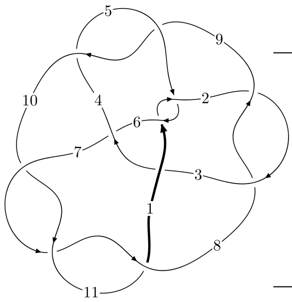
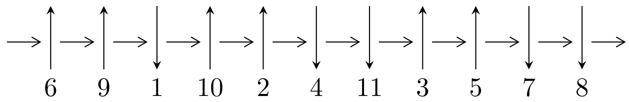
$11a_{279}$ ($K11a_{279}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u &= \langle -207u^{22} + 1583u^{21} + \cdots + 4b - 1196,\ -703u^{22} + 5325u^{21} + \cdots + 8a - 3908, \\
&\quad u^{23} - 9u^{22} + \cdots - 16u - 8\rangle \\
I_2^u &= \langle -67075021335a^5u^5 - 139677423007u^5a^4 + \cdots + 70899952257a - 101012825507, \\
&\quad a^5u^5 - 8u^5a^4 + \cdots - 56a + 146,\ u^6 + u^5 - 3u^4 - 2u^3 + 2u^2 - u - 1\rangle \\
I_3^u &= \langle u^{13} + u^{12} - 6u^{11} - 6u^{10} + 13u^9 + 12u^8 - 15u^7 - 10u^6 + 14u^5 + 5u^4 - 8u^3 - u^2 + b + 2u, \\
&\quad u^{11} - 6u^9 + 13u^7 - u^6 - 14u^5 + 4u^4 + 10u^3 - 5u^2 + a - 3u + 2, \\
&\quad u^{14} + 2u^{13} - 6u^{12} - 13u^{11} + 13u^{10} + 31u^9 - 15u^8 - 36u^7 + 15u^6 + 26u^5 - 11u^4 - 12u^3 + 3u^2 + 2u + 1\rangle
\end{aligned}$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 73 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. $I_1^u = \langle -207u^{22} + 1583u^{21} + \cdots + 4b - 1196,\ -703u^{22} + 5325u^{21} + \cdots + 8a - 3908,\ u^{23} - 9u^{22} + \cdots - 16u - 8\rangle$

(i) Arc colorings

$$a_7 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_8 = \begin{pmatrix}1\\u^2\end{pmatrix}$$
$$a_1 = \begin{pmatrix}-u\\-u^3+u\end{pmatrix}$$
$$a_4 = \begin{pmatrix}87.8750u^{22} - 665.625u^{21} + \cdots + 1316.50u + 488.500\\ \frac{207}{4}u^{22} - \frac{1583}{4}u^{21} + \cdots + \frac{1625}{2}u + 299\end{pmatrix}$$
$$a_3 = \begin{pmatrix}17.8750u^{22} - 127.625u^{21} + \cdots + 189.500u + 74.5000\\ \frac{23}{4}u^{22} - \frac{107}{4}u^{21} + \cdots - \frac{185}{2}u - 23\end{pmatrix}$$
$$a_6 = \begin{pmatrix}-27u^{22} + 202u^{21} + \cdots - \frac{737}{2}u - \frac{279}{2}\\ -\frac{41}{2}u^{22} + 155u^{21} + \cdots - \frac{599}{2}u - 112\end{pmatrix}$$
$$a_2 = \begin{pmatrix}-\frac{89}{2}u^{22} + \frac{1365}{4}u^{21} + \cdots - \frac{2899}{4}u - 264\\ -\frac{127}{4}u^{22} + \frac{973}{4}u^{21} + \cdots - 523u - 190\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}u\\u\end{pmatrix}$$
$$a_5 = \begin{pmatrix}2.87500u^{22} - 31.6250u^{21} + \cdots + 143.500u + 46.5000\\ -\frac{133}{4}u^{22} + \frac{953}{4}u^{21} + \cdots - \frac{721}{2}u - 143\end{pmatrix}$$
$$a_9 = \begin{pmatrix}-14u^{22} + 106u^{21} + \cdots - \frac{403}{2}u - \frac{151}{2}\\ -20u^{22} + \frac{305}{2}u^{21} + \cdots - \frac{599}{2}u - 112\end{pmatrix}$$

