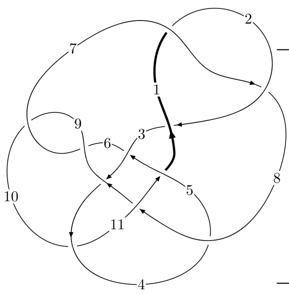
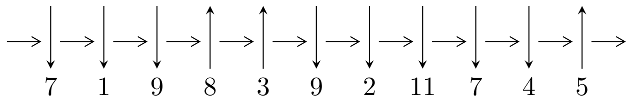
$11n_{146}$ ($K11n_{146}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle 9u^{21} - 99u^{20} + \cdots + 8b + 344,\ 63u^{21} - 461u^{20} + \cdots + 16a + 368,\ u^{22} - 9u^{21} + \cdots + 80u - 16\rangle$$

$$I_2^u = \langle -u^{11} + 4u^9 + u^8 - 7u^7 - 2u^6 + 8u^5 + 4u^4 - 6u^3 - 5u^2 + b + 2u + 3,\ u^{14} + 2u^{13} + \cdots + 2a - 4,$$
$$u^{15} - 5u^{13} - u^{12} + 12u^{11} + 3u^{10} - 19u^9 - 7u^8 + 21u^7 + 11u^6 - 16u^5 - 12u^4 + 8u^3 + 7u^2 - 2u - 2\rangle$$

$$I_3^u = \langle -34116957547a^7u^2 + 99566701011a^6u^2 + \cdots + 1815673106251a + 882543035301,$$
$$3a^7u^2 + 7a^6u^2 + \cdots - 56a + 65,\ u^3 + u^2 - 1\rangle$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 61 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. $\boldsymbol{I_1^u = \langle 9u^{21} - 99u^{20} + \cdots + 8b + 344,\ 63u^{21} - 461u^{20} + \cdots + 16a + 368,\ u^{22} - 9u^{21} + \cdots + 80u - 16\rangle}$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u^2 + 1 \\ u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -\frac{63}{16}u^{21} + \frac{461}{16}u^{20} + \cdots + \frac{229}{2}u - 23 \\ -\frac{9}{8}u^{21} + \frac{99}{8}u^{20} + \cdots + 175u - 43 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -\frac{27}{16}u^{21} + \frac{241}{16}u^{20} + \cdots + \frac{323}{2}u - 41 \\ \frac{53}{8}u^{21} - \frac{423}{8}u^{20} + \cdots - 356u + 79 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 9u^{21} - \frac{557}{8}u^{20} + \cdots - \frac{1413}{4}u + \frac{135}{2} \\ -\frac{7}{8}u^{21} + \frac{31}{8}u^{20} + \cdots - \frac{225}{2}u + 38 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -0.0625000u^{21} + 2.06250u^{20} + \cdots + 41.2500u - 11.5000 \\ \frac{19}{4}u^{21} - \frac{79}{2}u^{20} + \cdots - \frac{623}{2}u + 75 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} \frac{27}{16}u^{21} - \frac{241}{16}u^{20} + \cdots - \frac{323}{2}u + 40 \\ -\frac{53}{8}u^{21} + \frac{423}{8}u^{20} + \cdots + 357u - 79 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -0.0625000u^{21} + 2.06250u^{20} + \cdots + 41.2500u - 11.5000 \\ \frac{17}{2}u^{21} - \frac{271}{4}u^{20} + \cdots - \frac{865}{2}u + 99 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -0.0625000u^{21} + 2.06250u^{20} + \cdots + 41.2500u - 11.5000 \\ \frac{17}{2}u^{21} - \frac{271}{4}u^{20} + \cdots - \frac{865}{2}u + 99 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -\frac{39}{2}u^{21} + \frac{301}{2}u^{20} + \cdots + 914u - 202$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7	$u^{22} - 9u^{21} + \cdots + 80u - 16$
