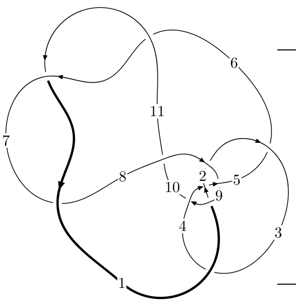
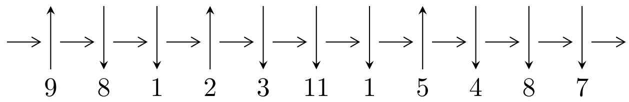
$11n_{149}$ ($K11n_{149}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u &= \langle 25u^{12} - 16u^{11} + 60u^{10} + 12u^9 + 170u^8 + 6u^7 + 155u^6 + 188u^5 + 70u^4 + 151u^3 + 68u^2 + 11b + 51u + 21, \\
&\quad a - 1,\ u^{13} - u^{12} + 3u^{11} - u^{10} + 8u^9 - 3u^8 + 9u^7 + 3u^6 + 4u^5 + 6u^4 + 4u^2 + 1\rangle \\
I_2^u &= \langle -u^5 - u^4 + b - u - 1,\ a + 1,\ u^7 + u^6 - u^4 + u^3 + 2u^2 - 1\rangle \\
I_3^u &= \langle b + 1,\ -2889u^{11} + 13347u^{10} + \cdots + 24775a + 75210, \\
&\quad u^{12} - 2u^{11} + 2u^{10} - u^9 + 10u^8 - 16u^7 + 25u^6 - 16u^5 + 20u^4 - 9u^3 + 15u^2 - 3u + 5\rangle \\
I_4^u &= \langle b - 1,\ a + u,\ u^2 + u + 1\rangle
\end{aligned}$$

