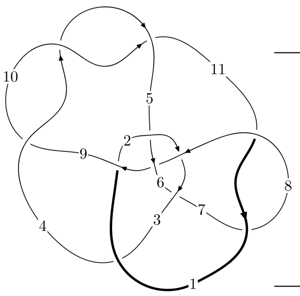
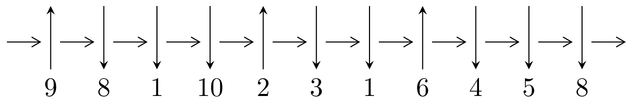
$11n_{158}$ $(K11n_{158})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle b-u,\ -159345685747u^{18} + 147982590951u^{17} + \cdots + 96727442787a + 357093230263,$$
$$u^{19} - u^{18} + \cdots - u + 1\rangle$$
$$I_2^u = \langle b+u,\ 4343u^{12} + 7110u^{11} + \cdots + 4787a + 1912,$$
$$u^{13} + u^{12} - u^{11} - 3u^{10} - 2u^9 + u^8 - 2u^6 + u^5 - 4u^4 - 2u^3 - 2u^2 - 1\rangle$$
$$I_3^u = \langle 1.31062 \times 10^{16}u^{15} - 1.74217 \times 10^{16}u^{14} + \cdots + 9.51505 \times 10^{17}b + 6.50537 \times 10^{17},$$
$$1.97533 \times 10^{15}u^{15} - 3.11116 \times 10^{14}u^{14} + \cdots + 5.49461 \times 10^{17}a + 2.28716 \times 10^{17},\ u^{16} - 3u^{15} + \cdots + 14u +$$

