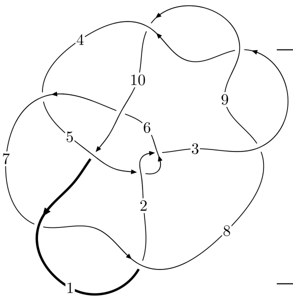
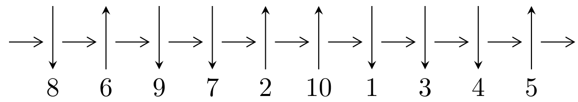
10_{106} ($K10a_{95}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u &= \langle -4.48988 \times 10^{22} u^{38} - 3.35873 \times 10^{21} u^{37} + \cdots + 1.23445 \times 10^{23} b - 2.68996 \times 10^{23}, \\
&\quad 7.60416 \times 10^{23} u^{38} - 5.87608 \times 10^{23} u^{37} + \cdots + 1.23445 \times 10^{23} a - 3.17189 \times 10^{24},\ u^{39} - u^{38} + \cdots - 12u + 1 \\
I_2^u &= \langle u^4 + u^3 - 2u^2 + b - u + 1,\ u^6 - u^5 - 4u^4 + 4u^3 + 3u^2 + a - 3u + 1,\ u^7 - 4u^5 + u^4 + 4u^3 - 2u^2 + 1 \rangle \\
I_3^u &= \langle u^3 + b - u,\ a + u,\ u^4 - u^3 - 1 \rangle \\
I_4^u &= \langle b,\ a - 1,\ u + 1 \rangle
\end{aligned}$$

* 4 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 51 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.

