u = -0.751631 - 0.827950I$ $a = \ \ 1.75700 + 1.36118I$ $b = \ \ 2.26394 + 0.53802I$	$3.44600 - 0.21774I$	0
$u = -0.703331 + 0.876144I$ $a = -1.12934 + 1.54579I$ $b = -1.74415 + 1.00598I$	$1.23434 - 2.69793I$	0
$u = -0.703331 - 0.876144I$ $a = -1.12934 - 1.54579I$ $b = -1.74415 - 1.00598I$	$1.23434 + 2.69793I$	0
$u = -0.231481 + 1.101900I$ $a = -0.179153 + 0.561689I$ $b = -0.892539 - 0.338296I$	$0.16539 - 6.33155I$	0
$u = -0.231481 - 1.101900I$ $a = -0.179153 - 0.561689I$ $b = -0.892539 + 0.338296I$	$0.16539 + 6.33155I$	0
$u = \ \ 0.854843 + 0.737463I$ $a = -0.97759 - 1.56121I$ $b = -1.53845 - 0.36332I$	$5.77476 - 2.35899I$	0
$u = \ \ 0.854843 - 0.737463I$ $a = -0.97759 + 1.56121I$ $b = -1.53845 + 0.36332I$	$5.77476 + 2.35899I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.877139 + 0.718077I$ $a = 1.13328 + 1.73513I$ $b = 1.86444 + 0.47628I$	$7.65392 - 6.17000I$	0
$u = 0.877139 - 0.718077I$ $a = 1.13328 - 1.73513I$ $b = 1.86444 - 0.47628I$	$7.65392 + 6.17000I$	0
$u = -0.011705 + 0.860688I$ $a = -0.052223 + 0.967136I$ $b = 0.932645 + 0.558548I$	$-2.42316 - 0.99351I$	$-5.92732 + 3.87741I$
$u = -0.011705 - 0.860688I$ $a = -0.052223 - 0.967136I$ $b = 0.932645 - 0.558548I$	$-2.42316 + 0.99351I$	$-5.92732 - 3.87741I$
$u = -0.789311 + 0.824660I$ $a = -2.12466 + 1.44766I$ $b = -2.66983 + 0.45270I$	$11.52080 + 2.07129I$	0
$u = -0.789311 - 0.824660I$ $a = -2.12466 - 1.44766I$ $b = -2.66983 - 0.45270I$	$11.52080 - 2.07129I$	0
$u = 0.897183 + 0.709153I$ $a = -1.23173 - 1.88439I$ $b = -2.09388 - 0.61056I$	$15.7401 - 8.6060I$	0
$u = 0.897183 - 0.709153I$ $a = -1.23173 + 1.88439I$ $b = -2.09388 + 0.61056I$	$15.7401 + 8.6060I$	0
$u = 0.715229 + 0.893228I$ $a = 0.536474 - 0.487123I$ $b = -0.499667 - 1.216460I$	$1.57244 + 4.67543I$	0
$u = 0.715229 - 0.893228I$ $a = 0.536474 + 0.487123I$ $b = -0.499667 + 1.216460I$	$1.57244 - 4.67543I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.858736 + 0.779751I$ $a = 0.60446 + 1.54193I$ $b = 1.076970 + 0.610092I$	$8.88013 + 0.82331I$	0
$u = 0.858736 - 0.779751I$ $a = 0.60446 - 1.54193I$ $b = 1.076970 - 0.610092I$	$8.88013 - 0.82331I$	0
$u = -0.587723 + 1.000390I$ $a = -0.51702 - 1.42783I$ $b = 0.17444 - 1.64638I$	$6.38689 - 3.34175I$	0
$u = -0.587723 - 1.000390I$ $a = -0.51702 + 1.42783I$ $b = 0.17444 + 1.64638I$	$6.38689 + 3.34175I$	0
$u = -0.236324 + 1.136820I$ $a = 0.216812 - 0.826663I$ $b = 0.952968 + 0.243595I$	$8.01784 - 8.50189I$	0
$u = -0.236324 - 1.136820I$ $a = 0.216812 + 0.826663I$ $b = 0.952968 - 0.243595I$	$8.01784 + 8.50189I$	0
$u = -0.642269 + 0.533189I$ $a = 1.44113 + 0.31196I$ $b = 0.909868 + 0.853465I$	$7.73992 - 1.45409I$	$7.03228 + 2.97950I$
$u = -0.642269 - 0.533189I$ $a = 1.44113 - 0.31196I$ $b = 0.909868 - 0.853465I$	$7.73992 + 1.45409I$	$7.03228 - 2.97950I$
$u = -0.386720 + 1.102060I$ $a = 1.151370 - 0.153712I$ $b = 1.145290 + 0.823796I$	$8.94434 + 0.93346I$	0
$u = -0.386720 - 1.102060I$ $a = 1.151370 + 0.153712I$ $b = 1.145290 - 0.823796I$	$8.94434 - 0.93346I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.161589 + 0.815556I$ $a = 0.08027 + 1.73701I$ $b = 1.38565 + 0.62057I$	$5.75319 + 4.41448I$	$0.071981 - 1.204152I$