* 3 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. $\boldsymbol{I_1^u = \langle b - u,\ -1.59 \times 10^{11} u^{18} + 1.48 \times 10^{11} u^{17} + \cdots + 9.67 \times 10^{10} a + 3.57 \times 10^{11},\ u^{19} - u^{18} + \cdots - u + 1 \rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1.64737u^{18} - 1.52989u^{17} + \cdots + 32.1590u - 3.69175 \\ u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1.64737u^{18} - 1.52989u^{17} + \cdots + 31.1590u - 3.69175 \\ u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 2.27741u^{18} - 2.43525u^{17} + \cdots + 37.2324u - 9.52801 \\ 0.111340u^{18} - 0.0665068u^{17} + \cdots + 2.52989u + 0.117475 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -0.820898u^{18} + 0.672626u^{17} + \cdots - 23.6867u - 3.53398 \\ 0.162954u^{18} - 0.347555u^{17} + \cdots + 0.470733u - 0.393621 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -1.01209u^{18} + 0.851055u^{17} + \cdots - 23.4848u - 2.99209 \\ 0.340664u^{18} - 0.462435u^{17} + \cdots + 0.649162u - 0.380858 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 2.55969u^{18} - 2.59941u^{17} + \cdots + 42.1976u - 9.56837 \\ -0.0125024u^{18} - 0.0176043u^{17} + \cdots + 2.36573u - 0.000645074 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 2.20417u^{18} - 1.64059u^{17} + \cdots + 52.9687u + 7.25501 \\ -0.191192u^{18} + 0.178429u^{17} + \cdots + 0.201893u + 0.541893 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.426507u^{18} - 0.339257u^{17} + \cdots + 12.4593u + 5.79766 \\ -0.340664u^{18} + 0.462435u^{17} + \cdots - 0.649162u + 0.380858 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.426507u^{18} - 0.339257u^{17} + \cdots + 12.4593u + 5.79766 \\ -0.340664u^{18} + 0.462435u^{17} + \cdots - 0.649162u + 0.380858 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes
$= \frac{162836171512}{96727442787}u^{18} - \frac{43813217810}{32242480929}u^{17} + \cdots + \frac{1086609567736}{32242480929}u + \frac{428864721314}{96727442787}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^{19} - u^{18} + \cdots - u + 1$
c_2	$u^{19} - 10u^{17} + \cdots + 21u + 6$
c_3	$u^{19} - 9u^{18} + \cdots + 52u - 16$
c_4, c_9, c_{10}	$u^{19} - 9u^{18} + \cdots - 4u^2 + 16$
c_6, c_7, c_{11}	$u^{19} + u^{18} + \cdots + 2u + 1$
c_8	$u^{19} + 9u^{18} + \cdots + 34u + 4$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{19} + 15y^{18} + \cdots - 47y - 1$
c_2	$y^{19} - 20y^{18} + \cdots + 273y - 36$
c_3	$y^{19} - 25y^{18} + \cdots + 6064y - 256$
c_4, c_9, c_{10}	$y^{19} - 17y^{18} + \cdots + 128y - 256$
c_6, c_7, c_{11}	$y^{19} - 33y^{18} + \cdots + 12y - 1$
c_8	$y^{19} - y^{18} + \cdots - 116y - 16$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.074551+1.005150I$ $a=\ \ 0.755499-0.268182I$ $b=-0.074551+1.005150I$	$-6.47985-3.00781I$	$-9.19206+3.40012I$
$u=-0.074551-1.005150I$ $a=\ \ 0.755499+0.268182I$ $b=-0.074551-1.005150I$	$-6.47985+3.00781I$	$-9.19206-3.40012I$
$u=\ \ 0.719291+0.870215I$ $a=\ \ 0.618624+0.041528I$ $b=\ \ 0.719291+0.870215I$	$-0.22723+2.57483I$	$-7.79227-4.00370I$
$u=\ \ 0.719291-0.870215I$ $a=\ \ 0.618624-0.041528I$ $b=\ \ 0.719291-0.870215I$	$-0.22723-2.57483I$	$-7.79227+4.00370I$
$u=-0.015666+1.186340I$ $a=\ \ 1.00740-1.04818I$ $b=-0.015666+1.186340I$	$-8.13053+0.97689I$	$-10.22917-0.27205I$
$u=-0.015666-1.186340I$ $a=\ \ 1.00740+1.04818I$ $b=-0.015666-1.186340I$	$-8.13053-0.97689I$	$-10.22917+0.27205I$
$u=-0.799079$ $a=-0.714422$ $b=-0.799079$	-1.52055	-7.33430
$u=-0.197897+0.643434I$ $a=-0.839512+0.061465I$ $b=-0.197897+0.643434I$	$-0.928589+0.684123I$	$-8.21629-4.45735I$
$u=-0.197897-0.643434I$ $a=-0.839512-0.061465I$ $b=-0.197897-0.643434I$	$-0.928589-0.684123I$	$-8.21629+4.45735I$
$u=-0.78204+1.18371I$ $a=-0.553988+0.003237I$ $b=-0.78204+1.18371I$	$-5.79784-5.72974I$	$-14.4693+5.0563I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.78204-1.18371I$ $a=-0.553988-0.003237I$ $b=-0.78204-1.18371I$	$-5.79784+5.72974I$	$-14.4693-5.0563I$
$u=-0.58654+1.32638I$ $a=-1.071040-0.314706I$ $b=-0.58654+1.32638I$	$-8.63276-7.82560I$	$-8.78089+5.39108I$
$u=-0.58654-1.32638I$ $a=-1.071040+0.314706I$ $b=-0.58654-1.32638I$	$-8.63276+7.82560I$	$-8.78089-5.39108I$
$u=\ \ 0.70619+1.27768I$ $a=-0.185916-1.077090I$ $b=\ \ 0.70619+1.27768I$	$-15.6607+4.6824I$	$-10.38940-2.40952I$
$u=\ \ 0.70619-1.27768I$ $a=-0.185916+1.077090I$ $b=\ \ 0.70619-1.27768I$	$-15.6607-4.6824I$	$-10.38940+2.40952I$
$u=\ \ 0.050654+0.205531I$ $a=-4.15202+6.06789I$ $b=\ \ 0.050654+0.205531I$	$2.26122+2.63337I$	$2.15678+7.21953I$
$u=\ \ 0.050654-0.205531I$ $a=-4.15202-6.06789I$ $b=\ \ 0.050654-0.205531I$	$2.26122-2.63337I$	$2.15678-7.21953I$
$u=\ \ 1.08010+1.60653I$ $a=\ \ 0.778162-0.084178I$ $b=\ \ 1.08010+1.60653I$	$-16.5060+12.7254I$	$-9.92028-5.57941I$
$u=\ \ 1.08010-1.60653I$ $a=\ \ 0.778162+0.084178I$ $b=\ \ 1.08010-1.60653I$	$-16.5060-12.7254I$	$-9.92028+5.57941I$