$$a_9 = \begin{pmatrix}-14u^{22} + 106u^{21} + \cdots - \frac{403}{2}u - \frac{151}{2}\\ -20u^{22} + \frac{305}{2}u^{21} + \cdots - \frac{599}{2}u - 112\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes
$= 170u^{22} - 1286u^{21} + 3085u^{20} - 847u^{19} - 4606u^{18} - 3555u^{17} + 14615u^{16} + 14163u^{15} - 31843u^{14} - 26814u^{13} + 25733u^{12} + 61934u^{11} - 11560u^{10} - 75044u^{9} - 12076u^{8} + 43840u^{7} + 41946u^{6} - 26305u^{5} - 16870u^{4} - 1708u^{3} + 3903u^{2} + 2554u + 954$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$u^{23} - 14u^{22} + \cdots + 608u - 64$
c_2, c_4, c_8 c_9	$u^{23} + 12u^{21} + \cdots + 2u + 1$
c_3, c_6	$u^{23} - 2u^{22} + \cdots - 10u - 1$
c_7, c_{10}, c_{11}	$u^{23} + 9u^{22} + \cdots - 16u + 8$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{23} + 12y^{22} + \cdots - 3072y - 4096$
c_2, c_4, c_8 c_9	$y^{23} + 24y^{22} + \cdots + 2y - 1$
c_3, c_6	$y^{23} - 16y^{22} + \cdots + 58y - 1$
c_7, c_{10}, c_{11}	$y^{23} - 23y^{22} + \cdots - 32y - 64$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.967745 + 0.381665I$ $a = 0.201884 + 0.414286I$ $b = -0.183628 - 0.001198I$	$-1.61771 - 1.40406I$	$-4.39049 - 3.86592I$
$u = 0.967745 - 0.381665I$ $a = 0.201884 - 0.414286I$ $b = -0.183628 + 0.001198I$	$-1.61771 + 1.40406I$	$-4.39049 + 3.86592I$
$u = -0.698852 + 0.821638I$ $a = 0.477872 + 0.534934I$ $b = 1.29859 - 0.66746I$	$-10.9998 + 10.3816I$	$-5.93991 - 6.82804I$
$u = -0.698852 - 0.821638I$ $a = 0.477872 - 0.534934I$ $b = 1.29859 + 0.66746I$	$-10.9998 - 10.3816I$	$-5.93991 + 6.82804I$
$u = -0.497254 + 0.985536I$ $a = -0.155208 + 0.547360I$ $b = 1.111120 + 0.180964I$	$-10.27160 - 4.44360I$	$-7.21311 + 2.51122I$
$u = -0.497254 - 0.985536I$ $a = -0.155208 - 0.547360I$ $b = 1.111120 - 0.180964I$	$-10.27160 + 4.44360I$	$-7.21311 - 2.51122I$
$u = -1.143500 + 0.155903I$ $a = -0.153289 + 0.400091I$ $b = -0.166969 + 1.049480I$	$-2.11154 + 2.89602I$	$-5.87366 - 5.40163I$
