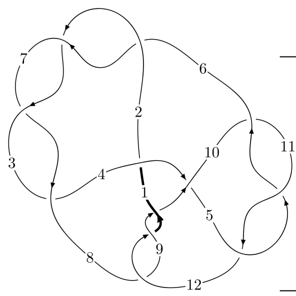
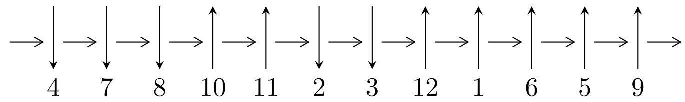
$12a_{1028}$ $(K12a_{1028})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I^u_1 = \langle -1.85413 \times 10^{21} u^{61} + 5.58501 \times 10^{20} u^{60} + \cdots + 1.19724 \times 10^{21} b + 4.72952 \times 10^{21},$$
$$- 5.85942 \times 10^{20} u^{61} - 1.64356 \times 10^{19} u^{60} + \cdots + 1.79587 \times 10^{21} a - 5.76656 \times 10^{21},\ u^{62} - 2u^{61} + \cdots - 3u -$$
$$I^u_2 = \langle 2b - a + u + 1,\ a^2 - 2au - 2a + u + 10,\ u^2 + u - 1 \rangle$$
$$I^u_3 = \langle b,\ a + u - 1,\ u^2 - u - 1 \rangle$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 68 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.

$\boldsymbol{I_1^u = \langle -1.85\times 10^{21}u^{61}+5.59\times 10^{20}u^{60}+\cdots+1.20\times 10^{21}b+4.73\times 10^{21},\ -5.86\times 10^{20}u^{61}-1.64\times 10^{19}u^{60}+\cdots+1.80\times 10^{21}a-5.77\times 10^{21},\ u^{62}-2u^{61}+\cdots-3u+3\rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u \\ -u^3+u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u^2+1 \\ -u^4+2u^2 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0.326273u^{61}+0.00915189u^{60}+\cdots+0.583257u+3.21102 \\ 1.54866u^{61}-0.466489u^{60}+\cdots+1.71535u-3.95034 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -1.89429u^{61}+1.84617u^{60}+\cdots-2.84257u+3.02775 \\ 0.503182u^{61}-0.156338u^{60}+\cdots+2.70916u-0.866273 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 0.400730u^{61}+0.0422853u^{60}+\cdots+6.28535u-1.31710 \\ -0.764399u^{61}-0.0338770u^{60}+\cdots-2.88357u+2.08459 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -1.22239u^{61}+0.475640u^{60}+\cdots-1.13210u+7.16135 \\ 1.54866u^{61}-0.466489u^{60}+\cdots+1.71535u-3.95034 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} u^3-2u \\ u^5-3u^3+u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^7-4u^5+4u^3 \\ u^9-5u^7+7u^5-2u^3+u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -0.773448u^{61}+0.634298u^{60}+\cdots+0.552568u+6.07578 \\ 1.06704u^{61}-0.140676u^{60}+\cdots+1.68212u-2.77517 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -\frac{5453229852496626061797}{598622430020480889203}u^{61} + \frac{4853186041595372948925}{598622430020480889203}u^{60} + \cdots + \frac{1447960051378280933167 0}{598622430020480889203}u + \frac{12926322886540541438955}{598622430020480889203}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{62} - 16u^{61} + \cdots - 579u - 1233$
c_2, c_3, c_6 c_7	$u^{62} - 2u^{61} + \cdots - 3u + 3$
c_4	$u^{62} - u^{61} + \cdots + 1776u - 340$
c_5, c_{10}, c_{11}	$u^{62} + u^{61} + \cdots + 28u^2 - 4$
c_8, c_9, c_{12}	$u^{62} - 3u^{61} + \cdots - 42u - 11$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{62} + 28y^{60} + \cdots - 15215085y + 1520289$
c_2, c_3, c_6 c_7	$y^{62} - 72y^{61} + \cdots - 165y + 9$
c_4	$y^{62} - 3y^{61} + \cdots - 1187616y + 115600$
c_5, c_{10}, c_{11}	$y^{62} + 57y^{61} + \cdots - 224y + 16$
c_8, c_9, c_{12}	$y^{62} - 57y^{61} + \cdots + 1382y + 121$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.007200 + 0.261088I$ $a = -0.41639 - 1.97038I$ $b = -0.267837 - 1.310190I$	$-1.60394 + 3.46351I$	0