II.
$$\boldsymbol{I^u_2 = \langle b+u,\ 4343u^{12}+7110u^{11}+\cdots+4787a+1912,\ u^{13}+u^{12}+\cdots-2u^2-1\rangle}$$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -0.907249u^{12} - 1.48527u^{11} + \cdots + 1.45874u - 0.399415 \\ -u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -0.907249u^{12} - 1.48527u^{11} + \cdots + 2.45874u - 0.399415 \\ -u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -1.64216u^{12} - 2.04115u^{11} + \cdots + 2.52663u - 1.91936 \\ 0.199081u^{12} + 0.339043u^{11} + \cdots + 0.0927512u - 0.578024 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -0.578024u^{12} - 1.37894u^{11} + \cdots + 1.60058u + 2.09275 \\ -0.300606u^{12} - 0.253812u^{11} + \cdots - 0.757050u + 0.0963025 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -0.137456u^{12} - 0.933988u^{11} + \cdots + 1.77961u + 1.19553 \\ -0.604972u^{12} - 0.393357u^{11} + \cdots - 0.316482u + 0.100689 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -1.74493u^{12} - 2.58450u^{11} + \cdots + 4.26154u - 2.09839 \\ 0.194694u^{12} + 0.639022u^{11} + \cdots - 0.0100272u - 1.01859 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -0.399415u^{12} - 1.30666u^{11} + \cdots + 5.21370u + 2.45874 \\ 0.440568u^{12} + 0.444955u^{11} + \cdots + 0.179027u - 0.897222 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 0.374556u^{12} + 0.339879u^{11} + \cdots + 1.20389u + 1.04470 \\ 0.604972u^{12} + 0.393357u^{11} + \cdots + 0.316482u - 0.100689 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 0.374556u^{12} + 0.339879u^{11} + \cdots + 1.20389u + 1.04470 \\ 0.604972u^{12} + 0.393357u^{11} + \cdots + 0.316482u - 0.100689 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{14164}{4787}u^{12} + \frac{37634}{4787}u^{11} + \cdots - \frac{78472}{4787}u - \frac{64919}{4787}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^{13}+u^{12}-u^{11}-3u^{10}-2u^{9}+u^{8}-2u^{6}+u^{5}-4u^{4}-2u^{3}-2u^{2}-1$
c_2	$u^{13}-3u^{11}-2u^{10}+3u^{9}+u^{8}-9u^{7}-11u^{6}+u^{5}-2u^{4}-10u^{3}-3u^{2}-1$
c_3	$u^{13}+10u^{12}+\cdots+19u+5$
c_4	$u^{13}-7u^{11}+\cdots+2u+1$
c_6, c_{11}	$u^{13}-u^{12}+\cdots+u-1$
c_7	$u^{13}+u^{12}+\cdots+u+1$
c_8	$u^{13}-6u^{12}+\cdots-5u^{2}+1$
c_9, c_{10}	$u^{13}-7u^{11}+\cdots+2u-1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{13} - 3y^{12} + \cdots - 4y - 1$
c_2	$y^{13} - 6y^{12} + \cdots - 6y - 1$
c_3	$y^{13} - 18y^{12} + \cdots - 59y - 25$
c_4, c_9, c_{10}	$y^{13} - 14y^{12} + \cdots + 12y - 1$
c_6, c_7, c_{11}	$y^{13} - 7y^{12} + \cdots - 9y - 1$
c_8	$y^{13} - 2y^{12} + \cdots + 10y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.900740 + 0.533669I$ $a = -1.166450 - 0.261249I$ $b = -0.900740 - 0.533669I$	$1.59640 + 3.38566I$	$2.41525 - 6.49353I$
$u = 0.900740 - 0.533669I$ $a = -1.166450 + 0.261249I$ $b = -0.900740 + 0.533669I$	$1.59640 - 3.38566I$	$2.41525 + 6.49353I$
$u = 0.134578 + 0.883277I$ $a = -1.058690 - 0.319537I$ $b = -0.134578 - 0.883277I$	$-8.02879 - 2.87155I$	$-15.3113 + 3.5915I$
$u = 0.134578 - 0.883277I$ $a = -1.058690 + 0.319537I$ $b = -0.134578 + 0.883277I$	$-8.02879 + 2.87155I$	$-15.3113 - 3.5915I$
$u = -0.529571 + 0.532870I$ $a = 0.059596 - 1.149930I$ $b = 0.529571 - 0.532870I$	$-5.39720 + 0.76633I$	$-5.46823 + 1.57837I$
$u = -0.529571 - 0.532870I$ $a = 0.059596 + 1.149930I$ $b = 0.529571 + 0.532870I$	$-5.39720 - 0.76633I$	$-5.46823 - 1.57837I$
$u = -1.310290 + 0.394846I$ $a = 0.714514 - 0.488710I$ $b = 1.310290 - 0.394846I$	$-1.52980 - 2.82140I$	$-9.56946 + 2.96660I$
$u = -1.310290 - 0.394846I$ $a = 0.714514 + 0.488710I$ $b = 1.310290 + 0.394846I$	$-1.52980 + 2.82140I$	$-9.56946 - 2.96660I$
$u = -0.736626 + 1.155190I$ $a = 0.633923 + 0.241978I$ $b = 0.736626 - 1.155190I$	$-4.89940 - 5.64504I$	$-5.13604 + 4.51836I$
$u = -0.736626 - 1.155190I$ $a = 0.633923 - 0.241978I$ $b = 0.736626 + 1.155190I$	$-4.89940 + 5.64504I$	$-5.13604 - 4.51836I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \ \ 0.266732 + 0.548396I$ $a = -1.77971 + 1.81477I$ $b = -0.266732 - 0.548396I$	$2.09623 + 2.92285I$	$-9.7624 - 12.7438I$
$u = \ \ 0.266732 - 0.548396I$ $a = -1.77971 - 1.81477I$ $b = -0.266732 + 0.548396I$	$2.09623 - 2.92285I$	$-9.7624 + 12.7438I$
$u = \ \ 1.54888$ $a = \ \ 0.193632$ $b = -1.54888$	-13.7330	-11.3360

