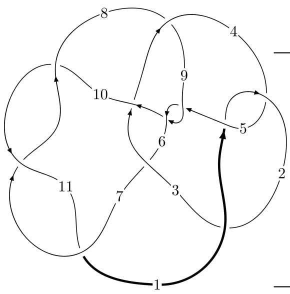
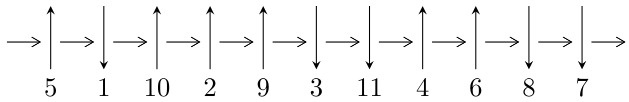
$11a_{29}$ $(K11a_{29})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle 4.99106 \times 10^{56} u^{60} - 5.54013 \times 10^{56} u^{59} + \cdots + 3.76009 \times 10^{57} b - 3.71146 \times 10^{57},$$
$$- 3.10364 \times 10^{57} u^{60} + 5.28988 \times 10^{57} u^{59} + \cdots + 1.12803 \times 10^{58} a - 3.91838 \times 10^{58},\ u^{61} - 3u^{60} + \cdots - 5u -$$
$$I_2^u = \langle 3b + 2u - 2,\ a + 1,\ u^2 + u + 1 \rangle$$
$$I_3^u = \langle 3b - 2u - 1,\ a + u,\ u^2 + u + 1 \rangle$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 65 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.

$I_1^u = \langle 4.99\times10^{56}u^{60} - 5.54\times10^{56}u^{59} + \cdots + 3.76\times10^{57}b - 3.71\times10^{57},\ -3.10\times10^{57}u^{60} + 5.29\times10^{57}u^{59} + \cdots + 1.13\times10^{58}a - 3.92\times10^{58},\ u^{61} - 3u^{60} + \cdots - 5u + 9\rangle$