* 4 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 34 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. $I^u_1 = \langle 25u^{12} - 16u^{11} + \cdots + 11b + 21,\ a - 1,\ u^{13} - u^{12} + \cdots + 4u^2 + 1\rangle$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 1 \\ -2.27273u^{12} + 1.45455u^{11} + \cdots - 4.63636u - 1.90909 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 2.27273u^{12} - 1.45455u^{11} + \cdots + 4.63636u + 2.90909 \\ -1.72727u^{12} + 0.545455u^{11} + \cdots - 2.36364u - 1.09091 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 0.545455u^{12} - 0.909091u^{11} + \cdots + 2.27273u + 1.81818 \\ -1.72727u^{12} + 0.545455u^{11} + \cdots - 2.36364u - 1.09091 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 2.36364u^{12} - 0.272727u^{11} + \cdots + 1.18182u + 1.54545 \\ 1.27273u^{12} + 0.545455u^{11} + \cdots + 1.63636u + 0.909091 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u \\ 0.818182u^{12} - 1.36364u^{11} + \cdots + 2.90909u - 2.27273 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 0.818182u^{12} - 1.36364u^{11} + \cdots + 1.90909u - 2.27273 \\ 0.818182u^{12} - 1.36364u^{11} + \cdots + 2.90909u - 2.27273 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 1.09091u^{12} + 1.18182u^{11} + \cdots - 0.454545u + 1.63636 \\ 1.63636u^{12} + 0.272727u^{11} + \cdots + 1.81818u + 1.45455 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -0.727273u^{12} + 2.54545u^{11} + \cdots - 1.36364u + 2.90909 \\ -0.545455u^{12} - 0.0909091u^{11} + \cdots - 1.27273u + 1.18182 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -0.727273u^{12} + 2.54545u^{11} + \cdots - 1.36364u + 2.90909 \\ -0.545455u^{12} - 0.0909091u^{11} + \cdots - 1.27273u + 1.18182 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -\frac{76}{11}u^{12} + \frac{189}{11}u^{11} - \frac{332}{11}u^{10} + \frac{334}{11}u^9 - \frac{618}{11}u^8 + \frac{926}{11}u^7 - \frac{898}{11}u^6 + \frac{257}{11}u^5 + \frac{335}{11}u^4 - \frac{463}{11}u^3 + \frac{415}{11}u^2 - \frac{313}{11}u + \frac{18}{11}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_8	$u^{13} - u^{12} + 3u^{11} - u^{10} + 8u^9 - 3u^8 + 9u^7 + 3u^6 + 4u^5 + 6u^4 + 4u^2 + 1$
c_2, c_9	$u^{13} - 7u^{11} + \cdots + 7u + 5$
c_3, c_5	$u^{13} - 15u^{11} + \cdots + 7u - 1$
c_4	$u^{13} + 10u^{12} + \cdots + 15u + 2$
c_6, c_7, c_{11}	$u^{13} + 5u^{12} + \cdots + 17u + 4$
c_{10}	$u^{13} - 15u^{12} + \cdots - 57u - 4$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_8	$y^{13} + 5y^{12} + \cdots - 8y - 1$
c_2, c_9	$y^{13} - 14y^{12} + \cdots + 209y - 25$
c_3, c_5	$y^{13} - 30y^{12} + \cdots + 113y - 1$
c_4	$y^{13} + 28y^{11} + \cdots - 15y - 4$
c_6, c_7, c_{11}	$y^{13} - 19y^{12} + \cdots + 41y - 16$
c_{10}	$y^{13} - 55y^{12} + \cdots + 969y - 16$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.674712 + 0.924636I$ $a = 1.00000$ $b = 0.661360 - 0.645036I$	$-0.51141 + 2.45131I$	$-7.77475 - 3.59431I$
$u = 0.674712 - 0.924636I$ $a = 1.00000$ $b = 0.661360 + 0.645036I$	$-0.51141 - 2.45131I$	$-7.77475 + 3.59431I$
$u = -0.846831$ $a = 1.00000$ $b = -0.355630$	-1.94524	-3.64330
$u = 0.448030 + 0.671291I$ $a = 1.00000$ $b = 2.26733 - 1.80136I$	$-15.3014 + 1.1163I$	$-12.72292 - 6.16579I$
$u = 0.448030 - 0.671291I$ $a = 1.00000$ $b = 2.26733 + 1.80136I$	$-15.3014 - 1.1163I$	$-12.72292 + 6.16579I$
$u = -0.203954 + 0.727117I$ $a = 1.00000$ $b = 1.41448 + 1.32960I$	$-4.93091 - 1.68363I$	$-14.6461 + 4.3140I$
$u = -0.203954 - 0.727117I$ $a = 1.00000$ $b = 1.41448 - 1.32960I$	$-4.93091 + 1.68363I$	$-14.6461 - 4.3140I$
$u = -0.105797 + 0.658395I$ $a = 1.00000$ $b = 0.477683 - 0.375673I$	$-0.841006 + 0.849259I$	$-7.03929 - 4.96127I$
$u = -0.105797 - 0.658395I$ $a = 1.00000$ $b = 0.477683 + 0.375673I$	$-0.841006 - 0.849259I$	$-7.03929 + 4.96127I$
$u = -0.86343 + 1.18631I$ $a = 1.00000$ $b = 1.21985 + 0.98118I$	$-5.89508 - 7.30581I$	$-10.12798 + 5.39962I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.86343 - 1.18631I$ $a = 1.00000$ $b = 1.21985 - 0.98118I$	$-5.89508 + 7.30581I$	$-10.12798 - 5.39962I$
$u = 0.97385 + 1.25941I$ $a = 1.00000$ $b = 1.63711 - 1.00293I$	$-17.6057 + 11.1363I$	$-9.36728 - 5.05197I$
$u = 0.97385 - 1.25941I$ $a = 1.00000$ $b = 1.63711 + 1.00293I$	$-17.6057 - 11.1363I$	$-9.36728 + 5.05197I$

