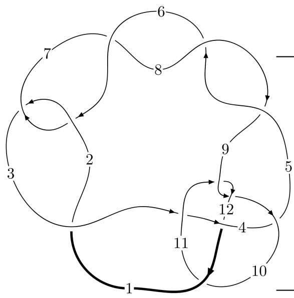
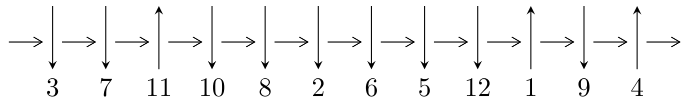
$12a_{0676}$ $(K12a_{0676})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -1.44258\times 10^{23}u^{71} + 3.59914\times 10^{23}u^{70} + \cdots + 7.89345\times 10^{22}b - 2.68405\times 10^{23},$$
$$-1.39901\times 10^{23}u^{71} + 3.60918\times 10^{23}u^{70} + \cdots + 7.89345\times 10^{22}a + 4.78490\times 10^{22},\ u^{72} - 2u^{71} + \cdots + 3u -$$
$$I_2^u = \langle b - u + 1,\ u^2 + a - u,\ u^3 - u^2 + 1\rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 75 representations.

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[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.

$\boldsymbol{I_1^u = \langle -1.44\times 10^{23}u^{71}+3.60\times 10^{23}u^{70}+\cdots+7.89\times 10^{22}b-2.68\times 10^{23},\ -1.40\times 10^{23}u^{71}+3.61\times 10^{23}u^{70}+\cdots+7.89\times 10^{22}a+4.78\times 10^{22},\ u^{72}-2u^{71}+\cdots+3u+1\rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 1.77237u^{71} - 4.57237u^{70} + \cdots + 0.769849u - 0.606185 \\ 1.82757u^{71} - 4.55965u^{70} + \cdots + 9.83520u + 3.40035 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -4.80003u^{71} + 11.7741u^{70} + \cdots - 2.80818u - 4.87175 \\ -5.18354u^{71} + 14.7695u^{70} + \cdots - 9.65757u - 7.77645 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u^2 + 1 \\ u^2 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^3 \\ u^5 - u^3 + u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} u^4 - u^2 + 1 \\ -u^4 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u^6 + u^4 - 2u^2 + 1 \\ u^6 + u^2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1.73698u^{71} - 4.53698u^{70} + \cdots + 1.12293u - 0.488491 \\ 1.86225u^{71} - 4.76003u^{70} + \cdots + 9.75138u + 3.39997 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 1.80708u^{71} - 4.60708u^{70} + \cdots - 0.0706153u + 0.176461 \\ 1.99306u^{71} - 4.95992u^{70} + \cdots + 10.2168u + 3.60008 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= \frac{30295591552386582900078361}{7893452383701883677152 9}u^{71} - \frac{81714060997983221963906 15}{7893452383701883677152 9}u^{70} + \cdots + \frac{43432686512229679601333 60}{7893452383701883677152 9}u + \frac{34083406086275385868383 12}{7893452383701883677152 9}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5, c_7 c_8	$u^{72} + 14u^{71} + \cdots + u + 1$
c_2, c_6	$u^{72} - 2u^{71} + \cdots + 3u + 1$
c_3	$u^{72} - 3u^{71} + \cdots - 164u - 53$
c_4	$u^{72} - 5u^{71} + \cdots - 32u + 1$
c_9, c_{11}	$u^{72} - 4u^{71} + \cdots + 2u - 1$