c_2	$u^{22} + 11u^{21} + \cdots + 1408u + 256$
c_3, c_6, c_9	$u^{22} + 18u^{20} + \cdots - 3u - 1$
c_4, c_{11}	$u^{22} - 6u^{20} + \cdots + 4u - 1$
c_5	$u^{22} + 12u^{21} + \cdots + 672u + 64$
c_8	$u^{22} - 12u^{21} + \cdots - 64u + 8$
c_{10}	$u^{22} + u^{21} + \cdots - 2u^2 - 10$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^{22} - 11y^{21} + \cdots - 1408y + 256$
c_2	$y^{22} + y^{21} + \cdots - 663552y + 65536$
c_3, c_6, c_9	$y^{22} + 36y^{21} + \cdots + 9y + 1$
c_4, c_{11}	$y^{22} - 12y^{21} + \cdots - 66y + 1$
c_5	$y^{22} - 26y^{21} + \cdots - 273920y + 4096$
c_8	$y^{22} - 2y^{21} + \cdots + 224y + 64$
c_{10}	$y^{22} + 19y^{21} + \cdots + 40y + 100$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.066710 + 0.226222I$ $a = -0.351526 + 0.307053I$ $b = -0.539318 + 0.910382I$	$-2.44040 + 0.11720I$	$-7.20404 - 1.75445I$
$u = -1.066710 - 0.226222I$ $a = -0.351526 - 0.307053I$ $b = -0.539318 - 0.910382I$	$-2.44040 - 0.11720I$	$-7.20404 + 1.75445I$
$u = 1.039800 + 0.529986I$ $a = 0.729503 + 1.140060I$ $b = -0.827030 + 0.144364I$	$0.80566 - 4.34766I$	$-4.70703 + 6.76579I$
$u = 1.039800 - 0.529986I$ $a = 0.729503 - 1.140060I$ $b = -0.827030 - 0.144364I$	$0.80566 + 4.34766I$	$-4.70703 - 6.76579I$
$u = 0.392350 + 0.705715I$ $a = -1.47104 - 0.61591I$ $b = 0.989758 + 0.677091I$	$1.86600 + 2.08328I$	$1.28577 - 1.87912I$
$u = 0.392350 - 0.705715I$ $a = -1.47104 + 0.61591I$ $b = 0.989758 - 0.677091I$	$1.86600 - 2.08328I$	$1.28577 + 1.87912I$
$u = 0.583477 + 1.050930I$ $a = 0.954459 + 0.738545I$ $b = -1.41570 - 0.82771I$	$11.22610 + 7.92016I$	$-1.17318 - 3.44504I$
$u = 0.583477 - 1.050930I$ $a = 0.954459 - 0.738545I$ $b = -1.41570 + 0.82771I$	$11.22610 - 7.92016I$	$-1.17318 + 3.44504I$
$u = 0.498409 + 0.620816I$ $a = -1.379510 + 0.247291I$ $b = 0.877040 - 0.154406I$	$2.40742 - 0.20200I$	$-0.358944 + 0.576250I$
$u = 0.498409 - 0.620816I$ $a = -1.379510 - 0.247291I$ $b = 0.877040 + 0.154406I$	$2.40742 + 0.20200I$	$-0.358944 - 0.576250I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.091100 + 0.568772I$ $a = 1.66508 + 1.05767I$ $b = -1.084320 + 0.882593I$	$-0.17078 - 6.97976I$	$-0.36212 + 5.29220I$
$u = 1.091100 - 0.568772I$ $a = 1.66508 - 1.05767I$ $b = -1.084320 - 0.882593I$	$-0.17078 + 6.97976I$	$-0.36212 - 5.29220I$
$u = 0.520231 + 1.151080I$ $a = 0.694248 + 0.193737I$ $b = -1.102170 - 0.272719I$	$10.39030 - 0.61941I$	$1.005762 + 0.209971I$