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

(i) Arc colorings

$$a_1 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -1 \\ u^5 + u^4 + u + 1 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -u^5 - u^4 + u^2 - u - 2 \\ u^5 + u^4 - u^2 + u + 2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 0 \\ u^5 + u^4 - u^2 + u + 2 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -1 \\ -u^6 - 2u^5 - u^4 - 3u - 2 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u \\ u^6 + u^5 + u^2 + 2u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u^6 + u^5 + u^2 + u \\ u^6 + u^5 + u^2 + 2u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -u^6 - u^5 - u^2 - u \\ -u^6 - u^5 - u^4 - u^2 - u - 2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -2u^6 - 2u^5 - u^4 + u^3 - 2u^2 - 3u - 1 \\ 2u^6 + 2u^5 + u^4 - u^3 + 2u^2 + 4u + 1 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -2u^6 - 2u^5 - u^4 + u^3 - 2u^2 - 3u - 1 \\ 2u^6 + 2u^5 + u^4 - u^3 + 2u^2 + 4u + 1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -2u^6 - 2u^5 - 2u^4 - 2u^3 - 6u^2 - u - 6$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_8	$u^7 + u^6 - u^4 + u^3 + 2u^2 - 1$
c_2, c_9	$u^7 - 2u^5 - u^4 + u^3 - u - 1$
c_3, c_5	$u^7 + 4u^6 + 6u^5 + 7u^4 + 5u^3 + 4u^2 + u + 1$
c_4	$u^7 - 3u^6 + 3u^5 + 2u^4 - 8u^3 + 10u^2 - 7u + 3$
c_6, c_7	$u^7 + 2u^6 - 3u^5 - 6u^4 + 3u^3 + 5u^2 + 1$
c_{10}	$u^7 + 6u^6 + 9u^5 + 10u^4 + 14u^3 + 17u^2 + 4u + 3$
c_{11}	$u^7 - 2u^6 - 3u^5 + 6u^4 + 3u^3 - 5u^2 - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_8	$y^7 - y^6 + 4y^5 - 5y^4 + 7y^3 - 6y^2 + 4y - 1$
c_2, c_9	$y^7 - 4y^6 + 6y^5 - 7y^4 + 5y^3 - 4y^2 + y - 1$
c_3, c_5	$y^7 - 4y^6 - 10y^5 - 19y^4 - 27y^3 - 20y^2 - 7y - 1$
c_4	$y^7 - 3y^6 + 5y^5 - 6y^4 - 11y - 9$
c_6, c_7, c_{11}	$y^7 - 10y^6 + 39y^5 - 74y^4 + 65y^3 - 13y^2 - 10y - 1$
c_{10}	$y^7 - 18y^6 - 11y^5 - 44y^4 - 108y^3 - 237y^2 - 86y - 9$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.802338 + 0.719305I$ $a = -1.00000$ $b = -0.779943 + 0.298148I$	$1.16830 + 3.69824I$	$0.06787 - 5.87141I$
$u = 0.802338 - 0.719305I$ $a = -1.00000$ $b = -0.779943 - 0.298148I$	$1.16830 - 3.69824I$	$0.06787 + 5.87141I$
$u = -0.846840 + 0.359999I$ $a = -1.00000$ $b = 0.407021 + 0.240702I$	$-3.01119 - 1.09708I$	$-7.72510 + 2.89075I$
$u = -0.846840 - 0.359999I$ $a = -1.00000$ $b = 0.407021 - 0.240702I$	$-3.01119 + 1.09708I$	$-7.72510 - 2.89075I$
$u = -0.772063 + 1.005180I$ $a = -1.00000$ $b = -1.57485 - 0.95070I$	$-3.71133 - 5.67264I$	$-8.74304 + 4.77569I$
$u = -0.772063 - 1.005180I$ $a = -1.00000$ $b = -1.57485 + 0.95070I$	$-3.71133 + 5.67264I$	$-8.74304 - 4.77569I$
$u = 0.633128$ $a = -1.00000$ $b = 1.89554$	-15.2105	-10.1990