c_{10}	$u^{72} + 11u^{71} + \cdots - 4u + 8$
c_{12}	$u^{72} + 4u^{71} + \cdots - u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5, c_7 c_8	$y^{72} + 90y^{71} + \cdots + 123y + 1$
c_2, c_6	$y^{72} - 14y^{71} + \cdots - y + 1$
c_3	$y^{72} - 79y^{71} + \cdots + 38824y + 2809$
c_4	$y^{72} - 59y^{71} + \cdots - 416y + 1$
c_9, c_{11}	$y^{72} - 40y^{71} + \cdots - 82y + 1$
c_{10}	$y^{72} - 21y^{71} + \cdots - 1872y + 64$
c_{12}	$y^{72} + 14y^{71} + \cdots - y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.968902 + 0.264227I$ $a = -0.466064 - 0.401865I$ $b = 0.589810 - 0.192391I$	$-3.89955 - 2.26043I$	0
$u = -0.968902 - 0.264227I$ $a = -0.466064 + 0.401865I$ $b = 0.589810 + 0.192391I$	$-3.89955 + 2.26043I$	0
$u = -0.837009 + 0.531428I$ $a = -1.79640 + 0.60404I$ $b = 1.53021 + 0.76581I$	$-1.45829 + 5.16912I$	0
$u = -0.837009 - 0.531428I$ $a = -1.79640 - 0.60404I$ $b = 1.53021 - 0.76581I$	$-1.45829 - 5.16912I$	0
$u = 0.963527 + 0.168807I$ $a = -0.205175 - 0.227411I$ $b = -0.609188 + 1.049750I$	$-4.41858 - 7.88528I$	0
$u = 0.963527 - 0.168807I$ $a = -0.205175 + 0.227411I$ $b = -0.609188 - 1.049750I$	$-4.41858 + 7.88528I$	0
$u = 0.801619 + 0.650298I$ $a = -0.1235270 + 0.0608340I$ $b = 0.362049 + 0.280836I$	$2.44196 - 2.47078I$	0
$u = 0.801619 - 0.650298I$ $a = -0.1235270 - 0.0608340I$ $b = 0.362049 - 0.280836I$	$2.44196 + 2.47078I$	0
$u = 0.788074 + 0.561663I$ $a = -2.63792 - 1.76345I$ $b = 1.021010 + 0.526040I$	$0.09175 - 2.64810I$	$0. - 12.56607I$
$u = 0.788074 - 0.561663I$ $a = -2.63792 + 1.76345I$ $b = 1.021010 - 0.526040I$	$0.09175 + 2.64810I$	$0. + 12.56607I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.672578 + 0.792936I$ $a = 0.823148 - 0.340327I$ $b = -0.323921 + 0.762920I$	$2.70900 - 3.15094I$	0
$u = 0.672578 - 0.792936I$ $a = 0.823148 + 0.340327I$ $b = -0.323921 - 0.762920I$	$2.70900 + 3.15094I$	0
$u = -0.936556$ $a = -0.0800858$ $b = -0.822255$	-1.61727	-3.00800
$u = -0.882133 + 0.595412I$ $a = -0.77420 + 1.19520I$ $b = 1.43975 - 0.95089I$	$3.44838 + 7.01000I$	0
$u = -0.882133 - 0.595412I$ $a = -0.77420 - 1.19520I$ $b = 1.43975 + 0.95089I$	$3.44838 - 7.01000I$	0
$u = -0.627065 + 0.693340I$ $a = 1.62692 - 0.65486I$ $b = -1.091230 - 0.419584I$	$4.28127 - 2.21641I$	0
$u = -0.627065 - 0.693340I$ $a = 1.62692 + 0.65486I$ $b = -1.091230 + 0.419584I$	$4.28127 + 2.21641I$	0
$u = -0.542743 + 0.760330I$ $a = -1.35987 + 0.89996I$ $b = 0.950096 - 0.498703I$	$1.26807 - 7.90640I$	$0. + 4.88275I$
$u = -0.542743 - 0.760330I$ $a = -1.35987 - 0.89996I$ $b = 0.950096 + 0.498703I$	$1.26807 + 7.90640I$	$0. - 4.88275I$