$u = 0.520231 - 1.151080I$ $a = 0.694248 - 0.193737I$ $b = -1.102170 + 0.272719I$	$10.39030 + 0.61941I$	$1.005762 - 0.209971I$
$u = 1.154680 + 0.769733I$ $a = -1.41430 - 0.79322I$ $b = 1.38480 - 1.09712I$	$9.4240 - 14.4970I$	$-3.20540 + 7.40924I$
$u = 1.154680 - 0.769733I$ $a = -1.41430 + 0.79322I$ $b = 1.38480 + 1.09712I$	$9.4240 + 14.4970I$	$-3.20540 - 7.40924I$
$u = 1.21138 + 0.80873I$ $a = -0.770380 - 0.556560I$ $b = 0.946982 - 0.664925I$	$8.24676 - 6.35399I$	$-2.34309 + 5.14871I$
$u = 1.21138 - 0.80873I$ $a = -0.770380 + 0.556560I$ $b = 0.946982 + 0.664925I$	$8.24676 + 6.35399I$	$-2.34309 - 5.14871I$
$u = -1.46566 + 0.12857I$ $a = 0.213752 + 0.149488I$ $b = 0.844485 + 0.429706I$	$2.91041 + 4.96923I$	$-3.04819 - 6.01952I$
$u = -1.46566 - 0.12857I$ $a = 0.213752 - 0.149488I$ $b = 0.844485 - 0.429706I$	$2.91041 - 4.96923I$	$-3.04819 + 6.01952I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.492053$ $a = -0.403784$ $b = -0.296446$	-0.825428	-11.7690
$u = 1.57389$ $a = 0.163193$ $b = 0.147402$	-7.90371	-59.0100

II.

$\boldsymbol{I_2^u = \langle -u^{11}+4u^9+\cdots+b+3,\ u^{14}+2u^{13}+\cdots+2a-4,\ u^{15}-5u^{13}+\cdots-2u-2\rangle}$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u^2+1 \\ u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -\frac{1}{2}u^{14} - u^{13} + \cdots - \frac{13}{2}u + 2 \\ u^{11} - 4u^9 - u^8 + 7u^7 + 2u^6 - 8u^5 - 4u^4 + 6u^3 + 5u^2 - 2u - 3 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u \\ -u^3+u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -\frac{1}{2}u^{14} - u^{13} + \cdots - \frac{7}{2}u + 2 \\ -u^{14} + 5u^{12} + \cdots - 5u - 3 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} \frac{5}{2}u^{14} - \frac{23}{2}u^{12} + \cdots + \frac{9}{2}u - 5 \\ u^{14} + 2u^{13} + \cdots + 4u + 5 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -\frac{3}{2}u^{14} + u^{13} + \cdots - \frac{7}{2}u + 2 \\ 4u^{14} + 3u^{13} + \cdots + 12u + 5 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -\frac{1}{2}u^{14} - u^{13} + \cdots - \frac{7}{2}u + 1 \\ -u^{14} + 5u^{12} + \cdots - 4u - 3 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -\frac{3}{2}u^{14} + u^{13} + \cdots - \frac{7}{2}u + 2 \\ 4u^{14} + 4u^{13} + \cdots + 11u + 7 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -\frac{3}{2}u^{14} + u^{13} + \cdots - \frac{7}{2}u + 2 \\ 4u^{14} + 4u^{13} + \cdots + 11u + 7 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -8u^{14} - 11u^{13} + 37u^{12} + 56u^{11} - 69u^{10} - 119u^9 + 89u^8 + 182u^7 - 56u^6 - 195u^5 - 6u^4 + 135u^3 + 41u^2 - 48u - 22$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{15} - 5u^{13} + \cdots - 2u - 2$