$u = 1.007200 - 0.261088I$ $a = -0.41639 + 1.97038I$ $b = -0.267837 + 1.310190I$	$-1.60394 - 3.46351I$	0
$u = -1.07420$ $a = -0.365351$ $b = -0.698555$	2.56229	0
$u = -0.716351 + 0.566259I$ $a = 1.86955 - 1.69297I$ $b = -0.32576 - 1.41185I$	$0.79702 + 10.87260I$	$0. - 8.18899I$
$u = -0.716351 - 0.566259I$ $a = 1.86955 + 1.69297I$ $b = -0.32576 + 1.41185I$	$0.79702 - 10.87260I$	$0. + 8.18899I$
$u = 0.655993 + 0.571625I$ $a = 0.488575 + 1.010890I$ $b = -0.796895 + 0.259193I$	$6.11030 - 6.80886I$	$5.34073 + 7.16429I$
$u = 0.655993 - 0.571625I$ $a = 0.488575 - 1.010890I$ $b = -0.796895 - 0.259193I$	$6.11030 + 6.80886I$	$5.34073 - 7.16429I$
$u = -0.673724 + 0.494492I$ $a = -2.29323 + 1.43376I$ $b = 0.259258 + 1.374700I$	$-4.69108 + 6.74684I$	$-3.12963 - 7.87910I$
$u = -0.673724 - 0.494492I$ $a = -2.29323 - 1.43376I$ $b = 0.259258 - 1.374700I$	$-4.69108 - 6.74684I$	$-3.12963 + 7.87910I$
$u = 0.796177 + 0.213333I$ $a = 0.41466 + 2.30478I$ $b = 0.121032 + 1.385540I$	$-6.55517 + 0.85488I$	$-7.88148 + 0.17264I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.796177 - 0.213333I$ $a = 0.41466 - 2.30478I$ $b = 0.121032 - 1.385540I$	$-6.55517 - 0.85488I$	$-7.88148 - 0.17264I$
$u = -0.564043 + 0.548667I$ $a = -0.447341 + 0.229699I$ $b = -0.443497 + 0.844170I$	$4.21718 + 2.38094I$	$3.74390 - 2.67056I$
$u = -0.564043 - 0.548667I$ $a = -0.447341 - 0.229699I$ $b = -0.443497 - 0.844170I$	$4.21718 - 2.38094I$	$3.74390 + 2.67056I$
$u = 0.594165 + 0.444538I$ $a = -0.836395 - 1.036370I$ $b = 0.639315 - 0.206105I$	$0.32482 - 3.45235I$	$2.17977 + 8.36980I$
$u = 0.594165 - 0.444538I$ $a = -0.836395 + 1.036370I$ $b = 0.639315 + 0.206105I$	$0.32482 + 3.45235I$	$2.17977 - 8.36980I$
$u = -0.571188 + 0.431106I$ $a = 2.56598 - 0.45376I$ $b = -0.178341 - 1.300370I$	$-2.75175 + 2.08926I$	$-0.01721 - 4.13986I$
$u = -0.571188 - 0.431106I$ $a = 2.56598 + 0.45376I$ $b = -0.178341 + 1.300370I$	$-2.75175 - 2.08926I$	$-0.01721 + 4.13986I$
$u = -0.387908 + 0.598457I$ $a = -1.019370 + 0.588574I$ $b = 0.373907 + 0.983797I$	$4.73467 + 1.53584I$	$5.00104 - 3.92364I$
$u = -0.387908 - 0.598457I$ $a = -1.019370 - 0.588574I$ $b = 0.373907 - 0.983797I$	$4.73467 - 1.53584I$	$5.00104 + 3.92364I$
$u = -1.28895$ $a = -0.201518$ $b = -0.778136$	2.51819	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.204781+0.675940I$ $a=-0.420014-0.371051I$ $b=0.324097-1.368980I$	$2.31037-6.69590I$	$3.77430+3.38945I$
$u=-0.204781-0.675940I$ $a=-0.420014+0.371051I$ $b=0.324097+1.368980I$	$2.31037+6.69590I$	$3.77430-3.38945I$
$u=0.281609+0.646493I$ $a=-0.595970-0.184571I$ $b=0.786421+0.183473I$	$7.21336+2.69083I$	$8.17138-1.26728I$
$u=0.281609-0.646493I$ $a=-0.595970+0.184571I$ $b=0.786421-0.183473I$	$7.21336-2.69083I$	$8.17138+1.26728I$
$u=0.523352+0.352342I$ $a=-1.00450-2.49502I$ $b=-0.04818-1.50583I$	$-3.44113-1.26231I$	$1.66254+5.76495I$
$u=0.523352-0.352342I$ $a=-1.00450+2.49502I$ $b=-0.04818+1.50583I$	$-3.44113+1.26231I$	$1.66254-5.76495I$