$u = 0.707463 + 0.576385I$ $a = 1.82821 + 1.70583I$ $b = -1.14473 - 1.52935I$	$0.35169 - 1.67874I$	$-8.0346 + 12.5584I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.707463 - 0.576385I$ $a = 1.82821 - 1.70583I$ $b = -1.14473 + 1.52935I$	$0.35169 + 1.67874I$	$-8.0346 - 12.5584I$
$u = 0.950289 + 0.528900I$ $a = 0.496182 + 0.879142I$ $b = -0.380086 - 0.410207I$	$1.51382 - 5.03623I$	0
$u = 0.950289 - 0.528900I$ $a = 0.496182 - 0.879142I$ $b = -0.380086 + 0.410207I$	$1.51382 + 5.03623I$	0
$u = -0.765809 + 0.473153I$ $a = -0.559849 - 0.130249I$ $b = -0.46632 + 1.52805I$	$-2.54645 + 1.81480I$	$-11.24770 - 4.52021I$
$u = -0.765809 - 0.473153I$ $a = -0.559849 + 0.130249I$ $b = -0.46632 - 1.52805I$	$-2.54645 - 1.81480I$	$-11.24770 + 4.52021I$
$u = -0.953950 + 0.579297I$ $a = 1.28886 - 0.88100I$ $b = -1.122300 + 0.316177I$	$-0.08677 + 12.83750I$	0
$u = -0.953950 - 0.579297I$ $a = 1.28886 + 0.88100I$ $b = -1.122300 - 0.316177I$	$-0.08677 - 12.83750I$	0
$u = 0.499560 + 0.694540I$ $a = -1.201160 + 0.065538I$ $b = 0.709959 + 0.050244I$	$2.97800 + 0.47203I$	$1.72924 - 1.55020I$
$u = 0.499560 - 0.694540I$ $a = -1.201160 - 0.065538I$ $b = 0.709959 - 0.050244I$	$2.97800 - 0.47203I$	$1.72924 + 1.55020I$
$u = 0.813920 + 0.197808I$ $a = 0.003055 + 0.917148I$ $b = 0.323912 - 1.127260I$	$-0.75535 - 3.39687I$	$-8.26248 + 8.56994I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.813920 - 0.197808I$ $a = 0.003055 - 0.917148I$ $b = 0.323912 + 1.127260I$	$-0.75535 + 3.39687I$	$-8.26248 - 8.56994I$
$u = -0.615151 + 0.551675I$ $a = 0.53717 - 1.60738I$ $b = -1.37830 + 0.97742I$	$-0.763729 - 1.003110I$	$-6.06520 + 2.84230I$
$u = -0.615151 - 0.551675I$ $a = 0.53717 + 1.60738I$ $b = -1.37830 - 0.97742I$	$-0.763729 + 1.003110I$	$-6.06520 - 2.84230I$
$u = 0.953441 + 0.705802I$ $a = 0.359518 - 0.560462I$ $b = 0.232048 + 0.838202I$	$1.86961 - 2.36944I$	0
$u = 0.953441 - 0.705802I$ $a = 0.359518 + 0.560462I$ $b = 0.232048 - 0.838202I$	$1.86961 + 2.36944I$	0
$u = 0.798195 + 0.054269I$ $a = 1.44619 + 0.40925I$ $b = -0.451145 - 1.014630I$	$-4.41829 - 1.60184I$	$-17.9572 + 4.5768I$
$u = 0.798195 - 0.054269I$ $a = 1.44619 - 0.40925I$ $b = -0.451145 + 1.014630I$	$-4.41829 + 1.60184I$	$-17.9572 - 4.5768I$
$u = -0.715143 + 0.104849I$ $a = -0.120961 - 0.148988I$ $b = -0.713601 + 0.443948I$	$-1.135390 + 0.150760I$	$-9.68659 - 0.82277I$
$u = -0.715143 - 0.104849I$ $a = -0.120961 + 0.148988I$ $b = -0.713601 - 0.443948I$	$-1.135390 - 0.150760I$	$-9.68659 + 0.82277I$