$u = -1.143500 - 0.155903I$ $a = -0.153289 - 0.400091I$ $b = -0.166969 - 1.049480I$	$-2.11154 - 2.89602I$	$-5.87366 + 5.40163I$
$u = -0.712264 + 0.994425I$ $a = -0.160694 - 0.410443I$ $b = -1.026660 + 0.292744I$	$-5.31535 + 3.36271I$	$-7.37506 - 4.35567I$
$u = -0.712264 - 0.994425I$ $a = -0.160694 + 0.410443I$ $b = -1.026660 - 0.292744I$	$-5.31535 - 3.36271I$	$-7.37506 + 4.35567I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.42821$ $a = 1.51970$ $b = 0.929418$	-3.83839	0.512880
$u = 1.48911 + 0.05545I$ $a = -1.87603 - 0.45482I$ $b = -1.31072 - 0.53567I$	$-6.91782 - 3.55772I$	$-4.11987 + 3.22917I$
$u = 1.48911 - 0.05545I$ $a = -1.87603 + 0.45482I$ $b = -1.31072 + 0.53567I$	$-6.91782 + 3.55772I$	$-4.11987 - 3.22917I$
$u = -0.406359 + 0.227585I$ $a = -1.54270 + 0.18400I$ $b = -0.725818 + 0.732059I$	$-0.62578 + 2.55105I$	$5.72447 - 4.75724I$
$u = -0.406359 - 0.227585I$ $a = -1.54270 - 0.18400I$ $b = -0.725818 - 0.732059I$	$-0.62578 - 2.55105I$	$5.72447 + 4.75724I$
$u = -0.089013 + 0.421365I$ $a = 1.053790 + 0.259361I$ $b = 0.043793 - 0.543989I$	$0.762182 - 0.859530I$	$5.83936 + 4.64887I$
$u = -0.089013 - 0.421365I$ $a = 1.053790 - 0.259361I$ $b = 0.043793 + 0.543989I$	$0.762182 + 0.859530I$	$5.83936 - 4.64887I$
$u = 1.60902 + 0.26327I$ $a = 1.77485 - 0.04465I$ $b = 1.64226 + 0.99576I$	$-18.6220 - 14.4160I$	$-7.82251 + 6.36300I$
$u = 1.60902 - 0.26327I$ $a = 1.77485 + 0.04465I$ $b = 1.64226 - 0.99576I$	$-18.6220 + 14.4160I$	$-7.82251 - 6.36300I$
$u = 1.62187 + 0.36588I$ $a = 0.952251 - 0.437186I$ $b = 1.191870 + 0.399326I$	$-17.1859 - 0.6728I$	$-9.48576 + 0.I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.62187 - 0.36588I$ $a = 0.952251 + 0.437186I$ $b = 1.191870 - 0.399326I$	$-17.1859 + 0.6728I$	$-9.48576 + 0.I$
$u = 1.64539 + 0.28873I$ $a = -1.332570 + 0.052250I$ $b = -1.33854 - 0.83024I$	$-13.1794 - 8.0766I$	$-6.59988 + 4.65013I$
$u = 1.64539 - 0.28873I$ $a = -1.332570 - 0.052250I$ $b = -1.33854 + 0.83024I$	$-13.1794 + 8.0766I$	$-6.59988 - 4.65013I$

