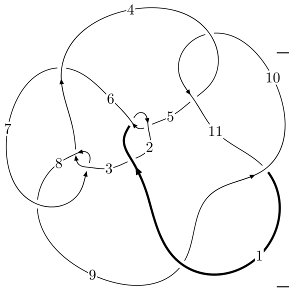
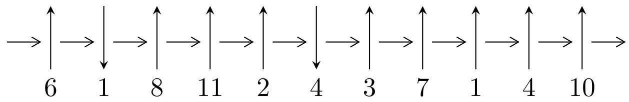
$11n_{103}$ ($K11n_{103}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u &= \langle -u^3+b+u,\ -u^{11}+3u^9+u^8-3u^7-2u^6-2u^5+u^4+2u^3+2u^2+2a+2u-1,\\
&\quad u^{12}-4u^{10}+7u^8-u^7-4u^6+3u^5-2u^4-3u^3+3u^2-1\rangle\\
I_2^u &= \langle 1323539668u^{27}+477420100u^{26}+\cdots+373862627b+2208818501,\\
&\quad 3623527383u^{27}+808013199u^{26}+\cdots+373862627a+4728861229,\ u^{28}+u^{27}+\cdots-u^2+1\rangle\\
I_3^u &= \langle -u^3+b+u,\ -u^3+u^2+a-1,\ u^4-u^2+1\rangle\\
I_4^u &= \langle b-u,\ u^3+u^2+a-u-1,\ u^4-u^2+1\rangle
\end{aligned}$$

* 4 irreducible components of $\dim_{\mathbb{C}}=0$, with total 48 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. $\boldsymbol{I_1^u = \langle -u^3 + b + u,\ -u^{11} + 3u^9 + \cdots + 2a - 1,\ u^{12} - 4u^{10} + \cdots + 3u^2 - 1\rangle}$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_1 = \begin{pmatrix} \frac{1}{2}u^{11} - \frac{3}{2}u^9 + \cdots - u + \frac{1}{2} \\ u^3 - u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} u^{11} - \frac{1}{2}u^{10} + \cdots - \frac{1}{2}u + \frac{1}{2} \\ -\frac{1}{2}u^{10} + \frac{1}{2}u^9 + \cdots - \frac{1}{2}u - \frac{1}{2} \end{pmatrix}$$

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

$$a_9 = \begin{pmatrix} u^3 \\ u^5 - u^3 + u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -\frac{1}{2}u^{11} + \frac{1}{2}u^{10} + \cdots - \frac{1}{2}u^2 - \frac{1}{2}u \\ u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -\frac{1}{2}u^{11} + \frac{1}{2}u^{10} + \cdots - \frac{1}{2}u^2 + \frac{1}{2}u \\ u \end{pmatrix}$$