$$\boldsymbol{I_1^u = \langle -4.49\times10^{22}u^{38} - 3.36\times10^{21}u^{37} + \cdots + 1.23\times10^{23}b - 2.69\times10^{23},\ 7.60\times10^{23}u^{38} - 5.88\times10^{23}u^{37} + \cdots + 1.23\times10^{23}a - 3.17\times10^{24},\ u^{39} - u^{38} + \cdots - 12u + 1\rangle}$$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -6.15999u^{38} + 4.76010u^{37} + \cdots - 199.096u + 25.6949 \\ 0.363717u^{38} + 0.0272084u^{37} + \cdots - 15.2996u + 2.17908 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -u^2 + 1 \\ -u^4 + 2u^2 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 6.10160u^{38} - 5.05142u^{37} + \cdots + 243.206u - 37.0950 \\ -1.08737u^{38} + 0.953945u^{37} + \cdots - 39.0834u + 4.92208 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 5.01423u^{38} - 4.09747u^{37} + \cdots + 204.123u - 32.1729 \\ -1.08737u^{38} + 0.953945u^{37} + \cdots - 39.0834u + 4.92208 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 3.85842u^{38} - 3.05742u^{37} + \cdots + 127.285u - 20.9953 \\ 0.129593u^{38} + 0.0772817u^{37} + \cdots - 8.16390u + 2.14319 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -5.60239u^{38} + 4.54940u^{37} + \cdots - 197.298u + 25.4505 \\ 0.341348u^{38} + 0.0105311u^{37} + \cdots - 12.5393u + 1.90327 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -\frac{13850179882889290659134 88}{1234445094046979399719 01}u^{38} + \frac{9613547828747722979505 02}{1234445094046979399719 01}u^{37} + \cdots - \frac{4222332779892217514635 5847}{1234445094046979399719 01}u + \frac{4715398000555894355706 065}{1234445094046979399719 01}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7	$u^{39} - 5u^{38} + \cdots - 30u + 4$
c_2, c_5	$u^{39} - 2u^{38} + \cdots - 3u + 1$
c_3, c_8, c_9	$u^{39} - u^{38} + \cdots - 12u + 1$
c_4	$u^{39} - 3u^{38} + \cdots + 145u - 47$
c_6	$u^{39} - 3u^{38} + \cdots - 10u - 19$
c_{10}	$u^{39} + u^{38} + \cdots + 6u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^{39} - 27y^{38} + \cdots + 44y - 16$
c_2, c_5	$y^{39} - 18y^{38} + \cdots + 9y - 1$
c_3, c_8, c_9	$y^{39} - 43y^{38} + \cdots + 34y - 1$
c_4	$y^{39} - 11y^{38} + \cdots + 39261y - 2209$
c_6	$y^{39} + 9y^{38} + \cdots - 4118y - 361$
c_{10}	$y^{39} + y^{38} + \cdots + 76y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.526234+0.893865I$ $a=0.080741+1.260370I$ $b=0.77528-1.59615I$	$-0.67462+9.52466I$	$-2.84539-8.01548I$
$u=-0.526234-0.893865I$ $a=0.080741-1.260370I$ $b=0.77528+1.59615I$	$-0.67462-9.52466I$	$-2.84539+8.01548I$
$u=-0.891332$ $a=0.948472$ $b=-0.173901$	-1.64188	-6.13450
$u=-0.753681+0.913845I$ $a=-0.775515-0.367156I$ $b=-0.034229+1.332130I$	$-1.18856-3.53262I$	$0.+6.78010I$
$u=-0.753681-0.913845I$ $a=-0.775515+0.367156I$ $b=-0.034229-1.332130I$	$-1.18856+3.53262I$	$0.-6.78010I$
$u=0.449207+0.638779I$ $a=-0.54432+1.40207I$ $b=0.02023-1.45003I$	$3.29761-4.06547I$	$1.75322+6.53958I$
$u=0.449207-0.638779I$ $a=-0.54432-1.40207I$ $b=0.02023+1.45003I$	$3.29761+4.06547I$	$1.75322-6.53958I$
$u=0.587174+0.474790I$ $a=-0.976192-0.745918I$ $b=-0.028896-0.602541I$	$-3.42290-4.16688I$	$-6.75958+5.97205I$
$u=0.587174-0.474790I$ $a=-0.976192+0.745918I$ $b=-0.028896+0.602541I$	$-3.42290+4.16688I$	$-6.75958-5.97205I$