II. $\boldsymbol{I_2^u = \langle -6.71 \times 10^{10} a^5u^5 - 1.40 \times 10^{11} a^4u^5 + \cdots + 7.09 \times 10^{10} a - 1.01 \times 10^{11},\ a^5u^5 - 8u^5a^4 + \cdots - 56a + 146,\ u^6 + u^5 - 3u^4 - 2u^3 + 2u^2 - u - 1\rangle}$

(i) Arc colorings

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} a \\ 0.371284a^5u^5 + 0.773165a^4u^5 + \cdots - 0.392457a + 0.559142 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 0.170270a^5u^5 + 0.0886799a^4u^5 + \cdots + 0.698794a - 0.338523 \\ -0.0269564a^5u^5 + 0.359586a^4u^5 + \cdots - 0.193734a + 0.241379 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -0.213956a^5u^5 - 0.218275a^4u^5 + \cdots - 0.238216a - 1.06457 \\ -0.561901a^5u^5 - 0.0721808a^4u^5 + \cdots + 2.14554a + 0.0866807 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 0.258733a^5u^5 + 0.471591a^4u^5 + \cdots + 1.67688a - 1.32875 \\ 0.378233a^5u^5 + 0.298414a^4u^5 + \cdots - 1.26568a + 2.33162 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 0.170270a^5u^5 + 0.0886799a^4u^5 + \cdots + 0.698794a - 0.338523 \\ 0.541554a^5u^5 + 0.861845a^4u^5 + \cdots - 0.693662a + 0.220619 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0.0275530a^5u^5 - 0.0220361a^4u^5 + \cdots - 0.143100a - 1.01359 \\ -0.371225a^5u^5 - 0.710937a^4u^5 + \cdots - 0.730561a + 1.33567 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0.0275530a^5u^5 - 0.0220361a^4u^5 + \cdots - 0.143100a - 1.01359 \\ -0.371225a^5u^5 - 0.710937a^4u^5 + \cdots - 0.730561a + 1.33567 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes
$= \frac{345052934836}{180656766347}a^5u^5 + \frac{45427860044}{180656766347}u^5a^4 + \cdots + \frac{176923926364}{180656766347}a - \frac{1401640745238}{180656766347}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$(u^3+u^2+2u+1)^{12}$
c_2, c_4, c_8 c_9	$u^{36}+u^{35}+\cdots-62u+59$
c_3, c_6	$u^{36}-7u^{35}+\cdots-12064u+1913$
c_7, c_{10}, c_{11}	$(u^6-u^5-3u^4+2u^3+2u^2+u-1)^6$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$(y^3 + 3y^2 + 2y - 1)^{12}$
c_2, c_4, c_8 c_9	$y^{36} + 35y^{35} + \cdots - 69452y + 3481$
c_3, c_6	$y^{36} - 17y^{35} + \cdots - 71361608y + 3659569$
c_7, c_{10}, c_{11}	$(y^6 - 7y^5 + 17y^4 - 16y^3 + 6y^2 - 5y + 1)^6$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.493180 + 0.575288I$ $a = 0.740979 - 0.192185I$ $b = 0.450829 + 0.179718I$	$-0.86110 - 1.97241I$	$2.44379 + 3.68478I$
$u = 0.493180 + 0.575288I$ $a = 0.278434 - 0.615278I$ $b = 1.47772 + 0.68516I$	$-4.99869 - 4.80053I$	$-4.08548 + 6.66423I$
$u = 0.493180 + 0.575288I$ $a = -0.091295 + 0.628827I$ $b = -0.824811 - 0.438466I$	$-0.86110 - 1.97241I$	$2.44379 + 3.68478I$
$u = 0.493180 + 0.575288I$ $a = -0.30781 - 1.40775I$ $b = 0.983052 - 0.169478I$	$-4.99869 + 0.85571I$	$-4.08548 + 0.70533I$
$u = 0.493180 + 0.575288I$ $a = -1.46445 + 0.74881I$ $b = -0.787709 - 0.753418I$	$-4.99869 - 4.80053I$	$-4.08548 + 6.66423I$
$u = 0.493180 + 0.575288I$ $a = -0.016507 + 0.259156I$ $b = -0.803665 + 0.839255I$	$-4.99869 + 0.85571I$	$-4.08548 + 0.70533I$
$u = 0.493180 - 0.575288I$ $a = 0.740979 + 0.192185I$ $b = 0.450829 - 0.179718I$	$-0.86110 + 1.97241I$	$2.44379 - 3.68478I$
$u = 0.493180 - 0.575288I$ $a = 0.278434 + 0.615278I$ $b = 1.47772 - 0.68516I$	$-4.99869 + 4.80053I$	$-4.08548 - 6.66423I$
