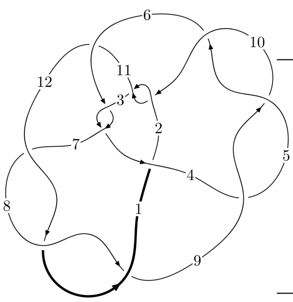
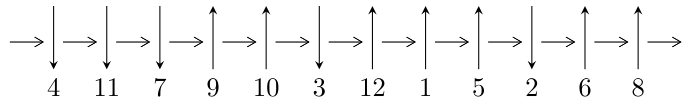
$12a_{1203}$ $(K12a_{1203})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$
\begin{aligned}
I_1^u = \langle & 4u^{10} - 2u^9 - 23u^8 + 12u^7 + 42u^6 - 23u^5 - 20u^4 + 20u^3 + b - 16u - 6, \\
& -24u^{10} + 16u^9 + 131u^8 - 92u^7 - 215u^6 + 162u^5 + 63u^4 - 111u^3 + 16u^2 + 7a + 83u + 29, \\
& u^{11} - 6u^9 + 12u^7 - 8u^5 + 2u^4 + 3u^3 - 4u^2 - 4u - 1\rangle \\
I_2^u = \langle & 1.89277 \times 10^{85}u^{59} - 8.97500 \times 10^{85}u^{58} + \cdots + 5.45911 \times 10^{86}b + 6.16613 \times 10^{86}, \\
& -3.98384 \times 10^{87}u^{59} + 1.21124 \times 10^{88}u^{58} + \cdots + 1.63773 \times 10^{87}a - 8.06741 \times 10^{86},\ u^{60} - 3u^{59} + \cdots - 4u -
\end{aligned}
$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 71 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. $I^u_1 =$
$\langle 4u^{10}-2u^9+\cdots+b-6,\ -24u^{10}+16u^9+\cdots+7a+29,\ u^{11}-6u^9+\cdots-4u-1\rangle$

(i) Arc colorings

$$a_7 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_{12} = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_8 = \begin{pmatrix}1\\-u^2\end{pmatrix}$$
$$a_1 = \begin{pmatrix}u\\-u^3+u\end{pmatrix}$$
$$a_4 = \begin{pmatrix}\frac{24}{7}u^{10}-\frac{16}{7}u^9+\cdots-\frac{83}{7}u-\frac{29}{7}\\-4u^{10}+2u^9+23u^8-12u^7-42u^6+23u^5+20u^4-20u^3+16u+6\end{pmatrix}$$
$$a_2 = \begin{pmatrix}-4.48980u^{10}+4.32653u^9+\cdots+17.8367u+4.73469\\\frac{30}{7}u^{10}-\frac{20}{7}u^9+\cdots-\frac{109}{7}u-\frac{38}{7}\end{pmatrix}$$
$$a_9 = \begin{pmatrix}-u^2+1\\u^4-2u^2\end{pmatrix}$$
$$a_5 = \begin{pmatrix}\frac{24}{7}u^{10}-\frac{16}{7}u^9+\cdots-\frac{76}{7}u-\frac{29}{7}\\-4u^{10}+2u^9+23u^8-12u^7-42u^6+24u^5+20u^4-22u^3+16u+6\end{pmatrix}$$
$$a_3 = \begin{pmatrix}-\frac{4}{7}u^{10}-\frac{2}{7}u^9+\cdots+\frac{29}{7}u+\frac{13}{7}\\-4u^{10}+2u^9+23u^8-12u^7-42u^6+23u^5+20u^4-20u^3+16u+6\end{pmatrix}$$
$$a_6 = \begin{pmatrix}-1.57143u^{10}+1.71429u^9+\cdots+4.14286u+1.85714\\3u^{10}-2u^9+\cdots-12u-4\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}-1.65306u^{10}+2.10204u^9+\cdots-0.551020u-1.02041\\\frac{33}{7}u^{10}-\frac{22}{7}u^9+\cdots-\frac{115}{7}u-\frac{39}{7}\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}\frac{16}{7}u^{10}-\frac{13}{7}u^9+\cdots-\frac{67}{7}u-\frac{17}{7}\\-2u^{10}+u^9+\cdots+10u+4\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes
$= \frac{68}{7}u^{10}-\frac{36}{7}u^9-\frac{384}{7}u^8+\frac{228}{7}u^7+\frac{664}{7}u^6-\frac{480}{7}u^5-32u^4+\frac{444}{7}u^3-\frac{92}{7}u^2-\frac{276}{7}u-\frac{18}{7}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$7(7u^{11} - 57u^{10} + \cdots - 288u + 64)$
c_2, c_3, c_6 c_{10}	$u^{11} + 2u^{10} - 2u^9 - 6u^8 + 6u^6 + 6u^5 + 4u^4 - 3u^3 - 2u^2 + 2u - 1$
c_4, c_5, c_7 c_8, c_9, c_{12}	$u^{11} - 6u^9 + 12u^7 - 8u^5 - 2u^4 + 3u^3 + 4u^2 - 4u + 1$