$u=0.556467+0.391333I$ $a=1.46828-1.00646I$ $b=0.434310+0.698478I$	$2.85501+0.22937I$	$3.06420+0.82307I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.556467 - 0.391333I$ $a = 1.46828 + 1.00646I$ $b = 0.434310 - 0.698478I$	$2.85501 - 0.22937I$	$3.06420 - 0.82307I$
$u = 1.345600 + 0.177030I$ $a = -0.659060 + 0.853206I$ $b = -0.77984 - 1.42084I$	$-3.63229 - 5.60644I$	0
$u = 1.345600 - 0.177030I$ $a = -0.659060 - 0.853206I$ $b = -0.77984 + 1.42084I$	$-3.63229 + 5.60644I$	0
$u = 1.357030 + 0.066004I$ $a = 0.377431 + 0.276144I$ $b = 0.13369 - 1.70062I$	$-4.94271 - 3.13295I$	0
$u = 1.357030 - 0.066004I$ $a = 0.377431 - 0.276144I$ $b = 0.13369 + 1.70062I$	$-4.94271 + 3.13295I$	0
$u = 1.347220 + 0.243173I$ $a = -0.228876 + 0.363453I$ $b = -0.82451 - 1.40522I$	$-5.00065 - 3.66933I$	0
$u = 1.347220 - 0.243173I$ $a = -0.228876 - 0.363453I$ $b = -0.82451 + 1.40522I$	$-5.00065 + 3.66933I$	0
$u = -1.379580 + 0.070494I$ $a = 0.730492 + 0.504077I$ $b = 0.243999 - 0.841162I$	$-2.64947 + 1.12815I$	0
$u = -1.379580 - 0.070494I$ $a = 0.730492 - 0.504077I$ $b = 0.243999 + 0.841162I$	$-2.64947 - 1.12815I$	0
$u = -0.123207 + 0.595163I$ $a = 0.73822 - 1.95025I$ $b = -0.332572 + 1.082270I$	$0.96132 + 2.87976I$	$1.76496 - 6.23197I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.123207 - 0.595163I$ $a = 0.73822 + 1.95025I$ $b = -0.332572 - 1.082270I$	$0.96132 - 2.87976I$	$1.76496 + 6.23197I$
$u = -1.43879 + 0.06242I$ $a = -0.797689 - 0.378346I$ $b = -1.78940 + 1.48271I$	$-6.97221 + 3.87850I$	0
$u = -1.43879 - 0.06242I$ $a = -0.797689 + 0.378346I$ $b = -1.78940 - 1.48271I$	$-6.97221 - 3.87850I$	0
$u = -0.241634 + 0.442757I$ $a = 0.755226 - 0.616591I$ $b = -0.040932 + 0.380173I$	$-0.205812 + 1.182100I$	$-2.82912 - 5.35064I$
$u = -0.241634 - 0.442757I$ $a = 0.755226 + 0.616591I$ $b = -0.040932 - 0.380173I$	$-0.205812 - 1.182100I$	$-2.82912 + 5.35064I$
$u = -1.50425 + 0.21931I$ $a = -0.643325 - 0.432545I$ $b = -0.52587 + 1.73147I$	$-3.11282 + 7.19611I$	0
$u = -1.50425 - 0.21931I$ $a = -0.643325 + 0.432545I$ $b = -0.52587 - 1.73147I$	$-3.11282 - 7.19611I$	0
$u = -1.51467 + 0.17480I$ $a = -0.366164 + 0.848258I$ $b = 0.067693 - 0.170797I$	$-10.26840 + 6.64183I$	0
$u = -1.51467 - 0.17480I$ $a = -0.366164 - 0.848258I$ $b = 0.067693 + 0.170797I$	$-10.26840 - 6.64183I$	0
$u = -1.51667 + 0.36861I$ $a = 0.642404 + 0.518029I$ $b = 1.68758 - 1.24610I$	$-7.37640 + 4.84807I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.51667 - 0.36861I$ $a = 0.642404 - 0.518029I$ $b = 1.68758 + 1.24610I$	$-7.37640 - 4.84807I$	0
$u = 1.54379 + 0.31697I$ $a = 0.708936 - 0.642910I$ $b = 1.36593 + 1.52871I$	$-7.3816 - 13.9330I$	0
$u = 1.54379 - 0.31697I$ $a = 0.708936 + 0.642910I$ $b = 1.36593 - 1.52871I$	$-7.3816 + 13.9330I$	0
$u = 1.63152 + 0.09989I$ $a = -0.115695 - 0.351183I$ $b = -0.353674 + 0.058988I$	$-10.12000 - 0.22050I$	0
$u = 1.63152 - 0.09989I$ $a = -0.115695 + 0.351183I$ $b = -0.353674 - 0.058988I$	$-10.12000 + 0.22050I$	0
$u = 1.64295$ $a = 0.177919$ $b = -0.647125$	-10.0861	0
$u = 0.207051 + 0.164027I$ $a = -1.65178 + 3.06553I$ $b = -0.98385 - 1.41829I$	$-1.44889 - 3.00326I$	$-6.47920 + 9.13782I$
$u = 0.207051 - 0.164027I$ $a = -1.65178 - 3.06553I$ $b = -0.98385 + 1.41829I$	$-1.44889 + 3.00326I$	$-6.47920 - 9.13782I$
$u = 0.195697$ $a = 7.38738$ $b = -0.248837$	2.69998	9.09120