(i) Arc colorings

$$a_1 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_5 = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_2 = \begin{pmatrix}1\\-u^2\end{pmatrix}$$
$$a_3 = \begin{pmatrix}u^2+1\\-u^2\end{pmatrix}$$
$$a_9 = \begin{pmatrix}0.275139u^{60} - 0.468950u^{59} + \cdots + 4.47285u + 3.47366\\-0.132738u^{60} + 0.147340u^{59} + \cdots - 4.15830u + 0.987068\end{pmatrix}$$
$$a_6 = \begin{pmatrix}1.11106u^{60} - 2.61700u^{59} + \cdots + 5.79571u - 5.77693\\-0.595122u^{60} + 2.16473u^{59} + \cdots + 2.14031u + 12.7347\end{pmatrix}$$
$$a_7 = \begin{pmatrix}0.302897u^{60} - 0.758393u^{59} + \cdots + 2.22294u - 1.51536\\-0.161015u^{60} + 0.635343u^{59} + \cdots + 2.73852u + 5.59822\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}0.327154u^{60} - 0.474281u^{59} + \cdots + 10.9343u + 2.92153\\-0.507182u^{60} + 1.24714u^{59} + \cdots - 4.55730u + 2.94439\end{pmatrix}$$
$$a_4 = \begin{pmatrix}-u\\u^3+u\end{pmatrix}$$
$$a_8 = \begin{pmatrix}0.849189u^{60} - 1.82096u^{59} + \cdots + 7.07757u + 2.72833\\-0.575418u^{60} + 1.58164u^{59} + \cdots - 3.44728u + 5.06368\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}-0.289728u^{60} + 0.616900u^{59} + \cdots + 6.66475u + 2.26231\\0.0110587u^{60} - 0.250053u^{59} + \cdots - 0.805308u - 1.89157\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}-0.289728u^{60} + 0.616900u^{59} + \cdots + 6.66475u + 2.26231\\0.0110587u^{60} - 0.250053u^{59} + \cdots - 0.805308u - 1.89157\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 1.51281u^{60} - 3.43786u^{59} + \cdots + 30.9340u - 2.78257$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4	$u^{61} + 3u^{60} + \cdots - 5u - 9$
c_2	$u^{61} + 21u^{60} + \cdots - 1505u - 81$
c_3	$u^{61} - 3u^{60} + \cdots - 1872u + 432$
c_5, c_9	$u^{61} - 3u^{60} + \cdots + 3u - 1$
c_6	$9(9u^{61} - 30u^{60} + \cdots + 293350u - 68375)$
c_7, c_{10}, c_{11}	$u^{61} - 3u^{60} + \cdots + 3u - 1$
c_8	$9(9u^{61} + 57u^{60} + \cdots - 10059u - 2801)$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4	$y^{61} + 21y^{60} + \cdots - 1505y - 81$
c_2	$y^{61} + 41y^{60} + \cdots + 37363y - 6561$
c_3	$y^{61} - 25y^{60} + \cdots + 1897344y - 186624$
c_5, c_9	$y^{61} - 39y^{60} + \cdots - 13y - 1$
c_6	$81(81y^{61} + 3546y^{60} + \cdots - 9.00135 \times 10^{10}y - 4.67514 \times 10^{9})$
c_7, c_{10}, c_{11}	$y^{61} + 61y^{60} + \cdots - 13y - 1$
c_8	$81(81y^{61} - 2259y^{60} + \cdots + 1.36190 \times 10^{8}y - 7845601)$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.627295 + 0.781178I$ $a = 0.779915 + 0.938460I$ $b = -0.133545 - 0.868985I$	$0.680796 - 0.488788I$	$8.37952 + 2.33314I$
$u = 0.627295 - 0.781178I$ $a = 0.779915 - 0.938460I$ $b = -0.133545 + 0.868985I$	$0.680796 + 0.488788I$	$8.37952 - 2.33314I$
$u = -0.909616 + 0.468593I$ $a = -1.059460 - 0.502224I$ $b = 1.43290 - 0.75784I$	$4.73566 - 1.67644I$	$12.36420 + 3.79278I$
$u = -0.909616 - 0.468593I$ $a = -1.059460 + 0.502224I$ $b = 1.43290 + 0.75784I$	$4.73566 + 1.67644I$	$12.36420 - 3.79278I$
$u = 0.823832 + 0.641756I$ $a = -0.493457 - 0.867597I$ $b = 0.171205 + 0.613586I$	$8.40390 - 4.08328I$	$6.32782 + 2.17005I$
