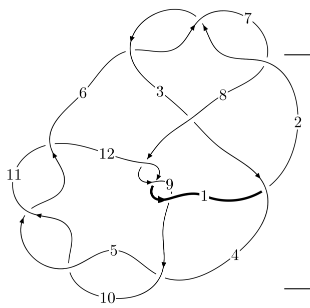
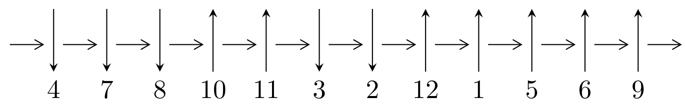
$12a_{1031}$ ($K12a_{1031}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -2.19647 \times 10^{18} u^{56} - 5.09545 \times 10^{18} u^{55} + \cdots + 7.20554 \times 10^{18} b + 1.28415 \times 10^{19},$$
$$- 7.29984 \times 10^{18} u^{56} - 1.44902 \times 10^{19} u^{55} + \cdots + 7.20554 \times 10^{18} a + 7.38518 \times 10^{19},\ u^{57} + 2u^{56} + \cdots - 8u -$$
$$I_2^u = \langle -u^2 a - u^2 + b - a + u - 2,\ 2u^2 a + a^2 + u^2 + 2a - 3u + 2,\ u^3 - u^2 + 2u - 1 \rangle$$
$$I_3^u = \langle b,\ -u^2 + a - 1,\ u^3 + u^2 + 2u + 1 \rangle$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 66 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.