III. $\boldsymbol{I_3^u =}$
$\boldsymbol{\langle 1.31\times10^{16}u^{15}-1.74\times10^{16}u^{14}+\cdots+9.52\times10^{17}b+6.51\times10^{17},\ 1.98\times10^{15}u^{15}-3.11\times10^{14}u^{14}+\cdots+5.49\times10^{17}a+2.29\times10^{17},\ u^{16}-3u^{15}+\cdots+14u+41\rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix}1\\0\end{pmatrix}$$

$$a_9 = \begin{pmatrix}0\\u\end{pmatrix}$$

$$a_1 = \begin{pmatrix}1\\u^2\end{pmatrix}$$

$$a_6 = \begin{pmatrix}-0.00359503u^{15}+0.000566220u^{14}+\cdots-0.579421u-0.416256\\-0.0137742u^{15}+0.0183096u^{14}+\cdots-1.40476u-0.683692\end{pmatrix}$$

$$a_5 = \begin{pmatrix}0.0101791u^{15}-0.0177434u^{14}+\cdots+0.825342u+0.267436\\-0.0137742u^{15}+0.0183096u^{14}+\cdots-1.40476u-0.683692\end{pmatrix}$$

$$a_8 = \begin{pmatrix}0.00188225u^{15}+0.00703654u^{14}+\cdots-0.906661u+0.946317\\0.00958945u^{15}-0.0187823u^{14}+\cdots+0.0486549u+0.591789\end{pmatrix}$$

$$a_3 = \begin{pmatrix}-0.0135877u^{15}+0.0698365u^{14}+\cdots-0.200013u+1.71159\\0.00578290u^{15}-0.00717672u^{14}+\cdots+1.12471u+0.593614\end{pmatrix}$$

$$a_4 = \begin{pmatrix}-0.0142111u^{15}+0.0554273u^{14}+\cdots-1.17466u-0.0740275\\0.0136940u^{15}-0.0307409u^{14}+\cdots+1.37818u+1.26107\end{pmatrix}$$

$$a_7 = \begin{pmatrix}0.0120905u^{15}-0.00811315u^{14}+\cdots-0.603268u+2.05812\\0.000452209u^{15}-0.00935974u^{14}+\cdots-0.586534u-0.0426882\end{pmatrix}$$

$$a_{11} = \begin{pmatrix}0.0142111u^{15}-0.0554273u^{14}+\cdots+1.17466u+0.0740275\\-0.000623414u^{15}-0.0144091u^{14}+\cdots-0.974645u-1.78562\end{pmatrix}$$