$u = 0.161589 - 0.815556I$ $a = 0.08027 - 1.73701I$ $b = 1.38565 - 0.62057I$	$5.75319 - 4.41448I$	$0.071981 + 1.204152I$
$u = 0.709045 + 0.936655I$ $a = -0.200425 + 1.044420I$ $b = 1.10352 + 1.40660I$	$7.77191 + 7.10200I$	0
$u = 0.709045 - 0.936655I$ $a = -0.200425 - 1.044420I$ $b = 1.10352 - 1.40660I$	$7.77191 - 7.10200I$	0
$u = 0.085563 + 0.820766I$ $a = -0.030152 - 1.397210I$ $b = -1.154110 - 0.576548I$	$-1.57706 + 2.30309I$	$-2.80955 - 3.48929I$
$u = 0.085563 - 0.820766I$ $a = -0.030152 + 1.397210I$ $b = -1.154110 + 0.576548I$	$-1.57706 - 2.30309I$	$-2.80955 + 3.48929I$
$u = -0.736971 + 0.917281I$ $a = 1.16448 - 2.10961I$ $b = 2.02664 - 1.52743I$	$3.17218 - 5.86940I$	0
$u = -0.736971 - 0.917281I$ $a = 1.16448 + 2.10961I$ $b = 2.02664 + 1.52743I$	$3.17218 + 5.86940I$	0
$u = -0.810712 + 0.097990I$ $a = -0.550183 - 0.371106I$ $b = 1.117360 - 0.604474I$	$12.19710 - 5.07416I$	$9.95336 + 3.32776I$
$u = -0.810712 - 0.097990I$ $a = -0.550183 + 0.371106I$ $b = 1.117360 + 0.604474I$	$12.19710 + 5.07416I$	$9.95336 - 3.32776I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.885484 + 0.802555I$ $a = -0.31616 - 1.77942I$ $b = -0.904553 - 1.071020I$	$17.5514 + 2.3531I$	0
$u = 0.885484 - 0.802555I$ $a = -0.31616 + 1.77942I$ $b = -0.904553 + 1.071020I$	$17.5514 - 2.3531I$	0
$u = -0.440972 + 0.666613I$ $a = -0.915006 - 0.235271I$ $b = -0.765196 - 0.346372I$	$0.70719 - 1.37392I$	$6.54862 + 4.55339I$
$u = -0.440972 - 0.666613I$ $a = -0.915006 + 0.235271I$ $b = -0.765196 + 0.346372I$	$0.70719 + 1.37392I$	$6.54862 - 4.55339I$
$u = -0.760835 + 0.932568I$ $a = -1.29393 + 2.43000I$ $b = -2.28636 + 1.77924I$	$11.18770 - 7.91039I$	0
$u = -0.760835 - 0.932568I$ $a = -1.29393 - 2.43000I$ $b = -2.28636 - 1.77924I$	$11.18770 + 7.91039I$	0
$u = -0.753565 + 0.082487I$ $a = 0.721227 + 0.258241I$ $b = -0.834537 + 0.418462I$	$4.10320 - 3.11301I$	$8.46380 + 5.00455I$
$u = -0.753565 - 0.082487I$ $a = 0.721227 - 0.258241I$ $b = -0.834537 - 0.418462I$	$4.10320 + 3.11301I$	$8.46380 - 5.00455I$
$u = 0.782341 + 0.985456I$ $a = 1.20777 + 0.80647I$ $b = 2.05755 + 0.44861I$	$8.23968 + 5.28180I$	0
$u = 0.782341 - 0.985456I$ $a = 1.20777 - 0.80647I$ $b = 2.05755 - 0.44861I$	$8.23968 - 5.28180I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.761516 + 1.008750I$ $a = -1.23045 - 1.35600I$ $b = -2.34331 - 0.87664I$	$4.93630 + 8.38429I$	0
$u = 0.761516 - 1.008750I$ $a = -1.23045 + 1.35600I$ $b = -2.34331 + 0.87664I$	$4.93630 - 8.38429I$	0
$u = 0.811502 + 0.986113I$ $a = -1.56384 - 0.43043I$ $b = -2.16930 + 0.04197I$	$16.9773 + 3.9268I$	0
$u = 0.811502 - 0.986113I$ $a = -1.56384 + 0.43043I$ $b = -2.16930 - 0.04197I$	$16.9773 - 3.9268I$	0
$u = 0.764032 + 1.027340I$ $a = 1.48760 + 1.57665I$ $b = 2.64607 + 0.93109I$	$6.69651 + 12.26470I$	0
$u = 0.764032 - 1.027340I$ $a = 1.48760 - 1.57665I$ $b = 2.64607 - 0.93109I$	$6.69651 - 12.26470I$	0
$u = 0.768706 + 1.040500I$ $a = -1.71369 - 1.70604I$ $b = -2.88056 - 0.93363I$	$14.7102 + 14.7725I$	0