c_{11}	$7(7u^{11} - 57u^{10} + \cdots - 1232u + 160)$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$49(49y^{11} - 141y^{10} + \cdots - 48128y - 4096)$
c_2, c_3, c_6 c_{10}	$y^{11} - 8y^{10} + \cdots - 8y^2 - 1$
c_4, c_5, c_7 c_8, c_9, c_{12}	$y^{11} - 12y^{10} + \cdots + 8y - 1$
c_{11}	$49(49y^{11} - 575y^{10} + \cdots + 214784y - 25600)$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.478687 + 0.745648I$ $a = -0.553902 - 0.948598I$ $b = -1.34136 + 0.45173I$	$-5.83345 + 8.24192I$	$-1.78003 - 8.25664I$
$u = 0.478687 - 0.745648I$ $a = -0.553902 + 0.948598I$ $b = -1.34136 - 0.45173I$	$-5.83345 - 8.24192I$	$-1.78003 + 8.25664I$
$u = -0.658231 + 0.262357I$ $a = -1.46305 - 1.04015I$ $b = 1.266780 - 0.115508I$	$-4.39476 + 0.14427I$	$2.57188 + 3.97363I$
$u = -0.658231 - 0.262357I$ $a = -1.46305 + 1.04015I$ $b = 1.266780 + 0.115508I$	$-4.39476 - 0.14427I$	$2.57188 - 3.97363I$
$u = 1.33602$ $a = 2.25023$ $b = -0.601613$	7.19259	15.0510
$u = -0.479037 + 0.241898I$ $a = -0.181635 - 0.272909I$ $b = -0.259055 + 0.400626I$	$0.928640 - 0.385456I$	$9.67201 + 2.53338I$
$u = -0.479037 - 0.241898I$ $a = -0.181635 + 0.272909I$ $b = -0.259055 - 0.400626I$	$0.928640 + 0.385456I$	$9.67201 - 2.53338I$
$u = -1.58856 + 0.17840I$ $a = -0.206594 + 1.159350I$ $b = 0.242301 - 0.964246I$	$15.1584 - 4.3999I$	$11.24843 + 1.35382I$
$u = -1.58856 - 0.17840I$ $a = -0.206594 - 1.159350I$ $b = 0.242301 + 0.964246I$	$15.1584 + 4.3999I$	$11.24843 - 1.35382I$
$u = 1.57913 + 0.29390I$ $a = -0.36279 + 1.54535I$ $b = 1.39214 - 0.58407I$	$7.8167 + 16.1195I$	$5.19082 - 7.65707I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.57913 - 0.29390I$ $a = -0.36279 - 1.54535I$ $b = 1.39214 + 0.58407I$	$7.8167 - 16.1195I$	$5.19082 + 7.65707I$

II.

$\boldsymbol{I_2^u = \langle 1.89\times 10^{85}u^{59} - 8.98\times 10^{85}u^{58} + \cdots + 5.46\times 10^{86}b + 6.17\times 10^{86},\ -3.98\times 10^{87}u^{59} + 1.21\times 10^{88}u^{58} + \cdots + 1.64\times 10^{87}a - 8.07\times 10^{86},\ u^{60} - 3u^{59} + \cdots - 4u + 1\rangle}$

(i) Arc colorings

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 2.43253u^{59} - 7.39586u^{58} + \cdots - 72.0815u + 0.492596 \\ -0.0346718u^{59} + 0.164404u^{58} + \cdots - 0.741074u - 1.12951 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 8.63257u^{59} - 26.7187u^{58} + \cdots - 207.349u + 18.6317 \\ -0.243987u^{59} + 0.846358u^{58} + \cdots + 9.95097u - 2.79898 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u^2 + 1 \\ u^4 - 2u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 2.76707u^{59} - 8.30435u^{58} + \cdots - 79.3106u - 0.0929557 \\ -0.0306498u^{59} + 0.143629u^{58} + \cdots - 0.263022u - 1.12429 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 2.39786u^{59} - 7.23146u^{58} + \cdots - 72.8226u - 0.636916 \\ -0.0346718u^{59} + 