II. $I_2^u = \langle u^4 + u^3 - 2u^2 + b - u + 1,\ u^6 - u^5 - 4u^4 + 4u^3 + 3u^2 + a - 3u + 1,\ u^7 - 4u^5 + u^4 + 4u^3 - 2u^2 + 1\rangle$

(i) Arc colorings

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

$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

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

$$a_6 = \begin{pmatrix} -u^6 + u^5 + 4u^4 - 4u^3 - 3u^2 + 3u - 1 \\ -u^4 - u^3 + 2u^2 + u - 1 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -u^2 + 1 \\ -u^4 + 2u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} u^6 - 4u^4 + 2u^3 + 4u^2 - 4u + 1 \\ -u^2 + 1 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^6 - 4u^4 + 2u^3 + 3u^2 - 4u + 2 \\ -u^2 + 1 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u^6 - u^5 - 3u^4 + 4u^3 - 3u + 2 \\ -u^4 - u^3 + 2u^2 + u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -u^6 + u^5 + 3u^4 - 4u^3 - u^2 + 3u - 1 \\ -u^4 + 2u^2 - 1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -u^6 + 4u^5 + 7u^4 - 13u^3 - 4u^2 + 7u - 9$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^7 - u^6 - 3u^5 + 2u^4 + 3u^3 - 3u^2 - u + 1$
c_2	$u^7 - u^6 - 3u^5 + 3u^4 + 2u^3 - 3u^2 - u + 1$
c_3	$u^7 - 4u^5 - u^4 + 4u^3 + 2u^2 - 1$
c_4	$u^7 - 2u^5 + 4u^4 - u^3 - 3u^2 + 3u - 1$
c_5	$u^7 + u^6 - 3u^5 - 3u^4 + 2u^3 + 3u^2 - u - 1$
c_6	$u^7 + u^4 - 2u^3 - 1$
c_7	$u^7 + u^6 - 3u^5 - 2u^4 + 3u^3 + 3u^2 - u - 1$
c_8, c_9	$u^7 - 4u^5 + u^4 + 4u^3 - 2u^2 + 1$
c_{10}	$u^7 + 2u^4 - u^3 - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^7 - 7y^6 + 19y^5 - 30y^4 + 29y^3 - 19y^2 + 7y - 1$
c_2, c_5	$y^7 - 7y^6 + 19y^5 - 29y^4 + 30y^3 - 19y^2 + 7y - 1$
c_3, c_8, c_9	$y^7 - 8y^6 + 24y^5 - 33y^4 + 20y^3 - 6y^2 + 4y - 1$
c_4	$y^7 - 4y^6 + 2y^5 - 6y^4 + 13y^3 - 7y^2 + 3y - 1$
c_6	$y^7 - 4y^5 - y^4 + 4y^3 + 2y^2 - 1$
c_{10}	$y^7 - 2y^5 - 4y^4 + y^3 + 4y^2 - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.25920$ $a = 1.35619$ $b = 0.394456$	-0.400829	2.74790
$u = 0.401963 + 0.546430I$ $a = 1.019580 - 0.650467I$ $b = -0.40274 + 1.44367I$	$-1.17508 + 2.13385I$	$-3.11487 - 0.61129I$
$u = 0.401963 - 0.546430I$ $a = 1.019580 + 0.650467I$ $b = -0.40274 - 1.44367I$	$-1.17508 - 2.13385I$	$-3.11487 + 0.61129I$
$u = 1.346460 + 0.204423I$ $a = -0.556014 + 0.539828I$ $b = -1.21748 - 1.74792I$	$-4.73997 - 4.82255I$	$-6.63814 + 6.34253I$
$u = 1.346460 - 0.204423I$ $a = -0.556014 - 0.539828I$ $b = -1.21748 + 1.74792I$	$-4.73997 + 4.82255I$	$-6.63814 - 6.34253I$
$u = -0.552010$ $a = -2.60549$ $b = -0.867226$	2.28642	-11.4800
$u = -1.68564$ $a = 0.322173$ $b = -0.286793$	-9.79470	9.23770

III. $\boldsymbol{I_3^u = \langle u^3 + b - u,\ a + u,\ u^4 - u^3 - 1\rangle}$

(i) Arc colorings

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

$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

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

$$a_6 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -u^2 + 1 \\ -u^3 + 2u^2 - 1 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -u^3 \\ -1 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -u^3 - 1 \\ -1 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u^3 + 1 \\ -u^3 + u^2 + u \end{pmatrix}$$