c_2	$u^{15} + 10u^{14} + \cdots + 32u + 4$
c_3, c_9	$u^{15} + 4u^{13} + \cdots + u - 1$
c_4, c_{11}	$u^{15} + 2u^{13} + \cdots + 4u - 1$
c_5	$u^{15} - 11u^{14} + \cdots + 73u - 25$
c_6	$u^{15} + 4u^{13} + \cdots + u + 1$
c_7	$u^{15} - 5u^{13} + \cdots - 2u + 2$
c_8	$u^{15} - 7u^{14} + \cdots + 3u^2 - 1$
c_{10}	$u^{15} + u^{14} + \cdots + 2u + 2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^{15} - 10y^{14} + \cdots + 32y - 4$
c_2	$y^{15} - 2y^{14} + \cdots - 8y - 16$
c_3, c_6, c_9	$y^{15} + 8y^{14} + \cdots + 11y - 1$
c_4, c_{11}	$y^{15} + 4y^{14} + \cdots + 14y - 1$
c_5	$y^{15} - 19y^{14} + \cdots + 4329y - 625$
c_8	$y^{15} - 3y^{14} + \cdots + 6y - 1$
c_{10}	$y^{15} + 7y^{14} + \cdots + 39y^2 - 4$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.945062 + 0.354082I$ $a = 0.565133 + 0.388167I$ $b = 0.570749 + 1.243190I$	$-3.02280 + 1.54146I$	$-6.80860 + 0.33073I$
$u = 0.945062 - 0.354082I$ $a = 0.565133 - 0.388167I$ $b = 0.570749 - 1.243190I$	$-3.02280 - 1.54146I$	$-6.80860 - 0.33073I$
$u = -0.573037 + 0.772166I$ $a = 0.944181 - 0.805222I$ $b = -0.884792 + 0.570619I$	$0.37010 - 2.03676I$	$-5.30954 + 3.27219I$
$u = -0.573037 - 0.772166I$ $a = 0.944181 + 0.805222I$ $b = -0.884792 - 0.570619I$	$0.37010 + 2.03676I$	$-5.30954 - 3.27219I$
$u = 0.869875 + 0.302392I$ $a = 0.175063 + 0.651509I$ $b = -0.271019 + 1.145180I$	$-2.66889 - 4.30403I$	$-6.64337 + 8.95164I$
$u = 0.869875 - 0.302392I$ $a = 0.175063 - 0.651509I$ $b = -0.271019 - 1.145180I$	$-2.66889 + 4.30403I$	$-6.64337 - 8.95164I$
$u = 0.867167 + 0.769940I$ $a = -0.507277 - 0.120829I$ $b = -0.266261 - 1.191970I$	$7.81854 - 2.90716I$	$-1.49116 + 2.36324I$
$u = 0.867167 - 0.769940I$ $a = -0.507277 + 0.120829I$ $b = -0.266261 + 1.191970I$	$7.81854 + 2.90716I$	$-1.49116 - 2.36324I$
$u = -1.042710 + 0.599702I$ $a = -1.70977 + 0.73314I$ $b = 1.015990 + 0.881908I$	$-1.08562 + 7.20573I$	$-9.25026 - 7.69565I$
$u = -1.042710 - 0.599702I$ $a = -1.70977 - 0.73314I$ $b = 1.015990 - 0.881908I$	$-1.08562 - 7.20573I$	$-9.25026 + 7.69565I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.173890 + 0.354715I$ $a = 0.415207 + 1.215040I$ $b = 0.613391 - 0.103361I$	$2.75922 + 3.34728I$	$-2.20513 - 3.30365I$
$u = -1.173890 - 0.354715I$ $a = 0.415207 - 1.215040I$ $b = 0.613391 + 0.103361I$	$2.75922 - 3.34728I$	$-2.20513 + 3.30365I$