$u=-0.582526+0.226332I$ $a=0.359239-0.256336I$ $b=0.236534-0.399039I$	$-1.067670+0.638295I$	$-5.14268-1.93986I$
$u=-0.582526-0.226332I$ $a=0.359239+0.256336I$ $b=0.236534+0.399039I$	$-1.067670-0.638295I$	$-5.14268+1.93986I$
$u=-0.202268+0.549474I$ $a=0.632451-0.143815I$ $b=-0.214182+1.332140I$	$-3.33458-3.15272I$	$0.14004+2.65338I$
$u=-0.202268-0.549474I$ $a=0.632451+0.143815I$ $b=-0.214182-1.332140I$	$-3.33458+3.15272I$	$0.14004-2.65338I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.40914 + 0.13315I$ $a = 0.51047 + 1.56454I$ $b = -0.371460 + 1.155570I$	$-0.99301 - 4.15133I$	0
$u = 1.40914 - 0.13315I$ $a = 0.51047 - 1.56454I$ $b = -0.371460 - 1.155570I$	$-0.99301 + 4.15133I$	0
$u = -0.347757 + 0.431451I$ $a = 0.505172 + 0.967871I$ $b = 0.064547 - 1.219600I$	$-2.12115 + 0.99111I$	$2.00930 - 4.70377I$
$u = -0.347757 - 0.431451I$ $a = 0.505172 - 0.967871I$ $b = 0.064547 + 1.219600I$	$-2.12115 - 0.99111I$	$2.00930 + 4.70377I$
$u = 0.314628 + 0.395456I$ $a = 1.164540 + 0.306965I$ $b = -0.542566 - 0.070217I$	$1.123480 + 0.375315I$	$7.22919 - 0.47300I$
$u = 0.314628 - 0.395456I$ $a = 1.164540 - 0.306965I$ $b = -0.542566 + 0.070217I$	$1.123480 - 0.375315I$	$7.22919 + 0.47300I$
$u = 1.49488 + 0.02116I$ $a = -0.413812 - 0.671306I$ $b = 0.148317 - 1.100670I$	$-8.06794 - 2.22872I$	0
$u = 1.49488 - 0.02116I$ $a = -0.413812 + 0.671306I$ $b = 0.148317 + 1.100670I$	$-8.06794 + 2.22872I$	0
$u = -1.53366 + 0.06763I$ $a = -0.491620 + 0.585520I$ $b = 0.641533 + 0.140097I$	$-5.27774 + 0.82413I$	0
$u = -1.53366 - 0.06763I$ $a = -0.491620 - 0.585520I$ $b = 0.641533 - 0.140097I$	$-5.27774 - 0.82413I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.55311 + 0.15223I$ $a = 0.506739 + 0.861351I$ $b = 0.548479 + 0.764285I$	$-2.85138 - 4.88620I$	0
$u = 1.55311 - 0.15223I$ $a = 0.506739 - 0.861351I$ $b = 0.548479 - 0.764285I$	$-2.85138 + 4.88620I$	0
$u = -1.56119 + 0.09638I$ $a = 0.23930 - 3.01008I$ $b = 0.09718 - 1.54436I$	$-10.56980 + 2.85407I$	0
$u = -1.56119 - 0.09638I$ $a = 0.23930 + 3.01008I$ $b = 0.09718 + 1.54436I$	$-10.56980 - 2.85407I$	0
$u = 1.56746 + 0.07050I$ $a = -0.298449 - 0.641796I$ $b = -0.346399 - 0.620690I$	$-8.41341 - 1.75030I$	0
$u = 1.56746 - 0.07050I$ $a = -0.298449 + 0.641796I$ $b = -0.346399 + 0.620690I$	$-8.41341 + 1.75030I$	0
$u = 1.56590 + 0.11660I$ $a = -1.66729 - 1.77178I$ $b = 0.247184 - 1.349610I$	$-9.98940 - 4.04036I$	0
$u = 1.56590 - 0.11660I$ $a = -1.66729 + 1.77178I$ $b = 0.247184 + 1.349610I$	$-9.98940 + 4.04036I$	0
$u = -1.57023 + 0.12495I$ $a = 0.179918 - 0.969880I$ $b = -0.707659 - 0.274637I$	$-6.99530 + 5.51319I$	0
$u = -1.57023 - 0.12495I$ $a = 0.179918 + 0.969880I$ $b = -0.707659 + 0.274637I$	$-6.99530 - 5.51319I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.58497 + 0.17268I$ $a = 0.089269 + 1.024050I$ $b = 0.804752 + 0.322755I$	$-1.40796 + 9.56550I$	0
$u = -1.58497 - 0.17268I$ $a = 0.089269 - 1.024050I$ $b = 0.804752 - 0.322755I$	$-1.40796 - 9.56550I$	0
$u = 1.59444 + 0.14506I$ $a = 1.52867 + 2.29285I$ $b = -0.28220 + 1.40989I$	$-12.3648 - 9.1191I$	0
$u = 1.59444 - 0.14506I$ $a = 1.52867 - 2.29285I$ $b = -0.28220 - 1.40989I$	$-12.3648 + 9.1191I$	0