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

$$a_5 = \begin{pmatrix} -\frac{1}{2}u^{11} + \frac{3}{2}u^9 + \cdots - 2u^2 + \frac{3}{2} \\ -u^2 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -\frac{1}{2}u^{11} + \frac{3}{2}u^9 + \cdots - 2u^2 + \frac{3}{2} \\ -u^2 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= u^{11} + 2u^{10} - u^9 - 7u^8 - 3u^7 + 10u^6 + 8u^5 - 5u^4 + 2u^3 - 8u + 9$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^{12} - 5u^{11} + \cdots + 20u - 4$
c_2	$u^{12} + 5u^{11} + \cdots - 88u + 16$
c_3, c_4, c_7 c_{10}	$u^{12} - 4u^{10} + 7u^8 + u^7 - 4u^6 - 3u^5 - 2u^4 + 3u^3 + 3u^2 - 1$
c_6	$u^{12} + 8u^{10} + \cdots - 2u + 1$
c_8, c_9, c_{11}	$u^{12} - 8u^{11} + \cdots - 6u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{12} + 5y^{11} + \cdots - 88y + 16$
c_2	$y^{12} + 5y^{11} + \cdots - 13088y + 256$
c_3, c_4, c_7 c_{10}	$y^{12} - 8y^{11} + \cdots - 6y + 1$
c_6	$y^{12} + 16y^{11} + \cdots - 10y + 1$
c_8, c_9, c_{11}	$y^{12} - 4y^{11} + \cdots - 10y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.070850 + 0.293331I$ $a = 0.88474 + 1.47446I$ $b = 0.119301 + 0.690537I$	$0.88385 - 3.90933I$	$11.22062 + 4.69963I$
$u = -1.070850 - 0.293331I$ $a = 0.88474 - 1.47446I$ $b = 0.119301 - 0.690537I$	$0.88385 + 3.90933I$	$11.22062 - 4.69963I$
$u = 0.123324 + 0.852412I$ $a = 0.190031 + 0.083600I$ $b = -0.39027 - 1.43289I$	$1.59916 - 2.93187I$	$4.52833 + 2.34392I$
$u = 0.123324 - 0.852412I$ $a = 0.190031 - 0.083600I$ $b = -0.39027 + 1.43289I$	$1.59916 + 2.93187I$	$4.52833 - 2.34392I$
$u = 1.18703$ $a = -0.319027$ $b = 0.485533$	5.86925	15.2180
$u = 0.583435 + 0.389720I$ $a = -0.490222 - 1.302820I$ $b = -0.650675 - 0.050933I$	$-2.15137 + 2.12179I$	$2.80850 - 2.85099I$
$u = 0.583435 - 0.389720I$ $a = -0.490222 + 1.302820I$ $b = -0.650675 + 0.050933I$	$-2.15137 - 2.12179I$	$2.80850 + 2.85099I$
$u = -1.237240 + 0.570642I$ $a = -1.14325 + 1.84850I$ $b = 0.55197 + 1.86409I$	$8.0502 - 13.4162I$	$9.70040 + 8.08040I$
$u = -1.237240 - 0.570642I$ $a = -1.14325 - 1.84850I$ $b = 0.55197 - 1.86409I$	$8.0502 + 13.4162I$	$9.70040 - 8.08040I$
$u = 1.278420 + 0.477758I$ $a = 0.80625 + 1.61595I$ $b = -0.06443 + 1.75567I$	$9.66215 + 6.36480I$	$11.90320 - 3.80747I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.278420 - 0.477758I$ $a = 0.80625 - 1.61595I$ $b = -0.06443 - 1.75567I$	$9.66215 - 6.36480I$	$11.90320 + 3.80747I$
$u = -0.541203$ $a = 0.823936$ $b = 0.382684$	0.811000	12.4600

II. $\boldsymbol{I_2^u = \langle 1.32\times10^9u^{27}+4.77\times10^8u^{26}+\cdots+3.74\times10^8b+2.21\times10^9,\ 3.62\times10^9u^{27}+8.08\times10^8u^{26}+\cdots+3.74\times10^8a+4.73\times10^9,\ u^{28}+u^{27}+\cdots-u^2+1\rangle}$

(i) Arc colorings

$$a_4 = \begin{pmatrix}1\\0\end{pmatrix}$$

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

$$a_1 = \begin{pmatrix}-9.69214u^{27}-2.16126u^{26}+\cdots+21.1172u-12.6487\\-3.54018u^{27}-1.27699u^{26}+\cdots+6.39747u-5.90810\end{pmatrix}$$

$$a_3 = \begin{pmatrix}1\\u^2\end{pmatrix}$$

$$a_2 = \begin{pmatrix}-11.1683u^{27}-2.69831u^{26}+\cdots+24.1271u-14.6661\\-2.00633u^{27}-0.821463u^{26}+\cdots+3.57032u-3.52639\end{pmatrix}$$