$u = -0.887595 + 0.926385I$ $a = 1.62680 - 1.07259I$ $b = -2.66969 - 0.98983I$	$11.21660 - 1.64667I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.887595 - 0.926385I$ $a = 1.62680 + 1.07259I$ $b = -2.66969 + 0.98983I$	$11.21660 + 1.64667I$	0
$u = 0.927711 + 0.887451I$ $a = -0.186364 + 0.276748I$ $b = 0.457548 + 0.191821I$	$5.73987 - 3.27877I$	0
$u = 0.927711 - 0.887451I$ $a = -0.186364 - 0.276748I$ $b = 0.457548 - 0.191821I$	$5.73987 + 3.27877I$	0
$u = 0.915139 + 0.900867I$ $a = -1.07202 - 1.74600I$ $b = 3.62389 + 0.18229I$	$7.54879 + 0.58276I$	0
$u = 0.915139 - 0.900867I$ $a = -1.07202 + 1.74600I$ $b = 3.62389 - 0.18229I$	$7.54879 - 0.58276I$	0
$u = -0.926626 + 0.902491I$ $a = -3.29968 + 2.23419I$ $b = 5.82902 + 1.51753I$	$9.16836 + 2.49320I$	0
$u = -0.926626 - 0.902491I$ $a = -3.29968 - 2.23419I$ $b = 5.82902 - 1.51753I$	$9.16836 - 2.49320I$	0
$u = 0.894832 + 0.934493I$ $a = 1.47190 + 2.10489I$ $b = -3.70581 - 0.00429I$	$10.06680 + 9.25135I$	0
$u = 0.894832 - 0.934493I$ $a = 1.47190 - 2.10489I$ $b = -3.70581 + 0.00429I$	$10.06680 - 9.25135I$	0
$u = 0.945151 + 0.886788I$ $a = 1.82993 + 1.05340I$ $b = -3.14838 + 1.79988I$	$7.45245 - 7.18019I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.945151 - 0.886788I$ $a = 1.82993 - 1.05340I$ $b = -3.14838 - 1.79988I$	$7.45245 + 7.18019I$	0
$u = 0.912379 + 0.922074I$ $a = -1.44227 - 1.52272I$ $b = 2.92179 - 0.80824I$	$13.33720 + 2.59179I$	0
$u = 0.912379 - 0.922074I$ $a = -1.44227 + 1.52272I$ $b = 2.92179 + 0.80824I$	$13.33720 - 2.59179I$	0
$u = -0.939518 + 0.896155I$ $a = 2.45229 - 3.28599I$ $b = -5.86565 - 0.05755I$	$9.12667 + 4.14015I$	0
$u = -0.939518 - 0.896155I$ $a = 2.45229 + 3.28599I$ $b = -5.86565 + 0.05755I$	$9.12667 - 4.14015I$	0
$u = -0.925097 + 0.928051I$ $a = -0.668220 + 0.883655I$ $b = 1.44462 + 0.22158I$	$12.70380 + 2.76882I$	0
$u = -0.925097 - 0.928051I$ $a = -0.668220 - 0.883655I$ $b = 1.44462 - 0.22158I$	$12.70380 - 2.76882I$	0
$u = -0.687552$ $a = 2.99846$ $b = 4.14675$	-2.65408	94.5990
$u = 0.961864 + 0.896115I$ $a = 1.53307 + 1.32987I$ $b = -3.56486 + 0.38651I$	$13.1756 - 9.2867I$	0
$u = 0.961864 - 0.896115I$ $a = 1.53307 - 1.32987I$ $b = -3.56486 - 0.38651I$	$13.1756 + 9.2867I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.977744 + 0.880445I$ $a = -1.17212 + 1.51469I$ $b = 3.05247 - 0.03420I$	$10.92380 + 8.30184I$	0
$u = -0.977744 - 0.880445I$ $a = -1.17212 - 1.51469I$ $b = 3.05247 + 0.03420I$	$10.92380 - 8.30184I$	0
$u = -0.073283 + 0.676263I$ $a = 0.247487 - 0.921014I$ $b = 0.369400 - 0.069244I$	$-0.94073 + 5.37603I$	$-2.50022 - 5.98273I$
$u = -0.073283 - 0.676263I$ $a = 0.247487 + 0.921014I$ $b = 0.369400 + 0.069244I$	$-0.94073 - 5.37603I$	$-2.50022 + 5.98273I$