0.164404u^{58} + \cdots - 0.741074u - 1.12951 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 3.00540u^{59} - 9.41833u^{58} + \cdots - 57.5152u - 3.02190 \\ 0.197053u^{59} - 0.528407u^{58} + \cdots + 0.476650u - 1.12091 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 6.13879u^{59} - 20.4327u^{58} + \cdots - 157.725u + 8.37417 \\ -0.446686u^{59} + 1.03858u^{58} + \cdots + 5.09039u - 2.20303 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -0.616946u^{59} + 2.65559u^{58} + \cdots + 44.4296u - 20.2992 \\ 0.144193u^{59} - 0.493218u^{58} + \cdots - 8.00218u - 0.368881 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 4.59968u^{59} - 12.3313u^{58} + \cdots - 95.2581u + 14.2700$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$9(3u^{30}+36u^{29}+\cdots+154u-41)^2$
c_2, c_3, c_6 c_{10}	$u^{60}-u^{59}+\cdots-14u+1$
c_4, c_5, c_7 c_8, c_9, c_{12}	$u^{60}+3u^{59}+\cdots+4u+1$
c_{11}	$9(3u^{30}-3u^{29}+\cdots+15u+1)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$81(9y^{30} - 102y^{29} + \cdots - 66274y + 1681)^2$
c_2, c_3, c_6 c_{10}	$y^{60} - 37y^{59} + \cdots - 428y + 1$
c_4, c_5, c_7 c_8, c_9, c_{12}	$y^{60} - 61y^{59} + \cdots - 68y + 1$
c_{11}	$81(9y^{30} - 147y^{29} + \cdots - 69y + 1)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.833474 + 0.555513I$ $a = 0.387187 - 0.319977I$ $b = 0.185112 + 0.453484I$	$7.21827 + 1.60938I$	0
$u = 0.833474 - 0.555513I$ $a = 0.387187 + 0.319977I$ $b = 0.185112 - 0.453484I$	$7.21827 - 1.60938I$	0
$u = 0.620080 + 0.732888I$ $a = 0.027446 - 0.613448I$ $b = -1.204640 - 0.259326I$	$-5.45352 - 3.30155I$	0
$u = 0.620080 - 0.732888I$ $a = 0.027446 + 0.613448I$ $b = -1.204640 + 0.259326I$	$-5.45352 + 3.30155I$	0
$u = -0.629559 + 0.862226I$ $a = 0.486783 - 1.011150I$ $b = 1.315580 + 0.457135I$	$0.61217 - 11.85690I$	0
$u = -0.629559 - 0.862226I$ $a = 0.486783 + 1.011150I$ $b = 1.315580 - 0.457135I$	$0.61217 + 11.85690I$	0
$u = -0.363141 + 0.797919I$ $a = -0.719921 + 0.642225I$ $b = -1.011050 - 0.278044I$	$-1.08758 - 3.25958I$	$2.38011 + 10.20080I$
$u = -0.363141 - 0.797919I$ $a = -0.719921 - 0.642225I$ $b = -1.011050 + 0.278044I$	$-1.08758 + 3.25958I$	$2.38011 - 10.20080I$
$u = -0.647832 + 0.589870I$ $a = -0.129345 + 0.669989I$ $b = -0.089131 - 0.919019I$	$4.91596 - 6.95691I$	$6.13134 + 6.91488I$
$u = -0.647832 - 0.589870I$ $a = -0.129345 - 0.669989I$ $b = -0.089131 + 0.919019I$	$4.91596 + 6.95691I$	$6.13134 - 6.91488I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.560987 + 1.036060I$ $a = 0.195707 - 0.202609I$ $b = 1.166400 - 0.314203I$	$0.26680 + 5.75700I$	0
$u = -0.560987 - 1.036060I$ $a = 0.195707 + 0.202609I$ $b = 1.166400 + 0.314203I$	$0.26680 - 5.75700I$	0
$u = -0.228769 + 0.724317I$ $a = 1.003230 - 0.131008I$ $b = -0.044280 + 0.505989I$	$3.67376 + 2.63649I$	$5.81236 - 1.84652I$