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

$$a_9 = \begin{pmatrix}u^3\\u^5-u^3+u\end{pmatrix}$$

$$a_{10} = \begin{pmatrix}8.82770u^{27}+2.98162u^{26}+\cdots-18.8225u+11.0259\\-1.96759u^{27}-0.358100u^{26}+\cdots+2.54082u-1.68118\end{pmatrix}$$

$$a_{11} = \begin{pmatrix}6.86011u^{27}+2.62352u^{26}+\cdots-16.2817u+9.34470\\-1.96759u^{27}-0.358100u^{26}+\cdots+2.54082u-1.68118\end{pmatrix}$$

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

$$a_5 = \begin{pmatrix}0.604072u^{27}-0.672673u^{26}+\cdots+2.58371u+1.13808\\4.82738u^{27}+1.39404u^{26}+\cdots-6.80258u+5.67111\end{pmatrix}$$

$$a_5 = \begin{pmatrix}0.604072u^{27}-0.672673u^{26}+\cdots+2.58371u+1.13808\\4.82738u^{27}+1.39404u^{26}+\cdots-6.80258u+5.67111\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= \frac{3205496750}{373862627}u^{27}+\frac{1277226600}{373862627}u^{26}+\cdots-\frac{4858013364}{373862627}u+\frac{5377018252}{373862627}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$(u^{14} + 2u^{13} + \cdots + 2u^2 + 1)^2$
c_2	$(u^{14} + 4u^{13} + \cdots + 4u + 1)^2$
c_3, c_4, c_7 c_{10}	$u^{28} - u^{27} + \cdots - u^2 + 1$
c_6	$u^{28} - 3u^{27} + \cdots - 64u + 17$
c_8, c_9, c_{11}	$u^{28} - 15u^{27} + \cdots - 2u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$(y^{14} + 4y^{13} + \cdots + 4y + 1)^2$
c_2	$(y^{14} + 16y^{13} + \cdots + 28y + 1)^2$
c_3, c_4, c_7 c_{10}	$y^{28} - 15y^{27} + \cdots - 2y + 1$
c_6	$y^{28} + 21y^{27} + \cdots - 3178y + 289$
c_8, c_9, c_{11}	$y^{28} - 3y^{27} + \cdots + 78y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.946438 + 0.337794I$ $a = 0.900026 + 0.777028I$ $b = 1.205620 - 0.251783I$	$0.225291 - 0.283453I$	$9.98682 + 1.62016I$
$u = -0.946438 - 0.337794I$ $a = 0.900026 - 0.777028I$ $b = 1.205620 + 0.251783I$	$0.225291 + 0.283453I$	$9.98682 - 1.62016I$
$u = -0.772691 + 0.621111I$ $a = 0.901192 + 0.236459I$ $b = 0.422650 - 0.531395I$	$0.225291 + 0.283453I$	$9.98682 - 1.62016I$
$u = -0.772691 - 0.621111I$ $a = 0.901192 - 0.236459I$ $b = 0.422650 + 0.531395I$	$0.225291 - 0.283453I$	$9.98682 + 1.62016I$
$u = 0.772763 + 0.566548I$ $a = 0.120522 - 0.536761I$ $b = -0.246731 + 0.289946I$	$-1.79770 + 2.20081I$	$2.89649 - 4.56299I$
$u = 0.772763 - 0.566548I$ $a = 0.120522 + 0.536761I$ $b = -0.246731 - 0.289946I$	$-1.79770 - 2.20081I$	$2.89649 + 4.56299I$
$u = -0.195025 + 0.938101I$ $a = 0.0007473 + 0.1043940I$ $b = -0.39042 + 1.67653I$	$4.87993 + 7.94699I$	$7.43585 - 5.15066I$
$u = -0.195025 - 0.938101I$ $a = 0.0007473 - 0.1043940I$ $b = -0.39042 - 1.67653I$	$4.87993 - 7.94699I$	$7.43585 + 5.15066I$