$$a_{10} = \begin{pmatrix}0.0101791u^{15}-0.0177434u^{14}+\cdots+0.825342u+0.267436\\-0.000703594u^{15}-0.0268404u^{14}+\cdots-0.00122333u-1.20825\end{pmatrix}$$

$$a_{10} = \begin{pmatrix}0.0101791u^{15}-0.0177434u^{14}+\cdots+0.825342u+0.267436\\-0.000703594u^{15}-0.0268404u^{14}+\cdots-0.00122333u-1.20825\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes
$= \frac{1227691828059108}{13401481882079569}u^{15} - \frac{4398465163137376}{13401481882079569}u^{14} + \cdots + \frac{68931370501080476}{13401481882079569}u - \frac{199658948531840914}{13401481882079569}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^{16} - 3u^{15} + \cdots + 14u + 41$
c_2	$u^{16} - u^{15} + \cdots - 398u + 359$
c_3	$(u^4 + 3u^3 + u^2 - 2u + 1)^4$
c_4, c_9, c_{10}	$(u^2 + u - 1)^8$
c_6, c_7, c_{11}	$u^{16} - u^{15} + \cdots - 314u + 59$
c_8	$(u^4 - u^3 + u^2 + 1)^4$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{16} - y^{15} + \cdots + 6528y + 1681$
c_2	$y^{16} - 13y^{15} + \cdots - 519558y + 128881$
c_3	$(y^4 - 7y^3 + 15y^2 - 2y + 1)^4$
c_4, c_9, c_{10}	$(y^2 - 3y + 1)^8$
c_6, c_7, c_{11}	$y^{16} - 21y^{15} + \cdots - 63668y + 3481$
c_8	$(y^4 + y^3 + 3y^2 + 2y + 1)^4$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.070726 + 1.109990I$ $a = -0.866375 + 0.712201I$ $b = -0.71670 - 1.63688I$	$-7.02670 + 3.16396I$	$-10.17326 - 2.56480I$
$u = 0.070726 - 1.109990I$ $a = -0.866375 - 0.712201I$ $b = -0.71670 + 1.63688I$	$-7.02670 - 3.16396I$	$-10.17326 + 2.56480I$
$u = 0.779961 + 0.810134I$ $a = 0.678421 + 0.218895I$ $b = 2.29306 - 1.45821I$	$-14.02850 + 1.41510I$	$-13.8267 - 4.9087I$
$u = 0.779961 - 0.810134I$ $a = 0.678421 - 0.218895I$ $b = 2.29306 + 1.45821I$	$-14.02850 - 1.41510I$	$-13.8267 + 4.9087I$
$u = -0.749741 + 0.435456I$ $a = 1.37743 - 0.41545I$ $b = 0.996480 - 0.636712I$	$0.86898 - 3.16396I$	$-10.17326 + 2.56480I$
$u = -0.749741 - 0.435456I$ $a = 1.37743 + 0.41545I$ $b = 0.996480 + 0.636712I$	$0.86898 + 3.16396I$	$-10.17326 - 2.56480I$
$u = 0.996480 + 0.636712I$ $a = -1.021930 - 0.261538I$ $b = -0.749741 - 0.435456I$	$0.86898 + 3.16396I$	$-10.17326 - 2.56480I$
$u = 0.996480 - 0.636712I$ $a = -1.021930 + 0.261538I$ $b = -0.749741 + 0.435456I$	$0.86898 - 3.16396I$	$-10.17326 + 2.56480I$
$u = -0.062069 + 0.700905I$ $a = -1.063840 - 0.407726I$ $b = -1.11172 - 0.94845I$	$-6.13277 - 1.41510I$	$-13.8267 + 4.9087I$
$u = -0.062069 - 0.700905I$ $a = -1.063840 + 0.407726I$ $b = -1.11172 + 0.94845I$	$-6.13277 + 1.41510I$	$-13.8267 - 4.9087I$