III. $I^u_3 =$ $\langle b+1,\ -2889u^{11}+13347u^{10}+\cdots+24775a+75210,\ u^{12}-2u^{11}+\cdots-3u+5\rangle$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 0.116609u^{11} - 0.538729u^{10} + \cdots + 1.94099u - 3.03572 \\ -1 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 0.318063u^{11} - 1.11927u^{10} + \cdots + 3.44057u - 3.56327 \\ 0.233663u^{11} - 0.482624u^{10} + \cdots + 1.54018u - 1.88819 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 0.551726u^{11} - 1.60190u^{10} + \cdots + 4.98075u - 5.45146 \\ 0.233663u^{11} - 0.482624u^{10} + \cdots + 1.54018u - 1.88819 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -1.80605u^{11} + 3.85227u^{10} + \cdots - 13.0482u + 5.66478 \\ -0.647790u^{11} + 1.13792u^{10} + \cdots - 4.51939u + 1.23935 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -0.353623u^{11} + 0.387608u^{10} + \cdots - 0.938527u - 2.40424 \\ -0.305510u^{11} + 0.409566u^{10} + \cdots - 1.68589u - 0.583047 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -0.659132u^{11} + 0.797175u^{10} + \cdots - 2.62442u - 2.98729 \\ -0.305510u^{11} + 0.409566u^{10} + \cdots - 1.68589u - 0.583047 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -0.0829062u^{11} - 0.398910u^{10} + \cdots - 2.15915u - 7.14490 \\ 0.0832694u^{11} - 0.0962260u^{10} + \cdots - 0.465954u - 1.28698 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -0.564682u^{11} + 0.461756u^{10} + \cdots + 2.64803u - 4.27790 \\ -0.524157u^{11} + 0.426559u^{10} + \cdots - 1.53045u - 2.47952 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -0.564682u^{11} + 0.461756u^{10} + \cdots + 2.64803u - 4.27790 \\ -0.524157u^{11} + 0.426559u^{10} + \cdots - 1.53045u - 2.47952 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -\frac{9636}{24775}u^{11} + \frac{8073}{24775}u^{10} + \frac{677}{4955}u^9 - \frac{13974}{24775}u^8 - \frac{85126}{24775}u^7 + \frac{43842}{24775}u^6 - \frac{63372}{24775}u^5 - \frac{125697}{24775}u^4 - \frac{7143}{24775}u^3 - \frac{136338}{24775}u^2 - \frac{64082}{24775}u - \frac{74951}{4955}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_8	$u^{12} - 2u^{11} + \cdots - 3u + 5$
c_2, c_9	$u^{12} - 6u^{10} + \cdots - 99u + 149$
c_3, c_5	$u^{12} + 3u^{11} + \cdots - 142u + 55$
c_4	$(u^6 - u^5 + 2u^4 - u^3 + 3u^2 - u + 2)^2$
c_6, c_7, c_{11}	$(u^6 - 2u^5 - 3u^4 + 5u^3 + 4u^2 - 4u + 1)^2$
c_{10}	$(u^6 + 9u^5 + 22u^4 + 7u^3 + 45u^2 - 37u + 8)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_8	$y^{12} + 20y^{10} + \cdots + 141y + 25$
c_2, c_9	$y^{12} - 12y^{11} + \cdots - 49435y + 22201$
c_3, c_5	$y^{12} - 23y^{11} + \cdots + 11186y + 3025$
c_4	$(y^6 + 3y^5 + 8y^4 + 13y^3 + 15y^2 + 11y + 4)^2$
c_6, c_7, c_{11}	$(y^6 - 10y^5 + 37y^4 - 63y^3 + 50y^2 - 8y + 1)^2$
c_{10}	$(y^6 - 37y^5 + 448y^4 + 2613y^3 + 2895y^2 - 649y + 64)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = \ \ 0.407359 + 0.925074I$ $a = -0.38093 - 1.77640I$ $b = -1.00000$	$-16.2326 + 2.4092I$	$-11.34374 - 2.92591I$
$u = \ \ 0.407359 - 0.925074I$ $a = -0.38093 + 1.77640I$ $b = -1.00000$	$-16.2326 - 2.4092I$	$-11.34374 + 2.92591I$
$u = -0.508342 + 0.642859I$ $a = -1.44953 - 0.18499I$ $b = -1.00000$	$0.28398 - 3.35669I$	$-10.19329 + 2.26936I$
$u = -0.508342 - 0.642859I$ $a = -1.44953 + 0.18499I$ $b = -1.00000$	$0.28398 + 3.35669I$	$-10.19329 - 2.26936I$
$u = \ \ 0.855780 + 0.837806I$ $a = -0.678823 - 0.086632I$ $b = -1.00000$	$0.28398 + 3.35669I$	$-10.19329 - 2.26936I$
$u = \ \ 0.855780 - 0.837806I$ $a = -0.678823 + 0.086632I$ $b = -1.00000$	$0.28398 - 3.35669I$	$-10.19329 + 2.26936I$
$u = \ \ 0.025508 + 0.713967I$ $a = -1.68406 + 1.71644I$ $b = -1.00000$	$-4.61307 + 0.88172I$	$-13.96296 - 1.82677I$
$u = \ \ 0.025508 - 0.713967I$ $a = -1.68406 - 1.71644I$ $b = -1.00000$	$-4.61307 - 0.88172I$	$-13.96296 + 1.82677I$
$u = -1.26844 + 1.15858I$ $a = -0.291248 + 0.296847I$ $b = -1.00000$	$-4.61307 - 0.88172I$	$-13.96296 + 1.82677I$
$u = -1.26844 - 1.15858I$ $a = -0.291248 - 0.296847I$ $b = -1.00000$	$-4.61307 + 0.88172I$	$-13.96296 - 1.82677I$

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 1.48813 + 1.07602I$ $a = -0.115407 - 0.538187I$ $b = -1.00000$	$-16.2326 - 2.4092I$	$-11.34374 + 2.92591I$
$u = \quad 1.48813 - 1.07602I$ $a = -0.115407 + 0.538187I$ $b = -1.00000$	$-16.2326 + 2.4092I$	$-11.34374 - 2.92591I$