$u = 0.006608 + 0.931399I$ $a = 0.426144 + 0.112166I$ $b = -0.082738 + 1.405960I$	$5.74815 - 1.35811I$	$8.91559 + 0.70318I$
$u = 0.006608 - 0.931399I$ $a = 0.426144 - 0.112166I$ $b = -0.082738 - 1.405960I$	$5.74815 + 1.35811I$	$8.91559 - 0.70318I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.852569 + 0.695292I$ $a = 0.089649 - 0.218079I$ $b = -0.324576 - 0.830884I$	$0.44424 - 5.41715I$	$9.45457 + 7.85187I$
$u = -0.852569 - 0.695292I$ $a = 0.089649 + 0.218079I$ $b = -0.324576 + 0.830884I$	$0.44424 + 5.41715I$	$9.45457 - 7.85187I$
$u = 0.961456 + 0.569453I$ $a = 0.875348 - 0.814669I$ $b = 0.344071 - 0.029085I$	$-1.13610 + 2.11470I$	$7.32861 - 1.96391I$
$u = 0.961456 - 0.569453I$ $a = 0.875348 + 0.814669I$ $b = 0.344071 + 0.029085I$	$-1.13610 - 2.11470I$	$7.32861 + 1.96391I$
$u = 1.056900 + 0.376008I$ $a = 0.37905 - 1.49389I$ $b = 1.46933 - 0.48475I$	$0.44424 + 5.41715I$	$9.45457 - 7.85187I$
$u = 1.056900 - 0.376008I$ $a = 0.37905 + 1.49389I$ $b = 1.46933 + 0.48475I$	$0.44424 - 5.41715I$	$9.45457 + 7.85187I$
$u = -0.733151 + 0.047660I$ $a = 0.43746 - 2.41615I$ $b = -1.008020 - 0.825090I$	$-1.13610 - 2.11470I$	$7.32861 + 1.96391I$
$u = -0.733151 - 0.047660I$ $a = 0.43746 + 2.41615I$ $b = -1.008020 + 0.825090I$	$-1.13610 + 2.11470I$	$7.32861 - 1.96391I$
$u = -1.245820 + 0.402354I$ $a = 0.95707 - 1.63848I$ $b = -0.02380 - 1.73927I$	$5.74815 - 1.35811I$	$8.91559 + 0.70318I$
$u = -1.245820 - 0.402354I$ $a = 0.95707 + 1.63848I$ $b = -0.02380 + 1.73927I$	$5.74815 + 1.35811I$	$8.91559 - 0.70318I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.223100 + 0.521275I$ $a = -0.95325 - 1.80175I$ $b = 0.70249 - 1.65662I$	$4.87993 + 7.94699I$	$7.43585 - 5.15066I$
$u = 1.223100 - 0.521275I$ $a = -0.95325 + 1.80175I$ $b = 0.70249 + 1.65662I$	$4.87993 - 7.94699I$	$7.43585 + 5.15066I$
$u = 1.307490 + 0.340934I$ $a = 0.96986 + 1.76670I$ $b = 0.01577 + 1.74521I$	$9.73046 - 3.61450I$	$11.98207 + 2.36533I$
$u = 1.307490 - 0.340934I$ $a = 0.96986 - 1.76670I$ $b = 0.01577 - 1.74521I$	$9.73046 + 3.61450I$	$11.98207 - 2.36533I$
$u = -1.283470 + 0.468890I$ $a = -0.96559 + 1.49926I$ $b = 0.47177 + 1.36795I$	$9.73046 - 3.61450I$	$11.98207 + 2.36533I$
$u = -1.283470 - 0.468890I$ $a = -0.96559 - 1.49926I$ $b = 0.47177 - 1.36795I$	$9.73046 + 3.61450I$	$11.98207 - 2.36533I$
$u = 0.200841 + 0.299347I$ $a = 1.36178 + 1.98186I$ $b = -1.055410 - 0.266567I$	$-1.79770 - 2.20081I$	$2.89649 + 4.56299I$
$u = 0.200841 - 0.299347I$ $a = 1.36178 - 1.98186I$ $b = -1.055410 + 0.266567I$	$-1.79770 + 2.20081I$	$2.89649 - 4.56299I$