$u = 0.493180 - 0.575288I$ $a = -0.091295 - 0.628827I$ $b = -0.824811 + 0.438466I$	$-0.86110 + 1.97241I$	$2.44379 - 3.68478I$
$u = 0.493180 - 0.575288I$ $a = -0.30781 + 1.40775I$ $b = 0.983052 + 0.169478I$	$-4.99869 - 0.85571I$	$-4.08548 - 0.70533I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.493180 - 0.575288I$ $a = -1.46445 - 0.74881I$ $b = -0.787709 + 0.753418I$	$-4.99869 + 4.80053I$	$-4.08548 - 6.66423I$
$u = 0.493180 - 0.575288I$ $a = -0.016507 - 0.259156I$ $b = -0.803665 - 0.839255I$	$-4.99869 - 0.85571I$	$-4.08548 - 0.70533I$
$u = -0.483672$ $a = 0.56022 + 1.30558I$ $b = 1.14384 - 1.41582I$	$-8.69778 - 2.82812I$	$-12.92653 + 2.97945I$
$u = -0.483672$ $a = 0.56022 - 1.30558I$ $b = 1.14384 + 1.41582I$	$-8.69778 + 2.82812I$	$-12.92653 - 2.97945I$
$u = -0.483672$ $a = -1.14171 + 2.07722I$ $b = -0.819304 - 0.518752I$	-4.56020	$-6.39727 + 0.I$
$u = -0.483672$ $a = -1.14171 - 2.07722I$ $b = -0.819304 + 0.518752I$	-4.56020	$-6.39727 + 0.I$
$u = -0.483672$ $a = 2.09393 + 3.55870I$ $b = 0.760815 + 0.201046I$	$-8.69778 + 2.82812I$	$-12.92653 - 2.97945I$
$u = -0.483672$ $a = 2.09393 - 3.55870I$ $b = 0.760815 - 0.201046I$	$-8.69778 - 2.82812I$	$-12.92653 + 2.97945I$
$u = -1.52087 + 0.16310I$ $a = 1.132330 + 0.632859I$ $b = 0.990662 - 0.420388I$	$-11.65450 + 1.76400I$	$-8.09089 - 0.22537I$
$u = -1.52087 + 0.16310I$ $a = 1.46325 + 0.14079I$ $b = 0.986534 - 0.078657I$	$-7.51693 + 4.59213I$	$-1.56163 - 3.20482I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.52087+0.16310I$ $a=-1.15205-0.98203I$ $b=-1.29593-0.89600I$	$-11.65450+1.76400I$	$-8.09089-0.22537I$
$u=-1.52087+0.16310I$ $a=-1.60159+0.04217I$ $b=-1.39264+0.86643I$	$-7.51693+4.59213I$	$-1.56163-3.20482I$
$u=-1.52087+0.16310I$ $a=-1.99126+0.06689I$ $b=-0.995465+0.542799I$	$-11.65450+7.42025I$	$-8.09089-6.18427I$
$u=-1.52087+0.16310I$ $a=2.33259-0.14304I$ $b=2.24483-1.05775I$	$-11.65450+7.42025I$	$-8.09089-6.18427I$
$u=-1.52087-0.16310I$ $a=1.132330-0.632859I$ $b=0.990662+0.420388I$	$-11.65450-1.76400I$	$-8.09089+0.22537I$
$u=-1.52087-0.16310I$ $a=1.46325-0.14079I$ $b=0.986534+0.078657I$	$-7.51693-4.59213I$	$-1.56163+3.20482I$
$u=-1.52087-0.16310I$ $a=-1.15205+0.98203I$ $b=-1.29593+0.89600I$	$-11.65450-1.76400I$	$-8.09089+0.22537I$
$u=-1.52087-0.16310I$ $a=-1.60159-0.04217I$ $b=-1.39264-0.86643I$	$-7.51693-4.59213I$	$-1.56163+3.20482I$
$u=-1.52087-0.16310I$ $a=-1.99126-0.06689I$ $b=-0.995465-0.542799I$	$-11.65450-7.42025I$	$-8.09089+6.18427I$
$u=-1.52087-0.16310I$ $a=2.33259+0.14304I$ $b=2.24483+1.05775I$	$-11.65450-7.42025I$	$-8.09089+6.18427I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.53904$ $a = -1.256830 + 0.322591I$ $b = -1.04268 + 1.26059I$	-11.4814	$-5.24999 + 0.I$
$u = 1.53904$ $a = -1.256830 - 0.322591I$ $b = -1.04268 - 1.26059I$	-11.4814	$-5.24999 + 0.I$
$u = 1.53904$ $a = 1.35561 + 0.87104I$ $b = 0.800589 - 0.413513I$	$-15.6190 + 2.8281I$	$-11.77925 - 2.97945I$
$u = 1.53904$ $a = 1.35561 - 0.87104I$ $b = 0.800589 + 0.413513I$	$-15.6190 - 2.8281I$	$-11.77925 + 2.97945I$
$u = 1.53904$ $a = 1.56616 + 1.60926I$ $b = 1.62334 + 2.47120I$	$-15.6190 + 2.8281I$	$-11.77925 - 2.97945I$
$u = 1.53904$ $a = 1.56616 - 1.60926I$ $b = 1.62334 - 2.47120I$	$-15.6190 - 2.8281I$	$-11.77925 + 2.97945I$