$u = -0.959256 + 0.908713I$ $a = 0.921830 - 0.524750I$ $b = -1.75197 - 0.38856I$	$12.59070 + 3.98684I$	0
$u = -0.959256 - 0.908713I$ $a = 0.921830 + 0.524750I$ $b = -1.75197 + 0.38856I$	$12.59070 - 3.98684I$	0
$u = 0.979452 + 0.889436I$ $a = -2.17771 - 1.34335I$ $b = 3.93843 - 1.30440I$	$9.7900 - 15.9619I$	0
$u = 0.979452 - 0.889436I$ $a = -2.17771 + 1.34335I$ $b = 3.93843 + 1.30440I$	$9.7900 + 15.9619I$	0
$u = 0.091771 + 0.497640I$ $a = -1.02382 + 1.03092I$ $b = 0.236589 + 0.194531I$	$1.46452 + 1.15591I$	$2.35576 - 1.43742I$
$u = 0.091771 - 0.497640I$ $a = -1.02382 - 1.03092I$ $b = 0.236589 - 0.194531I$	$1.46452 - 1.15591I$	$2.35576 + 1.43742I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.167885 + 0.261248I$ $a = -2.16440 - 0.06411I$ $b = -0.807671 + 0.534557I$	$-1.92776 + 0.81013I$	$-4.46723 - 0.15914I$
$u = -0.167885 - 0.261248I$ $a = -2.16440 + 0.06411I$ $b = -0.807671 - 0.534557I$	$-1.92776 - 0.81013I$	$-4.46723 + 0.15914I$

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

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -u^2 + 8u - 16$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.877439 + 0.744862I$ $a = 0.662359 - 0.562280I$ $b = -0.122561 + 0.744862I$	$1.37919 - 2.82812I$	$-9.19557 + 4.65175I$
$u = 0.877439 - 0.744862I$ $a = 0.662359 + 0.562280I$ $b = -0.122561 - 0.744862I$	$1.37919 + 2.82812I$	$-9.19557 - 4.65175I$
$u = -0.754878$ $a = -1.32472$ $b = -1.75488$	-2.75839	-22.6090

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_5	$(u^3 - u^2 + 2u - 1)(u^{72} + 14u^{71} + \cdots + u + 1)$
c_2	$(u^3 + u^2 - 1)(u^{72} - 2u^{71} + \cdots + 3u + 1)$
c_3	$(u^3 + 2u^2 + u + 1)(u^{72} - 3u^{71} + \cdots - 164u - 53)$
c_4	$(u^3 + 2u^2 + u + 1)(u^{72} - 5u^{71} + \cdots - 32u + 1)$
c_6	$(u^3 - u^2 + 1)(u^{72} - 2u^{71} + \cdots + 3u + 1)$
c_7, c_8	$(u^3 + u^2 + 2u + 1)(u^{72} + 14u^{71} + \cdots + u + 1)$
c_9	$((u - 1)^3)(u^{72} - 4u^{71} + \cdots + 2u - 1)$
c_{10}	$u^3(u^{72} + 11u^{71} + \cdots - 4u + 8)$
c_{11}	$((u + 1)^3)(u^{72} - 4u^{71} + \cdots + 2u - 1)$
c_{12}	$(u^3 - u^2 + 2u - 1)(u^{72} + 4u^{71} + \cdots - u - 1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_5, c_7 c_8	$(y^3+3y^2+2y-1)(y^{72}+90y^{71}+\cdots+123y+1)$
c_2, c_6	$(y^3-y^2+2y-1)(y^{72}-14y^{71}+\cdots-y+1)$
c_3	$(y^3-2y^2-3y-1)(y^{72}-79y^{71}+\cdots+38824y+2809)$
c_4	$(y^3-2y^2-3y-1)(y^{72}-59y^{71}+\cdots-416y+1)$
c_9, c_{11}	$((y-1)^3)(y^{72}-40y^{71}+\cdots-82y+1)$
c_{10}	$y^3(y^{72}-21y^{71}+\cdots-1872y+64)$
c_{12}	$(y^3+3y^2+2y-1)(y^{72}+14y^{71}+\cdots-y+1)$