$u = 0.768706 - 1.040500I$ $a = -1.71369 + 1.70604I$ $b = -2.88056 + 0.93363I$	$14.7102 - 14.7725I$	0
$u = -0.677649$ $a = -0.901471$ $b = 0.554098$	1.96978	4.04310
$u = 0.324856 + 0.303719I$ $a = 0.84450 + 1.41509I$ $b = 0.866089 - 0.815927I$	$7.15764 - 2.51422I$	$4.29524 + 3.51135I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.324856 - 0.303719I$ $a = 0.84450 - 1.41509I$ $b = 0.866089 + 0.815927I$	$7.15764 + 2.51422I$	$4.29524 - 3.51135I$
$u = 0.171616 + 0.146966I$ $a = -0.80395 - 1.95618I$ $b = -0.367565 + 0.544328I$	$0.038818 - 1.169610I$	$0.66472 + 6.00737I$
$u = 0.171616 - 0.146966I$ $a = -0.80395 + 1.95618I$ $b = -0.367565 - 0.544328I$	$0.038818 + 1.169610I$	$0.66472 - 6.00737I$

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

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -5a^2u - 2a^2 - 4au - 5a + 5u + 2$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_4 c_5	$(y^2+y+1)^4$
c_3, c_9	y^8
c_6, c_{10}	$(y^4+y^3+3y^2+2y+1)^2$
c_7, c_8, c_{11} c_{12}	$(y^4+5y^3+7y^2+2y+1)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.500000 + 0.866025I$ $a = -0.447930 - 0.664845I$ $b = 0.351808 - 0.720342I$	$-0.21101 - 3.44499I$	$0.99907 + 9.21934I$
$u = -0.500000 + 0.866025I$ $a = 0.799738 + 0.055496I$ $b = 0.351808 + 0.720342I$	$-0.211005 - 0.614778I$	$-2.00436 - 1.31849I$
$u = -0.500000 + 0.866025I$ $a = 0.363298 + 1.193330I$ $b = -0.851808 + 0.911292I$	$6.79074 - 5.19385I$	$5.65243 + 5.51994I$
$u = -0.500000 + 0.866025I$ $a = -1.215110 + 0.282041I$ $b = -0.851808 - 0.911292I$	$6.79074 + 1.13408I$	$1.85285 + 1.30164I$
$u = -0.500000 - 0.866025I$ $a = -0.447930 + 0.664845I$ $b = 0.351808 + 0.720342I$	$-0.21101 + 3.44499I$	$0.99907 - 9.21934I$
$u = -0.500000 - 0.866025I$ $a = 0.799738 - 0.055496I$ $b = 0.351808 - 0.720342I$	$-0.211005 + 0.614778I$	$-2.00436 + 1.31849I$
$u = -0.500000 - 0.866025I$ $a = 0.363298 - 1.193330I$ $b = -0.851808 - 0.911292I$	$6.79074 + 5.19385I$	$5.65243 - 5.51994I$
$u = -0.500000 - 0.866025I$ $a = -1.215110 - 0.282041I$ $b = -0.851808 + 0.911292I$	$6.79074 - 1.13408I$	$1.85285 - 1.30164I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_4	$((u^2-u+1)^4)(u^{73}+23u^{72}+\cdots-7u-1)$
c_2	$((u^2+u+1)^4)(u^{73}+5u^{72}+\cdots-7u-1)$
c_3, c_9	$u^8(u^{73}+u^{72}+\cdots-384u-256)$
c_5	$((u^2-u+1)^4)(u^{73}+5u^{72}+\cdots-7u-1)$
c_6	$((u^4-u^3+u^2+1)^2)(u^{73}-3u^{72}+\cdots+1455u-1009)$
c_7, c_8	$((u^4-u^3+3u^2-2u+1)^2)(u^{73}-3u^{72}+\cdots+5u-1)$
c_{10}	$((u^4-u^3+u^2+1)^2)(u^{73}+21u^{72}+\cdots+34585u+3971)$
c_{11}, c_{12}	$((u^4+u^3+3u^2+2u+1)^2)(u^{73}-3u^{72}+\cdots+5u-1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_4	$((y^2+y+1)^4)(y^{73}+59y^{72}+\cdots-779y-1)$
c_2, c_5	$((y^2+y+1)^4)(y^{73}+23y^{72}+\cdots-7y-1)$
c_3, c_9	$y^8(y^{73}-45y^{72}+\cdots+638976y-65536)$
c_6	$(y^4+y^3+3y^2+2y+1)^2$ $\cdot\,(y^{73}-39y^{72}+\cdots-96349267y-1018081)$
c_7, c_8, c_{11} c_{12}	$((y^4+5y^3+7y^2+2y+1)^2)(y^{73}+85y^{72}+\cdots-11y-1)$
c_{10}	$(y^4+y^3+3y^2+2y+1)^2$ $\cdot\,(y^{73}-19y^{72}+\cdots+205103581y-15768841)$