$u = 1.60987 + 0.17229I$ $a = -1.27643 - 2.49461I$ $b = 0.32114 - 1.44418I$	$-7.0545 - 13.6509I$	0
$u = 1.60987 - 0.17229I$ $a = -1.27643 + 2.49461I$ $b = 0.32114 + 1.44418I$	$-7.0545 + 13.6509I$	0
$u = -1.62128 + 0.05900I$ $a = -0.17888 + 2.84328I$ $b = -0.11167 + 1.44607I$	$-14.8365 + 0.1781I$	0
$u = -1.62128 - 0.05900I$ $a = -0.17888 - 2.84328I$ $b = -0.11167 - 1.44607I$	$-14.8365 - 0.1781I$	0
$u = 0.365613$ $a = 2.26862$ $b = -0.327163$	1.07665	14.5070
$u = 1.65789$ $a = 0.489935$ $b = 0.479321$	-6.61187	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.67622 + 0.04758I$ $a = 0.20931 - 2.66730I$ $b = 0.185218 - 1.328710I$	$-10.91160 - 2.40878I$	0
$u = -1.67622 - 0.04758I$ $a = 0.20931 + 2.66730I$ $b = 0.185218 + 1.328710I$	$-10.91160 + 2.40878I$	0

II. $\boldsymbol{I_2^u = \langle 2b - a + u + 1,\ a^2 - 2au - 2a + u + 10,\ u^2 + u - 1\rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ -u+1 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u \\ -u+1 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} a \\ \frac{1}{2}a - \frac{1}{2}u - \frac{1}{2} \end{pmatrix}$$
$$a_5 = \begin{pmatrix} \frac{1}{2}au + \frac{1}{2}a - \frac{1}{2}u - 4 \\ -2 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -\frac{1}{2}a - \frac{1}{2}u - \frac{1}{2} \\ -\frac{1}{2}a + \frac{1}{2}u + \frac{1}{2} \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} \frac{1}{2}a + \frac{1}{2}u + \frac{1}{2} \\ \frac{1}{2}a - \frac{1}{2}u - \frac{1}{2} \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} \frac{1}{2}a + \frac{3}{2}u + \frac{1}{2} \\ \frac{1}{2}a + \frac{1}{2}u - \frac{1}{2} \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -4$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.618034$ $a = 1.61803 + 2.82843I$ $b = 1.414210I$	-4.27683	-4.00000
$u = 0.618034$ $a = 1.61803 - 2.82843I$ $b = -1.414210I$	-4.27683	-4.00000
$u = -1.61803$ $a = -0.61803 + 2.82843I$ $b = 1.414210I$	-12.1725	-4.00000
$u = -1.61803$ $a = -0.61803 - 2.82843I$ $b = -1.414210I$	-12.1725	-4.00000

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

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -6$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.618034$ $a = 1.61803$ $b = 0$	0.657974	−6.00000
$u = 1.61803$ $a = -0.618034$ $b = 0$	−7.23771	−6.00000

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u^2+u-1)^3)(u^{62}-16u^{61}+\cdots-579u-1233)$
c_2, c_3	$((u^2-u-1)^2)(u^2+u-1)(u^{62}-2u^{61}+\cdots-3u+3)$
c_4	$u^2(u^2+2)^2(u^{62}-u^{61}+\cdots+1776u-340)$
c_5, c_{10}, c_{11}	$u^2(u^2+2)^2(u^{62}+u^{61}+\cdots+28u^2-4)$
c_6, c_7	$(u^2-u-1)(u^2+u-1)^2(u^{62}-2u^{61}+\cdots-3u+3)$
c_8, c_9	$((u-1)^4)(u+1)^2(u^{62}-3u^{61}+\cdots-42u-11)$
c_{12}	$((u-1)^2)(u+1)^4(u^{62}-3u^{61}+\cdots-42u-11)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y^2-3y+1)^3)(y^{62}+28y^{60}+\cdots-1.52151\times10^7y+1520289)$
c_2, c_3, c_6 c_7	$((y^2-3y+1)^3)(y^{62}-72y^{61}+\cdots-165y+9)$
c_4	$y^2(y+2)^4(y^{62}-3y^{61}+\cdots-1187616y+115600)$
c_5, c_{10}, c_{11}	$y^2(y+2)^4(y^{62}+57y^{61}+\cdots-224y+16)$
c_8, c_9, c_{12}	$((y-1)^6)(y^{62}-57y^{61}+\cdots+1382y+121)$