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

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -6$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$(y-1)^4$
c_2, c_4, c_5	$y^4 - 5y^3 + 6y^2 - 4y + 1$
c_3, c_6, c_8 c_9	$y^4 - y^3 - 2y^2 + 1$
c_{10}	$y^4 + 2y^3 + 3y^2 - 14y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.219447 + 0.914474I$ $a = -0.219447 - 0.914474I$ $b = 0.75943 + 1.54710I$	-1.64493	-6.00000
$u = 0.219447 - 0.914474I$ $a = -0.219447 + 0.914474I$ $b = 0.75943 - 1.54710I$	-1.64493	-6.00000
$u = -0.819173$ $a = 0.819173$ $b = -0.269472$	-1.64493	-6.00000
$u = 1.38028$ $a = -1.38028$ $b = -1.24938$	-1.64493	-6.00000

IV. $I_4^u = \langle b,\ a-1,\ u+1 \rangle$

(i) Arc colorings

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

(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 c_5, c_6, c_7 c_8, c_9	$u+1$
c_4	$u-1$
c_{10}	u

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3 c_4, c_5, c_6 c_7, c_8, c_9	$y - 1$
c_{10}	y

(vi) Complex Volumes and Cusp Shapes

Solutions to I_4^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.00000$ $a = 1.00000$ $b = 0$	-1.64493	-6.00000

V. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u+1)^5(u^7-u^6-3u^5+2u^4+3u^3-3u^2-u+1)$ $\cdot(u^{39}-5u^{38}+\cdots-30u+4)$
c_2	$(u+1)(u^4+u^3-2u^2+1)(u^7-u^6+\cdots-u+1)$ $\cdot(u^{39}-2u^{38}+\cdots-3u+1)$
c_3	$(u+1)(u^4-u^3-1)(u^7-4u^5-u^4+4u^3+2u^2-1)$ $\cdot(u^{39}-u^{38}+\cdots-12u+1)$
c_4	$(u-1)(u^4-u^3-2u^2+1)(u^7-2u^5+4u^4-u^3-3u^2+3u-1)$ $\cdot(u^{39}-3u^{38}+\cdots+145u-47)$
c_5	$(u+1)(u^4+u^3-2u^2+1)(u^7+u^6+\cdots-u-1)$ $\cdot(u^{39}-2u^{38}+\cdots-3u+1)$
c_6	$(u+1)(u^4-u^3-1)(u^7+u^4-2u^3-1)(u^{39}-3u^{38}+\cdots-10u-19)$
c_7	$(u+1)^5(u^7+u^6-3u^5-2u^4+3u^3+3u^2-u-1)$ $\cdot(u^{39}-5u^{38}+\cdots-30u+4)$
c_8, c_9	$(u+1)(u^4-u^3-1)(u^7-4u^5+u^4+4u^3-2u^2+1)$ $\cdot(u^{39}-u^{38}+\cdots-12u+1)$
c_{10}	$u(u^4+u^2+4u+1)(u^7+2u^4-u^3-1)(u^{39}+u^{38}+\cdots+6u+1)$

VI. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_7	$(y-1)^5(y^7-7y^6+19y^5-30y^4+29y^3-19y^2+7y-1)$ $\cdot(y^{39}-27y^{38}+\cdots+44y-16)$
c_2, c_5	$(y-1)(y^4-5y^3+6y^2-4y+1)$ $\cdot(y^7-7y^6+19y^5-29y^4+30y^3-19y^2+7y-1)$ $\cdot(y^{39}-18y^{38}+\cdots+9y-1)$
c_3, c_8, c_9	$(y-1)(y^4-y^3-2y^2+1)(y^7-8y^6+\cdots+4y-1)$ $\cdot(y^{39}-43y^{38}+\cdots+34y-1)$
c_4	$(y-1)(y^4-5y^3+6y^2-4y+1)$ $\cdot(y^7-4y^6+2y^5-6y^4+13y^3-7y^2+3y-1)$ $\cdot(y^{39}-11y^{38}+\cdots+39261y-2209)$
c_6	$(y-1)(y^4-y^3-2y^2+1)(y^7-4y^5-y^4+4y^3+2y^2-1)$ $\cdot(y^{39}+9y^{38}+\cdots-4118y-361)$
c_{10}	$y(y^4+2y^3+3y^2-14y+1)(y^7-2y^5-4y^4+y^3+4y^2-1)$ $\cdot(y^{39}+y^{38}+\cdots+76y-1)$