$$\boldsymbol{I_1^u = \langle -2.20\times10^{18}u^{56} - 5.10\times10^{18}u^{55} + \cdots + 7.21\times10^{18}b + 1.28\times10^{19},\ -7.30\times10^{18}u^{56} - 1.45\times10^{19}u^{55} + \cdots + 7.21\times10^{18}a + 7.39\times10^{19},\ u^{57} + 2u^{56} + \cdots - 8u + 1\rangle}$$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 1.01309u^{56} + 2.01098u^{55} + \cdots + 4.60352u - 10.2493 \\ 0.304830u^{56} + 0.707157u^{55} + \cdots + 1.30428u - 1.78217 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 1.31792u^{56} + 2.71814u^{55} + \cdots + 5.90780u - 12.0315 \\ 0.304830u^{56} + 0.707157u^{55} + \cdots + 1.30428u - 1.78217 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} u^2 + 1 \\ u^4 + 2u^2 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -u^5 - 2u^3 - u \\ -u^7 - 3u^5 - 2u^3 + u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1.63554u^{56} + 3.51891u^{55} + \cdots + 6.76669u - 12.1033 \\ 0.230341u^{56} + 0.550285u^{55} + \cdots - 0.632533u - 1.56754 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^9 + 4u^7 + 5u^5 + 2u^3 + u \\ u^{11} + 5u^9 + 8u^7 + 3u^5 - u^3 + u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -2.34155u^{56} - 5.04434u^{55} + \cdots - 6.58540u + 15.6235 \\ -0.327980u^{56} - 0.616638u^{55} + \cdots + 0.0250809u + 2.21226 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -1.69640u^{56} - 3.90320u^{55} + \cdots - 8.13650u + 12.0154 \\ -0.122593u^{56} - 0.0875092u^{55} + \cdots + 1.34475u + 1.30123 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -\frac{6051548760743078920}{3602767560289372397}u^{56} - \frac{8079139122240889311}{3602767560289372397}u^{55} + \cdots + \frac{5905077153099193752 2}{3602767560289372397}u + \frac{45876737479885210010}{3602767560289372397}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{57} - 10u^{56} + \cdots + 1976u + 97$
c_2, c_6, c_7	$u^{57} + 2u^{56} + \cdots - 8u + 1$
c_3	$u^{57} - 2u^{56} + \cdots - 7940u + 797$
c_4, c_5, c_{10} c_{11}	$u^{57} - u^{56} + \cdots + 8u - 8$
c_8, c_9, c_{12}	$u^{57} - 4u^{56} + \cdots + 53u + 7$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{57} + 38y^{56} + \cdots + 7632286y - 9409$
c_2, c_6, c_7	$y^{57} + 54y^{56} + \cdots + 70y - 1$
c_3	$y^{57} + 14y^{56} + \cdots + 33141754y - 635209$
c_4, c_5, c_{10} c_{11}	$y^{57} - 71y^{56} + \cdots + 960y - 64$
c_8, c_9, c_{12}	$y^{57} - 60y^{56} + \cdots + 737y - 49$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.587296 + 0.676990I$ $a = -0.992081 + 0.406961I$ $b = 1.68131 - 0.13190I$	$16.3335 - 4.5705I$	$10.56013 + 0.39432I$
$u = -0.587296 - 0.676990I$ $a = -0.992081 - 0.406961I$ $b = 1.68131 + 0.13190I$	$16.3335 + 4.5705I$	$10.56013 - 0.39432I$
$u = -0.774867 + 0.380193I$ $a = 0.56831 - 1.72511I$ $b = -1.67101 - 0.16539I$	$15.3379 + 9.2274I$	$8.88615 - 5.62844I$
$u = -0.774867 - 0.380193I$ $a = 0.56831 + 1.72511I$ $b = -1.67101 + 0.16539I$	$15.3379 - 9.2274I$	$8.88615 + 5.62844I$
$u = 0.831356$ $a = -0.649521$ $b = -1.63354$	9.95066	7.73730
$u = 0.699421 + 0.384713I$ $a = -0.52691 - 1.35735I$ $b = 0.861493 - 0.565331I$	$6.65268 - 6.38038I$	$7.53136 + 6.91744I$
$u = 0.699421 - 0.384713I$ $a = -0.52691 + 1.35735I$ $b = 0.861493 + 0.565331I$	$6.65268 + 6.38038I$	$7.53136 - 6.91744I$
$u = -0.077518 + 1.200830I$ $a = -0.441853 + 0.527455I$ $b = 0.400809 + 0.440176I$	$1.84442 + 1.53939I$	0
$u = -0.077518 - 1.200830I$ $a = -0.441853 - 0.527455I$ $b = 0.400809 - 0.440176I$	$1.84442 - 1.53939I$	0
$u = -0.668942 + 0.396082I$ $a = -1.19802 + 1.74930I$ $b = 1.62450 + 0.07831I$	$8.50640 + 4.83173I$	$6.80279 - 5.63364I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.668942 - 0.396082I$ $a = -1.19802 - 1.74930I$ $b = 1.62450 - 0.07831I$	$8.50640 - 4.83173I$	$6.80279 + 5.63364I$
$u = 0.540422 + 0.553317I$ $a = 0.0227086 + 0.0584366I$ $b = -0.926422 - 0.476199I$	$7.32379 + 2.19374I$	$9.37328 - 0.81466I$
$u = 0.540422 - 0.553317I$ $a = 0.0227086 - 0.0584366I$ $b = -0.926422 + 0.476199I$	$7.32379 - 2.19374I$	$9.37328 + 0.81466I$
$u = -0.558250 + 0.496865I$ $a = 1.63555 - 0.91390I$ $b = -1.61760 + 0.02546I$	$8.95263 - 0.76794I$	$8.17007 - 0.54035I$
$u = -0.558250 - 0.496865I$ $a = 1.63555 + 0.91390I$ $b = -1.61760 - 0.02546I$	$8.95263 + 0.76794I$	$8.17007 + 0.54035I$
$u = -0.271718 + 1.223630I$ $a = -0.099179 - 0.634045I$ $b = -0.666764 - 0.175562I$	$5.53795 + 3.61211I$	0