$u = -0.228769 - 0.724317I$ $a = 1.003230 + 0.131008I$ $b = -0.044280 - 0.505989I$	$3.67376 - 2.63649I$	$5.81236 + 1.84652I$
$u = 0.579713 + 1.108340I$ $a = 0.470071 + 0.518344I$ $b = 1.000490 - 0.320542I$	$5.13933 + 4.75641I$	0
$u = 0.579713 - 1.108340I$ $a = 0.470071 - 0.518344I$ $b = 1.000490 + 0.320542I$	$5.13933 - 4.75641I$	0
$u = 1.357920 + 0.019295I$ $a = 1.84637 + 0.92508I$ $b = 1.066870 - 0.034317I$	$1.55370 + 0.00608I$	0
$u = 1.357920 - 0.019295I$ $a = 1.84637 - 0.92508I$ $b = 1.066870 + 0.034317I$	$1.55370 - 0.00608I$	0
$u = -0.325223 + 0.548272I$ $a = 0.643224 - 0.820076I$ $b = 1.39941 + 0.44826I$	$-5.45352 - 3.30155I$	$-2.99005 + 4.83446I$
$u = -0.325223 - 0.548272I$ $a = 0.643224 + 0.820076I$ $b = 1.39941 - 0.44826I$	$-5.45352 + 3.30155I$	$-2.99005 - 4.83446I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.38075+0.35680I$ $a=-0.068945+0.802649I$ $b=-0.934678-0.203671I$	$1.87339-1.59238I$	0
$u=-1.38075-0.35680I$ $a=-0.068945-0.802649I$ $b=-0.934678+0.203671I$	$1.87339+1.59238I$	0
$u=-1.42198+0.11012I$ $a=-0.49563-1.58905I$ $b=\ \ 0.999372+0.593646I$	$3.67376-2.63649I$	0
$u=-1.42198-0.11012I$ $a=-0.49563+1.58905I$ $b=\ \ 0.999372-0.593646I$	$3.67376+2.63649I$	0
$u=-1.44134$ $a=-0.648369$ $b=-0.0486569$	3.34318	0
$u=\ \ 0.428325+0.345067I$ $a=\ \ 0.117620+0.589809I$ $b=\ \ 0.243272-0.979166I$	$-1.08758+3.25958I$	$2.38011-10.20080I$
$u=\ \ 0.428325-0.345067I$ $a=\ \ 0.117620-0.589809I$ $b=\ \ 0.243272+0.979166I$	$-1.08758-3.25958I$	$2.38011+10.20080I$
$u=\ \ 1.44300+0.15336I$ $a=-0.82586+1.54444I$ $b=\ \ 1.51584-0.77183I$	$0.26680+5.75700I$	0
$u=\ \ 1.44300-0.15336I$ $a=-0.82586-1.54444I$ $b=\ \ 1.51584+0.77183I$	$0.26680-5.75700I$	0
$u=-1.46078$ $a=\ \ 0.376305$ $b=-1.57915$	8.95550	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.47066 + 0.07345I$ $a = 0.445781 + 1.290480I$ $b = -0.446296 - 0.915918I$	$7.21827 + 1.60938I$	0
$u = 1.47066 - 0.07345I$ $a = 0.445781 - 1.290480I$ $b = -0.446296 + 0.915918I$	$7.21827 - 1.60938I$	0
$u = -1.47406$ $a = 0.939294$ $b = -1.86730$	8.91513	0
$u = -1.47658 + 0.08795I$ $a = 0.08740 - 1.86794I$ $b = 0.11923 + 1.50677I$	$5.13933 - 4.75641I$	0
$u = -1.47658 - 0.08795I$ $a = 0.08740 + 1.86794I$ $b = 0.11923 - 1.50677I$	$5.13933 + 4.75641I$	0
$u = 1.47858 + 0.04341I$ $a = 1.06994 + 1.32208I$ $b = -1.47842 - 1.04389I$	$8.05603 + 2.43541I$	0
$u = 1.47858 - 0.04341I$ $a = 1.06994 - 1.32208I$ $b = -1.47842 + 1.04389I$	$8.05603 - 2.43541I$	0
$u = 1.47684 + 0.25365I$ $a = 0.22074 - 1.43458I$ $b = -1.134910 + 0.555153I$	$4.91596 + 6.95691I$	0
$u = 1.47684 - 0.25365I$ $a = 0.22074 + 1.43458I$ $b = -1.134910 - 0.555153I$	$4.91596 - 6.95691I$	0
$u = -1.50444 + 0.25222I$ $a = 0.51791 + 1.58138I$ $b = -1.40913 - 0.64393I$	$0.61217 - 11.85690I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.50444-0.25222I$ $a=\ \ 0.51791-1.58138I$ $b=-1.40913+0.64393I$	$0.61217+11.85690I$	0