III.

$\boldsymbol{I_3^u = \langle u^{13}+u^{12}+\cdots+b+2u,\ u^{11}-6u^9+\cdots+a+2,\ u^{14}+2u^{13}+\cdots+2u+1\rangle}$

(i) Arc colorings

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

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

$$a_4 = \begin{pmatrix} -u^{11}+6u^9-13u^7+u^6+14u^5-4u^4-10u^3+5u^2+3u-2 \\ -u^{13}-u^{12}+\cdots+u^2-2u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} u^{13}-8u^{11}+25u^9-39u^7+2u^6+35u^5-7u^4-21u^3+6u^2+5u-1 \\ u^{13}-7u^{11}+\cdots-u+1 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -3u^{13}-3u^{12}+\cdots+2u^2-8u \\ -u^{13}-u^{12}+\cdots-3u^2+2u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 2u^{13}+2u^{12}+\cdots+9u+5 \\ u^{13}-8u^{11}+24u^9-u^8-35u^7+5u^6+29u^5-9u^4-16u^3+6u^2+3u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -u^{13}-u^{12}+\cdots+2u-3 \\ -2u^{13}-2u^{12}+\cdots-3u-1 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u^{13}-2u^{12}+\cdots-10u-1 \\ u^{12}+u^{11}+\cdots+u+1 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u^{13}-2u^{12}+\cdots-10u-1 \\ u^{12}+u^{11}+\cdots+u+1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes
$= -2u^{13}+16u^{11}-49u^9+3u^8+74u^7-15u^6-65u^5+24u^4+37u^3-13u^2-5u-5$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{14} - u^{13} + \cdots + 2u + 1$
c_2, c_9	$u^{14} + 8u^{12} + \cdots + u + 1$
c_3, c_6	$u^{14} + 2u^{13} + \cdots + 5u + 1$
c_4, c_8	$u^{14} + 8u^{12} + \cdots - u + 1$
c_5	$u^{14} + u^{13} + \cdots - 2u + 1$
c_7	$u^{14} + 2u^{13} + \cdots + 2u + 1$
c_{10}, c_{11}	$u^{14} - 2u^{13} + \cdots - 2u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$y^{14} + 9y^{13} + \cdots + 6y + 1$
c_2, c_4, c_8 c_9	$y^{14} + 16y^{13} + \cdots + 25y + 1$
c_3, c_6	$y^{14} - 4y^{13} + \cdots - 7y + 1$
c_7, c_{10}, c_{11}	$y^{14} - 16y^{13} + \cdots + 2y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.914089+0.533567I$ $a=\ \ 0.165475-0.801291I$ $b=-0.414186+0.217927I$	$-4.27946+2.06111I$	$-5.58371-2.18778I$
$u=-0.914089-0.533567I$ $a=\ \ 0.165475+0.801291I$ $b=-0.414186-0.217927I$	$-4.27946-2.06111I$	$-5.58371+2.18778I$
$u=\ \ 0.639246+0.615121I$ $a=-0.398775+0.418812I$ $b=-0.853967-0.278506I$	$-1.91266-2.33379I$	$-7.27584+5.70217I$
$u=\ \ 0.639246-0.615121I$ $a=-0.398775-0.418812I$ $b=-0.853967+0.278506I$	$-1.91266+2.33379I$	$-7.27584-5.70217I$
$u=\ \ 0.878231+0.123651I$ $a=-0.362803-0.376792I$ $b=-0.464478-0.739423I$	$-1.38673-2.23365I$	$-1.78196+2.13694I$
$u=\ \ 0.878231-0.123651I$ $a=-0.362803+0.376792I$ $b=-0.464478+0.739423I$	$-1.38673+2.23365I$	$-1.78196-2.13694I$
$u=-1.41453+0.15062I$ $a=\ \ 1.54661+1.19373I$ $b=\ \ 1.200660+0.246781I$	$-12.27320+4.41428I$	$-8.90552-3.48503I$
$u=-1.41453-0.15062I$ $a=\ \ 1.54661-1.19373I$ $b=\ \ 1.200660-0.246781I$	$-12.27320-4.41428I$	$-8.90552+3.48503I$
$u=\ \ 1.53841+0.05626I$ $a=\ \ 0.092978+0.343432I$ $b=\ \ 0.284029+1.361390I$	$-14.1430+1.3793I$	$-8.26367-0.38542I$
$u=\ \ 1.53841-0.05626I$ $a=\ \ 0.092978-0.343432I$ $b=\ \ 0.284029-1.361390I$	$-14.1430-1.3793I$	$-8.26367+0.38542I$