$u = -0.691226 + 0.240625I$ $a = 3.57976 + 0.40015I$ $b = -0.934484 - 0.438009I$	$4.67692 - 0.80845I$	$3.56798 - 2.11727I$
$u = -0.691226 - 0.240625I$ $a = 3.57976 - 0.40015I$ $b = -0.934484 + 0.438009I$	$4.67692 + 0.80845I$	$3.56798 + 2.11727I$
$u = 1.59751$ $a = 0.0753958$ $b = 0.312857$	-7.82532	43.2800

III. $I_3^u = \langle -3.41\times 10^{10}a^7u^2 + 9.96\times 10^{10}a^6u^2 + \cdots + 1.82\times 10^{12}a + 8.83\times 10^{11},\ 3a^7u^2 + 7a^6u^2 + \cdots - 56a + 65,\ u^3 + u^2 - 1\rangle$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

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

$$a_5 = \begin{pmatrix} a \\ 0.00955622a^7u^2 - 0.0278888a^6u^2 + \cdots - 0.508573a - 0.247202 \end{pmatrix}$$

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

$$a_4 = \begin{pmatrix} -0.0206730a^7u^2 + 0.00671494a^6u^2 + \cdots - 0.167214a + 0.361442 \\ 0.0365923a^7u^2 - 0.106197a^6u^2 + \cdots + 0.254915a - 0.349774 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.0136970a^7u^2 + 0.167653a^6u^2 + \cdots - 0.128713a + 0.671444 \\ 0.0545800a^7u^2 - 0.0709107a^6u^2 + \cdots - 0.318374a - 0.618795 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.0337296a^7u^2 - 0.0293879a^6u^2 + \cdots + 0.243004a + 1.20707 \\ -0.0280221a^7u^2 + 0.0695256a^6u^2 + \cdots + 0.701359a - 0.906712 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.0381529a^7u^2 + 0.0571347a^6u^2 + \cdots + 0.560725a + 0.216812 \\ 0.0365923a^7u^2 - 0.106197a^6u^2 + \cdots - 0.745085a - 0.349774 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.0337296a^7u^2 - 0.0293879a^6u^2 + \cdots + 0.243004a + 1.20707 \\ -0.0419144a^7u^2 + 0.0898677a^6u^2 + \cdots + 1.22012a - 0.592528 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.0337296a^7u^2 - 0.0293879a^6u^2 + \cdots + 0.243004a + 1.20707 \\ -0.0419144a^7u^2 + 0.0898677a^6u^2 + \cdots + 1.22012a - 0.592528 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes
$= -\frac{1164454014992}{3570132856135}a^7u^2 + \frac{1180088464472}{3570132856135}a^6u^2 + \cdots - \frac{4943997575288}{3570132856135}a - \frac{7861314901686}{3570132856135}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7	$(u^3+u^2-1)^8$
c_2	$(u^3+u^2+2u+1)^8$
c_3, c_6, c_9	$u^{24}-u^{23}+\cdots-276u+1133$
c_4, c_{11}	$u^{24}-3u^{23}+\cdots-54u+59$
c_5	$(u^4-3u^3+u^2+2u+1)^6$
c_8	$(u^4+u^3+u^2+1)^6$
c_{10}	$u^{24}-u^{23}+\cdots-3286u+2677$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$(y^3 - y^2 + 2y - 1)^8$
c_2	$(y^3 + 3y^2 + 2y - 1)^8$
c_3, c_6, c_9	$y^{24} + 27y^{23} + \cdots + 64316y + 1283689$