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

(i) Arc colorings

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

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

$$a_2 = \begin{pmatrix} 1 \\ u+1 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -u \\ 1 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -u \\ 1 \end{pmatrix}$$

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

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

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

$$a_7 = \begin{pmatrix} -2 \\ -1 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -1 \\ -1 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -1 \\ -1 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -1 \\ -1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -9$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_4^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.500000 + 0.866025I$ $a = \quad 0.500000 - 0.866025I$ $b = \quad 1.00000$	-3.28987	-9.00000
$u = -0.500000 - 0.866025I$ $a = \quad 0.500000 + 0.866025I$ $b = \quad 1.00000$	-3.28987	-9.00000

V. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_8	$(u^2+u+1)(u^7+u^6+\cdots+2u^2-1)(u^{12}-2u^{11}+\cdots-3u+5)$ $\cdot(u^{13}-u^{12}+3u^{11}-u^{10}+8u^9-3u^8+9u^7+3u^6+4u^5+6u^4+4u^2+1)$
c_2, c_9	$(u^2+u+1)(u^7-2u^5+\cdots-u-1)(u^{12}-6u^{10}+\cdots-99u+149)$ $\cdot(u^{13}-7u^{11}+\cdots+7u+5)$
c_3, c_5	$(u+1)^2(u^7+4u^6+6u^5+7u^4+5u^3+4u^2+u+1)$ $\cdot(u^{12}+3u^{11}+\cdots-142u+55)(u^{13}-15u^{11}+\cdots+7u-1)$
c_4	$u^2(u^6-u^5+2u^4-u^3+3u^2-u+2)^2$ $\cdot(u^7-3u^6+3u^5+2u^4-8u^3+10u^2-7u+3)$ $\cdot(u^{13}+10u^{12}+\cdots+15u+2)$
c_6, c_7	$(u-1)^2(u^6-2u^5-3u^4+5u^3+4u^2-4u+1)^2$ $\cdot(u^7+2u^6+\cdots+5u^2+1)(u^{13}+5u^{12}+\cdots+17u+4)$
c_{10}	$u^2(u^6+9u^5+22u^4+7u^3+45u^2-37u+8)^2$ $\cdot(u^7+6u^6+9u^5+10u^4+14u^3+17u^2+4u+3)$ $\cdot(u^{13}-15u^{12}+\cdots-57u-4)$
c_{11}	$(u+1)^2(u^6-2u^5-3u^4+5u^3+4u^2-4u+1)^2$ $\cdot(u^7-2u^6+\cdots-5u^2-1)(u^{13}+5u^{12}+\cdots+17u+4)$

VI. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_8	$(y^2+y+1)(y^7-y^6+4y^5-5y^4+7y^3-6y^2+4y-1)$ $\cdot (y^{12}+20y^{10}+\cdots+141y+25)(y^{13}+5y^{12}+\cdots-8y-1)$
c_2, c_9	$(y^2+y+1)(y^7-4y^6+6y^5-7y^4+5y^3-4y^2+y-1)$ $\cdot (y^{12}-12y^{11}+\cdots-49435y+22201)(y^{13}-14y^{12}+\cdots+209y-25)$
c_3, c_5	$(y-1)^2(y^7-4y^6-10y^5-19y^4-27y^3-20y^2-7y-1)$ $\cdot (y^{12}-23y^{11}+\cdots+11186y+3025)(y^{13}-30y^{12}+\cdots+113y-1)$
c_4	$y^2(y^6+3y^5+8y^4+13y^3+15y^2+11y+4)^2$ $\cdot (y^7-3y^6+5y^5-6y^4-11y-9)(y^{13}+28y^{11}+\cdots-15y-4)$
c_6, c_7, c_{11}	$(y-1)^2(y^6-10y^5+37y^4-63y^3+50y^2-8y+1)^2$ $\cdot (y^7-10y^6+39y^5-74y^4+65y^3-13y^2-10y-1)$ $\cdot (y^{13}-19y^{12}+\cdots+41y-16)$
c_{10}	$y^2(y^6-37y^5+448y^4+2613y^3+2895y^2-649y+64)^2$ $\cdot (y^7-18y^6-11y^5-44y^4-108y^3-237y^2-86y-9)$ $\cdot (y^{13}-55y^{12}+\cdots+969y-16)$