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.55089+0.15006I$ $a=-1.77076-0.02850I$ $b=-1.48201+0.53476I$	$-9.15749+4.88700I$	$-8.41454-3.92217I$
$u=-1.55089-0.15006I$ $a=-1.77076+0.02850I$ $b=-1.48201-0.53476I$	$-9.15749-4.88700I$	$-8.41454+3.92217I$
$u=-0.176381+0.304536I$ $a=-3.27272+0.24854I$ $b=\quad 0.729960-0.704235I$	$-7.84036-2.64248I$	$-1.77475+0.54497I$
$u=-0.176381-0.304536I$ $a=-3.27272-0.24854I$ $b=\quad 0.729960+0.704235I$	$-7.84036+2.64248I$	$-1.77475-0.54497I$

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u^3+u^2+2u+1)^{12})(u^{14}-u^{13}+\cdots+2u+1)$ $\cdot(u^{23}-14u^{22}+\cdots+608u-64)$
c_2, c_9	$(u^{14}+8u^{12}+\cdots+u+1)(u^{23}+12u^{21}+\cdots+2u+1)$ $\cdot(u^{36}+u^{35}+\cdots-62u+59)$
c_3, c_6	$(u^{14}+2u^{13}+\cdots+5u+1)(u^{23}-2u^{22}+\cdots-10u-1)$ $\cdot(u^{36}-7u^{35}+\cdots-12064u+1913)$
c_4, c_8	$(u^{14}+8u^{12}+\cdots-u+1)(u^{23}+12u^{21}+\cdots+2u+1)$ $\cdot(u^{36}+u^{35}+\cdots-62u+59)$
c_5	$((u^3+u^2+2u+1)^{12})(u^{14}+u^{13}+\cdots-2u+1)$ $\cdot(u^{23}-14u^{22}+\cdots+608u-64)$
c_7	$((u^6-u^5-3u^4+2u^3+2u^2+u-1)^6)(u^{14}+2u^{13}+\cdots+2u+1)$ $\cdot(u^{23}+9u^{22}+\cdots-16u+8)$
c_{10}, c_{11}	$((u^6-u^5-3u^4+2u^3+2u^2+u-1)^6)(u^{14}-2u^{13}+\cdots-2u+1)$ $\cdot(u^{23}+9u^{22}+\cdots-16u+8)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_5	$((y^3+3y^2+2y-1)^{12})(y^{14}+9y^{13}+\cdots+6y+1)$ $\cdot(y^{23}+12y^{22}+\cdots-3072y-4096)$
c_2, c_4, c_8 c_9	$(y^{14}+16y^{13}+\cdots+25y+1)(y^{23}+24y^{22}+\cdots+2y-1)$ $\cdot(y^{36}+35y^{35}+\cdots-69452y+3481)$
c_3, c_6	$(y^{14}-4y^{13}+\cdots-7y+1)(y^{23}-16y^{22}+\cdots+58y-1)$ $\cdot(y^{36}-17y^{35}+\cdots-71361608y+3659569)$
c_7, c_{10}, c_{11}	$((y^6-7y^5+\cdots-5y+1)^6)(y^{14}-16y^{13}+\cdots+2y+1)$ $\cdot(y^{23}-23y^{22}+\cdots-32y-64)$