$u=-0.397490+0.226483I$ $a=-0.256525-0.636041I$ $b=-1.108750+0.697445I$	$1.87339-1.59238I$	$6.67632+9.14419I$
$u=-0.397490-0.226483I$ $a=-0.256525+0.636041I$ $b=-1.108750-0.697445I$	$1.87339+1.59238I$	$6.67632-9.14419I$
$u=\ \ 0.220469+0.386151I$ $a=\ \ 0.88338+1.75647I$ $b=\ \ 0.976188-0.197719I$	$-1.65573+0.87357I$	$-2.51974+1.49849I$
$u=\ \ 0.220469-0.386151I$ $a=\ \ 0.88338-1.75647I$ $b=\ \ 0.976188+0.197719I$	$-1.65573-0.87357I$	$-2.51974-1.49849I$
$u=\ \ 0.221492+0.372642I$ $a=-1.74604+0.73502I$ $b=\ \ 0.134818+0.350741I$	$-1.65573-0.87357I$	$-2.51974-1.49849I$
$u=\ \ 0.221492-0.372642I$ $a=-1.74604-0.73502I$ $b=\ \ 0.134818-0.350741I$	$-1.65573+0.87357I$	$-2.51974+1.49849I$
$u=\ \ 1.56045+0.18740I$ $a=-0.25231-1.52828I$ $b=-0.028871+1.223480I$	$12.2304+9.8327I$	0
$u=\ \ 1.56045-0.18740I$ $a=-0.25231+1.52828I$ $b=-0.028871-1.223480I$	$12.2304-9.8327I$	0
$u=\ \ 0.376786$ $a=-1.32121$ $b=-1.51840$	2.79630	14.5100

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.59069+0.33885I$ $a=-0.156905-1.268360I$ $b=\ \ 1.189620+0.558071I$	$12.2304-9.8327I$	0
$u=-1.59069-0.33885I$ $a=-0.156905+1.268360I$ $b=\ \ 1.189620-0.558071I$	$12.2304+9.8327I$	0
$u=-1.65135$ $a=\ \ 0.528394$ $b=-0.824716$	2.79630	0
$u=\ \ 1.68306$ $a=\ \ 0.372386$ $b=\ \ 0.317785$	8.95550	0
$u=-0.282510+0.079111I$ $a=\ \ 10.61020+7.07723I$ $b=-0.816929-0.088924I$	$1.55370+0.00608I$	$23.9533+12.6442I$
$u=-0.282510-0.079111I$ $a=\ \ 10.61020-7.07723I$ $b=-0.816929+0.088924I$	$1.55370-0.00608I$	$23.9533-12.6442I$
$u=\ \ 1.60577+0.59025I$ $a=\ \ 0.094048+0.587595I$ $b=\ \ 0.866646-0.256018I$	$8.05603+2.43541I$	0
$u=\ \ 1.60577-0.59025I$ $a=\ \ 0.094048-0.587595I$ $b=\ \ 0.866646+0.256018I$	$8.05603-2.43541I$	0
$u=\ \ 1.83729$ $a=-0.0147378$ $b=\ \ 0.649298$	8.91513	0
$u=\ \ 0.156757$ $a=-8.14324$ $b=-1.07240$	3.34318	2.41920

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$63(7u^{11} - 57u^{10} + \cdots - 288u + 64)$ $\cdot\,(3u^{30} + 36u^{29} + \cdots + 154u - 41)^2$
c_2, c_3, c_6 c_{10}	$(u^{11} + 2u^{10} - 2u^9 - 6u^8 + 6u^6 + 6u^5 + 4u^4 - 3u^3 - 2u^2 + 2u - 1)$ $\cdot\,(u^{60} - u^{59} + \cdots - 14u + 1)$
c_4, c_5, c_7 c_8, c_9, c_{12}	$(u^{11} - 6u^9 + 12u^7 - 8u^5 - 2u^4 + 3u^3 + 4u^2 - 4u + 1)$ $\cdot\,(u^{60} + 3u^{59} + \cdots + 4u + 1)$
c_{11}	$63(7u^{11} - 57u^{10} + \cdots - 1232u + 160)(3u^{30} - 3u^{29} + \cdots + 15u + 1)^2$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$3969(49y^{11} - 141y^{10} + \cdots - 48128y - 4096)$ $\cdot (9y^{30} - 102y^{29} + \cdots - 66274y + 1681)^2$
c_2, c_3, c_6 c_{10}	$(y^{11} - 8y^{10} + \cdots - 8y^2 - 1)(y^{60} - 37y^{59} + \cdots - 428y + 1)$
c_4, c_5, c_7 c_8, c_9, c_{12}	$(y^{11} - 12y^{10} + \cdots + 8y - 1)(y^{60} - 61y^{59} + \cdots - 68y + 1)$
c_{11}	$3969(49y^{11} - 575y^{10} + \cdots + 214784y - 25600)$ $\cdot (9y^{30} - 147y^{29} + \cdots - 69y + 1)^2$