$u = 0.823832 - 0.641756I$ $a = -0.493457 + 0.867597I$ $b = 0.171205 - 0.613586I$	$8.40390 + 4.08328I$	$6.32782 - 2.17005I$
$u = 0.084826 + 0.951096I$ $a = 0.768701 - 0.355562I$ $b = -0.926574 - 0.590119I$	$-3.04092 - 0.55487I$	$-5.63926 + 1.54785I$
$u = 0.084826 - 0.951096I$ $a = 0.768701 + 0.355562I$ $b = -0.926574 + 0.590119I$	$-3.04092 + 0.55487I$	$-5.63926 - 1.54785I$
$u = 0.745313 + 0.734834I$ $a = -0.69455 + 1.28009I$ $b = 1.59810 + 0.54771I$	$5.33189 - 0.62357I$	$6.90078 + 0.I$
$u = 0.745313 - 0.734834I$ $a = -0.69455 - 1.28009I$ $b = 1.59810 - 0.54771I$	$5.33189 + 0.62357I$	$6.90078 + 0.I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.592571 + 0.868966I$ $a = 0.643580 + 0.821069I$ $b = -3.23298 + 1.50658I$	$2.11702 - 2.33942I$	$-10.06681 - 7.06956I$
$u = -0.592571 - 0.868966I$ $a = 0.643580 - 0.821069I$ $b = -3.23298 - 1.50658I$	$2.11702 + 2.33942I$	$-10.06681 + 7.06956I$
$u = 0.869096 + 0.612382I$ $a = 0.840207 - 1.089160I$ $b = -1.66751 - 0.62148I$	$5.98865 - 5.78069I$	$6.25624 + 4.52312I$
$u = 0.869096 - 0.612382I$ $a = 0.840207 + 1.089160I$ $b = -1.66751 + 0.62148I$	$5.98865 + 5.78069I$	$6.25624 - 4.52312I$
$u = -0.510457 + 0.948104I$ $a = 0.221723 - 0.095163I$ $b = -0.197711 - 0.400616I$	$-0.17638 - 2.59422I$	0
$u = -0.510457 - 0.948104I$ $a = 0.221723 + 0.095163I$ $b = -0.197711 + 0.400616I$	$-0.17638 + 2.59422I$	0
$u = 0.642563 + 0.936820I$ $a = -0.882906 - 0.630814I$ $b = 0.433541 + 0.916219I$	$0.17275 + 5.47510I$	0
$u = 0.642563 - 0.936820I$ $a = -0.882906 + 0.630814I$ $b = 0.433541 - 0.916219I$	$0.17275 - 5.47510I$	0
$u = 0.318467 + 0.797607I$ $a = -1.256550 + 0.401471I$ $b = 1.24853 + 0.72368I$	$-0.53178 + 3.55128I$	$-1.97116 + 0.53822I$
$u = 0.318467 - 0.797607I$ $a = -1.256550 - 0.401471I$ $b = 1.24853 - 0.72368I$	$-0.53178 - 3.55128I$	$-1.97116 - 0.53822I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.541792 + 0.666328I$ $a = -0.443464 - 0.720747I$ $b = -1.80634 + 0.47653I$	$6.77383 - 1.39600I$	$1.94563 + 3.09396I$
$u = -0.541792 - 0.666328I$ $a = -0.443464 + 0.720747I$ $b = -1.80634 - 0.47653I$	$6.77383 + 1.39600I$	$1.94563 - 3.09396I$
$u = -0.105247 + 1.136650I$ $a = -0.528868 + 0.217428I$ $b = 0.733637 + 0.607458I$	$1.89473 - 3.39241I$	0
$u = -0.105247 - 1.136650I$ $a = -0.528868 - 0.217428I$ $b = 0.733637 - 0.607458I$	$1.89473 + 3.39241I$	0
$u = -0.430215 + 0.742658I$ $a = 0.120777 + 0.430167I$ $b = 0.656197 - 0.151023I$	$0.53014 - 1.40693I$	$5.62347 + 5.20497I$
$u = -0.430215 - 0.742658I$ $a = 0.120777 - 0.430167I$ $b = 0.656197 + 0.151023I$	$0.53014 + 1.40693I$	$5.62347 - 5.20497I$
$u = 0.769003 + 0.845851I$ $a = 1.196660 - 0.497619I$ $b = -2.31477 - 0.56610I$	$11.92950 + 1.96301I$	0
$u = 0.769003 - 0.845851I$ $a = 1.196660 + 0.497619I$ $b = -2.31477 + 0.56610I$	$11.92950 - 1.96301I$	0
$u = -0.035967 + 0.854814I$ $a = 0.563353 + 0.959661I$ $b = -0.057385 - 0.568156I$	$0.13425 - 1.52358I$	$1.52672 + 2.12846I$
$u = -0.035967 - 0.854814I$ $a = 0.563353 - 0.959661I$ $b = -0.057385 + 0.568156I$	$0.13425 + 1.52358I$	$1.52672 - 2.12846I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.757313 + 0.895285I$ $a = 0.456980 - 1.227760I$ $b = -1.41876 - 0.53071I$	$11.77860 + 3.79247I$	0