III. $\boldsymbol{I_3^u = \langle -u^3+b+u,\ -u^3+u^2+a-1,\ u^4-u^2+1\rangle}$

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -8u^2+8$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.866025 + 0.500000I$ $a = 0.500000 + 0.133975I$ $b = -0.866025 + 0.500000I$	$-1.64493 + 4.05977I$	$4.00000 - 6.92820I$
$u = 0.866025 - 0.500000I$ $a = 0.500000 - 0.133975I$ $b = -0.866025 - 0.500000I$	$-1.64493 - 4.05977I$	$4.00000 + 6.92820I$
$u = -0.866025 + 0.500000I$ $a = 0.50000 + 1.86603I$ $b = 0.866025 + 0.500000I$	$-1.64493 - 4.05977I$	$4.00000 + 6.92820I$
$u = -0.866025 - 0.500000I$ $a = 0.50000 - 1.86603I$ $b = 0.866025 - 0.500000I$	$-1.64493 + 4.05977I$	$4.00000 - 6.92820I$

IV. $I_4^u = \langle b - u,\ u^3 + u^2 + a - u - 1,\ u^4 - u^2 + 1\rangle$

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 4$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_4^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.866025 + 0.500000I$ $a = 1.36603 - 1.36603I$ $b = 0.866025 + 0.500000I$	-1.64493	4.00000
$u = 0.866025 - 0.500000I$ $a = 1.36603 + 1.36603I$ $b = 0.866025 - 0.500000I$	-1.64493	4.00000
$u = -0.866025 + 0.500000I$ $a = -0.366025 + 0.366025I$ $b = -0.866025 + 0.500000I$	-1.64493	4.00000
$u = -0.866025 - 0.500000I$ $a = -0.366025 - 0.366025I$ $b = -0.866025 - 0.500000I$	-1.64493	4.00000

V. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_5	$((u^2+1)^4)(u^{12}-5u^{11}+\cdots+20u-4)(u^{14}+2u^{13}+\cdots+2u^2+1)^2$
c_2	$((u+1)^8)(u^{12}+5u^{11}+\cdots-88u+16)(u^{14}+4u^{13}+\cdots+4u+1)^2$
c_3, c_4, c_7 c_{10}	$((u^4-u^2+1)^2)(u^{12}-4u^{10}+\cdots+3u^2-1)$ $\cdot\,(u^{28}-u^{27}+\cdots-u^2+1)$
c_6	$((u^4-u^2+1)^2)(u^{12}+8u^{10}+\cdots-2u+1)(u^{28}-3u^{27}+\cdots-64u+17)$
c_8, c_{11}	$((u^2-u+1)^4)(u^{12}-8u^{11}+\cdots-6u+1)(u^{28}-15u^{27}+\cdots-2u+1)$
c_9	$((u^2+u+1)^4)(u^{12}-8u^{11}+\cdots-6u+1)(u^{28}-15u^{27}+\cdots-2u+1)$

VI. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_5	$((y+1)^8)(y^{12}+5y^{11}+\cdots-88y+16)(y^{14}+4y^{13}+\cdots+4y+1)^2$
c_2	$((y-1)^8)(y^{12}+5y^{11}+\cdots-13088y+256)$ $\cdot(y^{14}+16y^{13}+\cdots+28y+1)^2$
c_3, c_4, c_7 c_{10}	$((y^2-y+1)^4)(y^{12}-8y^{11}+\cdots-6y+1)(y^{28}-15y^{27}+\cdots-2y+1)$
c_6	$((y^2-y+1)^4)(y^{12}+16y^{11}+\cdots-10y+1)$ $\cdot(y^{28}+21y^{27}+\cdots-3178y+289)$
c_8, c_9, c_{11}	$((y^2+y+1)^4)(y^{12}-4y^{11}+\cdots-10y+1)(y^{28}-3y^{27}+\cdots+78y+1)$