$u = -0.271718 - 1.223630I$ $a = -0.099179 + 0.634045I$ $b = -0.666764 + 0.175562I$	$5.53795 - 3.61211I$	0
$u = 0.206793 + 1.247570I$ $a = 1.18787 + 1.19469I$ $b = -1.46087 + 0.04757I$	$7.77360 - 3.06996I$	0
$u = 0.206793 - 1.247570I$ $a = 1.18787 - 1.19469I$ $b = -1.46087 - 0.04757I$	$7.77360 + 3.06996I$	0
$u = -0.601751 + 0.417912I$ $a = 0.568911 - 0.774796I$ $b = 0.064485 - 0.762242I$	$4.25189 + 1.93714I$	$5.45403 - 3.24449I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.601751 - 0.417912I$ $a = 0.568911 + 0.774796I$ $b = 0.064485 + 0.762242I$	$4.25189 - 1.93714I$	$5.45403 + 3.24449I$
$u = 0.382994 + 1.209880I$ $a = -0.90161 - 1.11860I$ $b = 1.63564 - 0.03917I$	$13.6861 - 4.3558I$	0
$u = 0.382994 - 1.209880I$ $a = -0.90161 + 1.11860I$ $b = 1.63564 + 0.03917I$	$13.6861 + 4.3558I$	0
$u = -0.719732$ $a = 1.06954$ $b = 0.676169$	1.78784	6.76490
$u = 0.089195 + 1.288090I$ $a = 1.043920 - 0.621762I$ $b = -0.408562 - 0.408532I$	$4.90426 - 1.61227I$	0
$u = 0.089195 - 1.288090I$ $a = 1.043920 + 0.621762I$ $b = -0.408562 + 0.408532I$	$4.90426 + 1.61227I$	0
$u = 0.597316 + 0.299927I$ $a = 0.75088 + 1.25022I$ $b = -0.698631 + 0.329985I$	$0.45756 - 3.37876I$	$3.99050 + 8.66171I$
$u = 0.597316 - 0.299927I$ $a = 0.75088 - 1.25022I$ $b = -0.698631 - 0.329985I$	$0.45756 + 3.37876I$	$3.99050 - 8.66171I$
$u = 0.027116 + 1.350160I$ $a = -2.00735 - 1.30623I$ $b = 1.43950 - 0.16113I$	$10.95220 - 0.52770I$	0
$u = 0.027116 - 1.350160I$ $a = -2.00735 + 1.30623I$ $b = 1.43950 + 0.16113I$	$10.95220 + 0.52770I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.636143$ $a = 0.899971$ $b = 1.45279$	3.96768	-0.741900
$u = -0.206696 + 1.359410I$ $a = 0.316733 + 0.033558I$ $b = 0.059845 - 0.466800I$	$3.73122 + 3.46475I$	0
$u = -0.206696 - 1.359410I$ $a = 0.316733 - 0.033558I$ $b = 0.059845 + 0.466800I$	$3.73122 - 3.46475I$	0
$u = 0.186663 + 1.395260I$ $a = 1.59178 + 0.51826I$ $b = -0.833776 - 0.025880I$	$6.49247 - 1.98805I$	0
$u = 0.186663 - 1.395260I$ $a = 1.59178 - 0.51826I$ $b = -0.833776 + 0.025880I$	$6.49247 + 1.98805I$	0
$u = 0.22801 + 1.41445I$ $a = -1.60611 - 0.79064I$ $b = 0.802162 - 0.369008I$	$5.94609 - 6.40773I$	0
$u = 0.22801 - 1.41445I$ $a = -1.60611 + 0.79064I$ $b = 0.802162 + 0.369008I$	$5.94609 + 6.40773I$	0
$u = -0.545024 + 0.153075I$ $a = -0.433814 + 0.605711I$ $b = -0.165016 + 0.402005I$	$-1.091470 + 0.719453I$	$-4.41448 - 2.05784I$
$u = -0.545024 - 0.153075I$ $a = -0.433814 - 0.605711I$ $b = -0.165016 - 0.402005I$	$-1.091470 - 0.719453I$	$-4.41448 + 2.05784I$
$u = -0.22391 + 1.45684I$ $a = -0.429922 - 0.136736I$ $b = -0.103875 + 0.846114I$	$10.28030 + 4.97302I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.22391 - 1.45684I$ $a = -0.429922 + 0.136736I$ $b = -0.103875 - 0.846114I$	$10.28030 - 4.97302I$	0
$u = -0.24951 + 1.45945I$ $a = 2.70655 - 1.58438I$ $b = -1.65433 - 0.10023I$	$14.4830 + 8.1903I$	0
$u = -0.24951 - 1.45945I$ $a = 2.70655 + 1.58438I$ $b = -1.65433 + 0.10023I$	$14.4830 - 8.1903I$	0
$u = 0.26230 + 1.45913I$ $a = 1.44999 + 0.74312I$ $b = -0.870143 + 0.634792I$	$12.5896 - 9.8895I$	0
$u = 0.26230 - 1.45913I$ $a = 1.44999 - 0.74312I$ $b = -0.870143 - 0.634792I$	$12.5896 + 9.8895I$	0
$u = -0.19701 + 1.46962I$ $a = -3.02622 + 0.91279I$ $b = 1.66182 + 0.00364I$	$15.2659 + 1.9819I$	0
$u = -0.19701 - 1.46962I$ $a = -3.02622 - 0.91279I$ $b = 1.66182 - 0.00364I$	$15.2659 - 1.9819I$	0
$u = 0.17782 + 1.47551I$ $a = -1.061720 - 0.450691I$ $b = 1.047880 + 0.514208I$	$13.83430 - 0.35900I$	0
$u = 0.17782 - 1.47551I$ $a = -1.061720 + 0.450691I$ $b = 1.047880 - 0.514208I$	$13.83430 + 0.35900I$	0
$u = 0.381646 + 0.332840I$ $a = -0.862209 - 0.317769I$ $b = 0.612157 + 0.106984I$	$1.094310 + 0.315524I$	$8.13149 - 0.54452I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.381646 - 0.332840I$ $a = -0.862209 + 0.317769I$ $b = 0.612157 - 0.106984I$	$1.094310 - 0.315524I$	$8.13149 + 0.54452I$
$u = -0.29545 + 1.46817I$ $a = -2.14517 + 1.69345I$ $b = 1.67802 + 0.19089I$	$-18.1941 + 13.1223I$	0
$u = -0.29545 - 1.46817I$ $a = -2.14517 - 1.69345I$ $b = 1.67802 - 0.19089I$	$-18.1941 - 13.1223I$	0
$u = -0.14052 + 1.52399I$ $a = 2.53882 - 0.31091I$ $b = -1.72718 + 0.11615I$	$-15.8713 - 2.1155I$	0
$u = -0.14052 - 1.52399I$ $a = 2.53882 + 0.31091I$ $b = -1.72718 - 0.11615I$	$-15.8713 + 2.1155I$	0
$u = 0.357281$ $a = -1.94262$ $b = 0.364334$	1.04543	13.7800
$u = 0.132476$ $a = -8.67705$ $b = -1.39067$	6.53451	14.2000