$u = 0.757313 - 0.895285I$ $a = 0.456980 + 1.227760I$ $b = -1.41876 + 0.53071I$	$11.77860 - 3.79247I$	0
$u = 1.008640 + 0.609371I$ $a = -0.801725 + 0.933371I$ $b = 1.70920 + 0.69780I$	$13.1909 - 9.2873I$	0
$u = 1.008640 - 0.609371I$ $a = -0.801725 - 0.933371I$ $b = 1.70920 - 0.69780I$	$13.1909 + 9.2873I$	0
$u = 0.699249 + 0.967906I$ $a = -1.098020 + 0.664109I$ $b = 2.41658 + 0.73364I$	$4.62247 + 6.13062I$	0
$u = 0.699249 - 0.967906I$ $a = -1.098020 - 0.664109I$ $b = 2.41658 - 0.73364I$	$4.62247 - 6.13062I$	0
$u = -0.312667 + 0.736573I$ $a = -0.52054 - 1.36729I$ $b = -0.76632 - 2.47025I$	$6.16730 - 1.44795I$	$6.66665 + 4.19132I$
$u = -0.312667 - 0.736573I$ $a = -0.52054 + 1.36729I$ $b = -0.76632 + 2.47025I$	$6.16730 + 1.44795I$	$6.66665 - 4.19132I$
$u = -0.141017 + 1.196910I$ $a = -0.409903 - 0.838432I$ $b = 0.617600 + 0.023876I$	$-1.00556 - 4.64477I$	0
$u = -0.141017 - 1.196910I$ $a = -0.409903 + 0.838432I$ $b = 0.617600 - 0.023876I$	$-1.00556 + 4.64477I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.657124 + 1.017530I$ $a = -0.322773 + 0.051413I$ $b = 0.113526 + 0.695926I$	$5.54533 - 3.61915I$	0
$u = -0.657124 - 1.017530I$ $a = -0.322773 - 0.051413I$ $b = 0.113526 - 0.695926I$	$5.54533 + 3.61915I$	0
$u = 0.711728 + 1.036980I$ $a = 0.745027 + 0.504667I$ $b = -0.521745 - 0.778989I$	$7.21133 + 9.84159I$	0
$u = 0.711728 - 1.036980I$ $a = 0.745027 - 0.504667I$ $b = -0.521745 + 0.778989I$	$7.21133 - 9.84159I$	0
$u = -0.602854 + 0.415244I$ $a = -0.754289 - 0.133208I$ $b = -0.631853 + 0.712874I$	$6.86257 - 1.40524I$	$4.78353 + 3.77219I$
$u = -0.602854 - 0.415244I$ $a = -0.754289 + 0.133208I$ $b = -0.631853 - 0.712874I$	$6.86257 + 1.40524I$	$4.78353 - 3.77219I$
$u = 0.717435 + 1.062890I$ $a = 0.966509 - 0.663460I$ $b = -2.53101 - 0.75950I$	$4.62032 + 11.67140I$	0
$u = 0.717435 - 1.062890I$ $a = 0.966509 + 0.663460I$ $b = -2.53101 + 0.75950I$	$4.62032 - 11.67140I$	0
$u = -0.736476 + 1.080940I$ $a = -0.590572 - 0.661323I$ $b = 2.05889 - 0.64346I$	$2.98645 - 4.33485I$	0
$u = -0.736476 - 1.080940I$ $a = -0.590572 + 0.661323I$ $b = 2.05889 + 0.64346I$	$2.98645 + 4.33485I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.762794 + 1.122440I$ $a = -0.897935 + 0.616455I$ $b = 2.61369 + 0.74270I$	$11.5735 + 15.7181I$	0
$u = 0.762794 - 1.122440I$ $a = -0.897935 - 0.616455I$ $b = 2.61369 - 0.74270I$	$11.5735 - 15.7181I$	0
$u = -1.265180 + 0.491129I$ $a = 0.862536 + 0.296472I$ $b = -1.81507 + 0.52494I$	$11.53690 - 2.05353I$	0
$u = -1.265180 - 0.491129I$ $a = 0.862536 - 0.296472I$ $b = -1.81507 - 0.52494I$	$11.53690 + 2.05353I$	0
$u = -0.23194 + 1.39578I$ $a = 0.368146 + 0.755457I$ $b = -0.844858 + 0.405684I$	$4.72211 - 7.08106I$	0
$u = -0.23194 - 1.39578I$ $a = 0.368146 - 0.755457I$ $b = -0.844858 - 0.405684I$	$4.72211 + 7.08106I$	0
$u = -0.91950 + 1.21328I$ $a = 0.561522 + 0.564425I$ $b = -1.88530 + 0.80608I$	$9.38339 - 5.57107I$	0
$u = -0.91950 - 1.21328I$ $a = 0.561522 - 0.564425I$ $b = -1.88530 - 0.80608I$	$9.38339 + 5.57107I$	0
$u = -0.408049$ $a = 2.87652$ $b = -0.0942688$	2.58372	0.156380
$u = 0.159087 + 0.350060I$ $a = 0.83224 + 1.41611I$ $b = 0.161959 - 0.489660I$	$0.145306 - 1.198500I$	$1.41714 + 6.05642I$