c_4, c_{11}	$y^{24} + 3y^{23} + \cdots - 3152y + 3481$
c_5	$(y^4 - 7y^3 + 15y^2 - 2y + 1)^6$
c_8	$(y^4 + y^3 + 3y^2 + 2y + 1)^6$
c_{10}	$y^{24} + 15y^{23} + \cdots + 16368400y + 7166329$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.877439+0.744862I$ $a=-0.921360-0.219493I$ $b=\ 0.902902-0.539690I$	$8.16994+1.41302I$	$1.33649+1.92930I$
$u=-0.877439+0.744862I$ $a=\ 0.504527-0.969052I$ $b=-1.196950+0.472705I$	$1.168190-0.335841I$	$-2.31698-0.41465I$
$u=-0.877439+0.744862I$ $a=-0.779487+0.866165I$ $b=\ 0.685429-0.020892I$	$1.168190-0.335841I$	$-2.31698-0.41465I$
$u=-0.877439+0.744862I$ $a=\ 0.051447+1.254950I$ $b=\ 1.53802-1.79281I$	$8.16994+4.24323I$	$1.33649-7.88819I$
$u=-0.877439+0.744862I$ $a=\ 1.42701-0.08967I$ $b=-0.947309-0.408550I$	$1.16819+5.99209I$	$-2.31698-5.54425I$
$u=-0.877439+0.744862I$ $a=-1.58305+0.33835I$ $b=\ 1.28710+1.00044I$	$1.16819+5.99209I$	$-2.31698-5.54425I$
$u=-0.877439+0.744862I$ $a=\ 1.04688-1.38550I$ $b=-0.605985-0.603603I$	$8.16994+4.24323I$	$1.33649-7.88819I$
$u=-0.877439+0.744862I$ $a=\ 1.87343-0.34348I$ $b=-1.01797-2.02902I$	$8.16994+1.41302I$	$1.33649+1.92930I$
$u=-0.877439-0.744862I$ $a=-0.921360+0.219493I$ $b=\ 0.902902+0.539690I$	$8.16994-1.41302I$	$1.33649-1.92930I$
$u=-0.877439-0.744862I$ $a=\ 0.504527+0.969052I$ $b=-1.196950-0.472705I$	$1.168190+0.335841I$	$-2.31698+0.41465I$

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.877439 - 0.744862I$ $a = -0.779487 - 0.866165I$ $b = 0.685429 + 0.020892I$	$1.168190 + 0.335841I$	$-2.31698 + 0.41465I$
$u = -0.877439 - 0.744862I$ $a = 0.051447 - 1.254950I$ $b = 1.53802 + 1.79281I$	$8.16994 - 4.24323I$	$1.33649 + 7.88819I$
$u = -0.877439 - 0.744862I$ $a = 1.42701 + 0.08967I$ $b = -0.947309 + 0.408550I$	$1.16819 - 5.99209I$	$-2.31698 + 5.54425I$
$u = -0.877439 - 0.744862I$ $a = -1.58305 - 0.33835I$ $b = 1.28710 - 1.00044I$	$1.16819 - 5.99209I$	$-2.31698 + 5.54425I$
$u = -0.877439 - 0.744862I$ $a = 1.04688 + 1.38550I$ $b = -0.605985 + 0.603603I$	$8.16994 - 4.24323I$	$1.33649 + 7.88819I$
$u = -0.877439 - 0.744862I$ $a = 1.87343 + 0.34348I$ $b = -1.01797 + 2.02902I$	$8.16994 - 1.41302I$	$1.33649 - 1.92930I$
$u = 0.754878$ $a = 0.906952 + 0.366540I$ $b = 0.273354 + 1.242580I$	$-2.96939 + 3.16396I$	$-8.84625 - 2.56480I$
$u = 0.754878$ $a = 0.906952 - 0.366540I$ $b = 0.273354 - 1.242580I$	$-2.96939 - 3.16396I$	$-8.84625 + 2.56480I$
$u = 0.754878$ $a = 0.322520 + 1.369380I$ $b = -0.500853 + 1.057020I$	$-2.96939 - 3.16396I$	$-8.84625 + 2.56480I$