II.

$$\boldsymbol{I^u_2 = \langle -u^2a-u^2+b-a+u-2,\ 2u^2a+a^2+u^2+2a-3u+2,\ u^3-u^2+2u-1\rangle}$$

(i) Arc colorings

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

(ii) Obstruction class $= 1$

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

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$(u^3+u^2-1)^2$
c_2	$(u^3+u^2+2u+1)^2$
c_3	$(u^3-u^2+1)^2$
c_4, c_5, c_{10} c_{11}	$(u^2-2)^3$
c_6, c_7	$(u^3-u^2+2u-1)^2$
c_8, c_9	$(u-1)^6$
c_{12}	$(u+1)^6$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3	$(y^3 - y^2 + 2y - 1)^2$
c_2, c_6, c_7	$(y^3 + 3y^2 + 2y - 1)^2$
c_4, c_5, c_{10} c_{11}	$(y - 2)^6$
c_8, c_9, c_{12}	$(y - 1)^6$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.215080 + 1.307140I$ $a = -0.57853 - 1.61567I$ $b = 1.41421$	$9.60386 - 2.82812I$	$11.50976 + 2.97945I$
$u = 0.215080 + 1.307140I$ $a = 1.90324 + 0.49111I$ $b = -1.41421$	$9.60386 - 2.82812I$	$11.50976 + 2.97945I$
$u = 0.215080 - 1.307140I$ $a = -0.57853 + 1.61567I$ $b = 1.41421$	$9.60386 + 2.82812I$	$11.50976 - 2.97945I$
$u = 0.215080 - 1.307140I$ $a = 1.90324 - 0.49111I$ $b = -1.41421$	$9.60386 + 2.82812I$	$11.50976 - 2.97945I$
$u = 0.569840$ $a = -0.257160$ $b = 1.41421$	5.46628	4.98050
$u = 0.569840$ $a = -2.39228$ $b = -1.41421$	5.46628	4.98050

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

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -6u^2 - 4u - 4$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.215080 + 1.307140I$ $a = -0.662359 - 0.562280I$ $b = 0$	$4.66906 + 2.82812I$	$6.83447 - 1.85489I$
$u = -0.215080 - 1.307140I$ $a = -0.662359 + 0.562280I$ $b = 0$	$4.66906 - 2.82812I$	$6.83447 + 1.85489I$
$u = -0.569840$ $a = 1.32472$ $b = 0$	0.531480	−3.66890

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u^3+u^2-1)^3)(u^{57}-10u^{56}+\cdots+1976u+97)$
c_2	$(u^3-u^2+2u-1)(u^3+u^2+2u+1)^2(u^{57}+2u^{56}+\cdots-8u+1)$
c_3	$((u^3-u^2+1)^2)(u^3+u^2-1)(u^{57}-2u^{56}+\cdots-7940u+797)$
c_4, c_5, c_{10} c_{11}	$u^3(u^2-2)^3(u^{57}-u^{56}+\cdots+8u-8)$
c_6, c_7	$((u^3-u^2+2u-1)^2)(u^3+u^2+2u+1)(u^{57}+2u^{56}+\cdots-8u+1)$
c_8, c_9	$((u-1)^6)(u+1)^3(u^{57}-4u^{56}+\cdots+53u+7)$
c_{12}	$((u-1)^3)(u+1)^6(u^{57}-4u^{56}+\cdots+53u+7)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y^3 - y^2 + 2y - 1)^3)(y^{57} + 38y^{56} + \cdots + 7632286y - 9409)$
c_2, c_6, c_7	$((y^3 + 3y^2 + 2y - 1)^3)(y^{57} + 54y^{56} + \cdots + 70y - 1)$
c_3	$((y^3 - y^2 + 2y - 1)^3)(y^{57} + 14y^{56} + \cdots + 3.31418 \times 10^7 y - 635209)$
c_4, c_5, c_{10} c_{11}	$y^3(y - 2)^6(y^{57} - 71y^{56} + \cdots + 960y - 64)$
c_8, c_9, c_{12}	$((y - 1)^9)(y^{57} - 60y^{56} + \cdots + 737y - 49)$