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.11172 + 0.94845I$ $a = 0.136782 - 0.531259I$ $b = -0.062069 - 0.700905I$	$-6.13277 + 1.41510I$	$-13.8267 - 4.9087I$
$u = -1.11172 - 0.94845I$ $a = 0.136782 + 0.531259I$ $b = -0.062069 + 0.700905I$	$-6.13277 - 1.41510I$	$-13.8267 + 4.9087I$
$u = -0.71670 + 1.63688I$ $a = 0.658359 + 0.232127I$ $b = 0.070726 - 1.109990I$	$-7.02670 - 3.16396I$	$-10.17326 + 2.56480I$
$u = -0.71670 - 1.63688I$ $a = 0.658359 - 0.232127I$ $b = 0.070726 + 1.109990I$	$-7.02670 + 3.16396I$	$-10.17326 - 2.56480I$
$u = 2.29306 + 1.45821I$ $a = -0.033000 - 0.293154I$ $b = 0.779961 - 0.810134I$	$-14.02850 - 1.41510I$	$-13.8267 + 4.9087I$
$u = 2.29306 - 1.45821I$ $a = -0.033000 + 0.293154I$ $b = 0.779961 + 0.810134I$	$-14.02850 + 1.41510I$	$-13.8267 - 4.9087I$

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_5	$(u^{13} + u^{12} - u^{11} - 3u^{10} - 2u^9 + u^8 - 2u^6 + u^5 - 4u^4 - 2u^3 - 2u^2 - 1)$ $\cdot (u^{16} - 3u^{15} + \cdots + 14u + 41)(u^{19} - u^{18} + \cdots - u + 1)$
c_2	$(u^{13} - 3u^{11} - 2u^{10} + 3u^9 + u^8 - 9u^7 - 11u^6 + u^5 - 2u^4 - 10u^3 - 3u^2 - 1)$ $\cdot (u^{16} - u^{15} + \cdots - 398u + 359)(u^{19} - 10u^{17} + \cdots + 21u + 6)$
c_3	$((u^4 + 3u^3 + u^2 - 2u + 1)^4)(u^{13} + 10u^{12} + \cdots + 19u + 5)$ $\cdot (u^{19} - 9u^{18} + \cdots + 52u - 16)$
c_4	$((u^2 + u - 1)^8)(u^{13} - 7u^{11} + \cdots + 2u + 1)(u^{19} - 9u^{18} + \cdots - 4u^2 + 16)$
c_6, c_{11}	$(u^{13} - u^{12} + \cdots + u - 1)(u^{16} - u^{15} + \cdots - 314u + 59)$ $\cdot (u^{19} + u^{18} + \cdots + 2u + 1)$
c_7	$(u^{13} + u^{12} + \cdots + u + 1)(u^{16} - u^{15} + \cdots - 314u + 59)$ $\cdot (u^{19} + u^{18} + \cdots + 2u + 1)$
c_8	$((u^4 - u^3 + u^2 + 1)^4)(u^{13} - 6u^{12} + \cdots - 5u^2 + 1)$ $\cdot (u^{19} + 9u^{18} + \cdots + 34u + 4)$
c_9, c_{10}	$((u^2 + u - 1)^8)(u^{13} - 7u^{11} + \cdots + 2u - 1)(u^{19} - 9u^{18} + \cdots - 4u^2 + 16)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_5	$(y^{13} - 3y^{12} + \cdots - 4y - 1)(y^{16} - y^{15} + \cdots + 6528y + 1681)$ $\cdot (y^{19} + 15y^{18} + \cdots - 47y - 1)$
c_2	$(y^{13} - 6y^{12} + \cdots - 6y - 1)(y^{16} - 13y^{15} + \cdots - 519558y + 128881)$ $\cdot (y^{19} - 20y^{18} + \cdots + 273y - 36)$
c_3	$((y^4 - 7y^3 + 15y^2 - 2y + 1)^4)(y^{13} - 18y^{12} + \cdots - 59y - 25)$ $\cdot (y^{19} - 25y^{18} + \cdots + 6064y - 256)$
c_4, c_9, c_{10}	$((y^2 - 3y + 1)^8)(y^{13} - 14y^{12} + \cdots + 12y - 1)$ $\cdot (y^{19} - 17y^{18} + \cdots + 128y - 256)$
c_6, c_7, c_{11}	$(y^{13} - 7y^{12} + \cdots - 9y - 1)(y^{16} - 21y^{15} + \cdots - 63668y + 3481)$ $\cdot (y^{19} - 33y^{18} + \cdots + 12y - 1)$
c_8	$((y^4 + y^3 + 3y^2 + 2y + 1)^4)(y^{13} - 2y^{12} + \cdots + 10y - 1)$ $\cdot (y^{19} - y^{18} + \cdots - 116y - 16)$