$u = 0.754878$ $a = 0.322520 - 1.369380I$ $b = -0.500853 - 1.057020I$	$-2.96939 + 3.16396I$	$-8.84625 - 2.56480I$

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.754878$ $a = -2.39656 + 0.93888I$ $b = 1.240420 + 0.312627I$	$4.03235 - 1.41510I$	$-5.19277 + 4.90874I$
$u = 0.754878$ $a = -2.39656 - 0.93888I$ $b = 1.240420 - 0.312627I$	$4.03235 + 1.41510I$	$-5.19277 - 4.90874I$
$u = 0.754878$ $a = -3.45231 + 0.29460I$ $b = -0.158156 - 0.540866I$	$4.03235 - 1.41510I$	$-5.19277 + 4.90874I$
$u = 0.754878$ $a = -3.45231 - 0.29460I$ $b = -0.158156 + 0.540866I$	$4.03235 + 1.41510I$	$-5.19277 - 4.90874I$

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u^3+u^2-1)^8)(u^{15}-5u^{13}+\cdots-2u-2)(u^{22}-9u^{21}+\cdots+80u-16)$
c_2	$((u^3+u^2+2u+1)^8)(u^{15}+10u^{14}+\cdots+32u+4)$ $\cdot(u^{22}+11u^{21}+\cdots+1408u+256)$
c_3, c_9	$(u^{15}+4u^{13}+\cdots+u-1)(u^{22}+18u^{20}+\cdots-3u-1)$ $\cdot(u^{24}-u^{23}+\cdots-276u+1133)$
c_4, c_{11}	$(u^{15}+2u^{13}+\cdots+4u-1)(u^{22}-6u^{20}+\cdots+4u-1)$ $\cdot(u^{24}-3u^{23}+\cdots-54u+59)$
c_5	$((u^4-3u^3+u^2+2u+1)^6)(u^{15}-11u^{14}+\cdots+73u-25)$ $\cdot(u^{22}+12u^{21}+\cdots+672u+64)$
c_6	$(u^{15}+4u^{13}+\cdots+u+1)(u^{22}+18u^{20}+\cdots-3u-1)$ $\cdot(u^{24}-u^{23}+\cdots-276u+1133)$
c_7	$((u^3+u^2-1)^8)(u^{15}-5u^{13}+\cdots-2u+2)(u^{22}-9u^{21}+\cdots+80u-16)$
c_8	$((u^4+u^3+u^2+1)^6)(u^{15}-7u^{14}+\cdots+3u^2-1)$ $\cdot(u^{22}-12u^{21}+\cdots-64u+8)$
c_{10}	$(u^{15}+u^{14}+\cdots+2u+2)(u^{22}+u^{21}+\cdots-2u^2-10)$ $\cdot(u^{24}-u^{23}+\cdots-3286u+2677)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_7	$((y^3 - y^2 + 2y - 1)^8)(y^{15} - 10y^{14} + \cdots + 32y - 4)$ $\cdot\,(y^{22} - 11y^{21} + \cdots - 1408y + 256)$
c_2	$((y^3 + 3y^2 + 2y - 1)^8)(y^{15} - 2y^{14} + \cdots - 8y - 16)$ $\cdot\,(y^{22} + y^{21} + \cdots - 663552y + 65536)$
c_3, c_6, c_9	$(y^{15} + 8y^{14} + \cdots + 11y - 1)(y^{22} + 36y^{21} + \cdots + 9y + 1)$ $\cdot\,(y^{24} + 27y^{23} + \cdots + 64316y + 1283689)$
c_4, c_{11}	$(y^{15} + 4y^{14} + \cdots + 14y - 1)(y^{22} - 12y^{21} + \cdots - 66y + 1)$ $\cdot\,(y^{24} + 3y^{23} + \cdots - 3152y + 3481)$
c_5	$((y^4 - 7y^3 + 15y^2 - 2y + 1)^6)(y^{15} - 19y^{14} + \cdots + 4329y - 625)$ $\cdot\,(y^{22} - 26y^{21} + \cdots - 273920y + 4096)$
c_8	$((y^4 + y^3 + 3y^2 + 2y + 1)^6)(y^{15} - 3y^{14} + \cdots + 6y - 1)$ $\cdot\,(y^{22} - 2y^{21} + \cdots + 224y + 64)$
c_{10}	$(y^{15} + 7y^{14} + \cdots + 39y^2 - 4)(y^{22} + 19y^{21} + \cdots + 40y + 100)$ $\cdot\,(y^{24} + 15y^{23} + \cdots + 16368400y + 7166329)$