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u =$	$0.159087 - 0.350060I$		
$a =$	$0.83224 - 1.41611I$	$0.145306 + 1.198500I$	$1.41714 - 6.05642I$
$b =$	$0.161959 + 0.489660I$		

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

(i) Arc colorings

$$a_1 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 1 \\ u+1 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u \\ u+1 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -1 \\ -\frac{2}{3}u + \frac{2}{3} \end{pmatrix}$$
$$a_6 = \begin{pmatrix} u \\ -\frac{1}{3}u - \frac{2}{3} \end{pmatrix}$$
$$a_7 = \begin{pmatrix} \frac{4}{3}u - \frac{1}{3} \\ -u-1 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -u-2 \\ -u+1 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -u \\ u+1 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} \frac{2}{3}u - \frac{2}{3} \\ -u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -\frac{1}{3}u - \frac{2}{3} \\ -u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -\frac{1}{3}u - \frac{2}{3} \\ -u \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 8u + \frac{28}{3}$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.500000 + 0.866025I$ $a = -1.00000$ $b = \quad 1.000000 - 0.577350I$	$-\ 4.05977I$	$5.33333 + 6.92820I$
$u = -0.500000 - 0.866025I$ $a = -1.00000$ $b = \quad 1.000000 + 0.577350I$	$4.05977I$	$5.33333 - 6.92820I$

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

(i) Arc colorings

$$a_1 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_2 = \begin{pmatrix} 1 \\ u+1 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -u \\ u+1 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u \\ \frac{2}{3}u + \frac{1}{3} \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1 \\ \frac{4}{3}u - \frac{1}{3} \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -\frac{1}{3}u + \frac{1}{3} \\ u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -2u - 1 \\ u+2 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -u \\ u+1 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -\frac{5}{3}u - \frac{1}{3} \\ u+1 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -\frac{2}{3}u + \frac{2}{3} \\ u+1 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -\frac{2}{3}u + \frac{2}{3} \\ u+1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{8}{3}u + \frac{5}{3}$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.500000 + 0.866025I$ $a = 0.500000 - 0.866025I$ $b = 0.577350I$	0	$0.33333 + 2.30940I$
$u = -0.500000 - 0.866025I$ $a = 0.500000 + 0.866025I$ $b = -0.577350I$	0	$0.33333 - 2.30940I$

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u^2+u+1)^2)(u^{61}+3u^{60}+\cdots-5u-9)$
c_2	$((u^2+u+1)^2)(u^{61}+21u^{60}+\cdots-1505u-81)$
c_3	$u^4(u^{61}-3u^{60}+\cdots-1872u+432)$
c_4	$((u^2-u+1)^2)(u^{61}+3u^{60}+\cdots-5u-9)$
c_5	$((u^2+u+1)^2)(u^{61}-3u^{60}+\cdots+3u-1)$
c_6	$81(3u^2+1)(3u^2+3u+1)(9u^{61}-30u^{60}+\cdots+293350u-68375)$
c_7	$((u^2-u+1)^2)(u^{61}-3u^{60}+\cdots+3u-1)$
c_8	$81(3u^2-3u+1)(3u^2+3u+1)(9u^{61}+57u^{60}+\cdots-10059u-2801)$
c_9	$((u^2-u+1)^2)(u^{61}-3u^{60}+\cdots+3u-1)$
c_{10}, c_{11}	$((u^2+u+1)^2)(u^{61}-3u^{60}+\cdots+3u-1)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_4	$((y^2+y+1)^2)(y^{61}+21y^{60}+\cdots-1505y-81)$
c_2	$((y^2+y+1)^2)(y^{61}+41y^{60}+\cdots+37363y-6561)$
c_3	$y^4(y^{61}-25y^{60}+\cdots+1897344y-186624)$
c_5, c_9	$((y^2+y+1)^2)(y^{61}-39y^{60}+\cdots-13y-1)$
c_6	$6561(3y+1)^2(9y^2-3y+1)$ $\cdot(81y^{61}+3546y^{60}+\cdots-90013453750y-4675140625)$
c_7, c_{10}, c_{11}	$((y^2+y+1)^2)(y^{61}+61y^{60}+\cdots-13y-1)$
c_8	$6561(9y^2-3y+1)^2$ $\cdot(81y^{61}-2259y^{60}+\cdots+136190379y-7845601)$