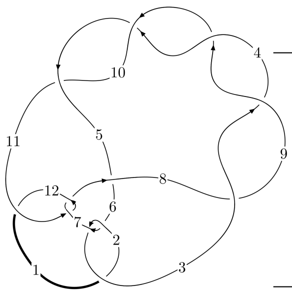
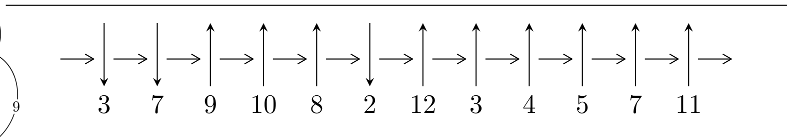
$12n_{0570}$ ($K12n_{0570}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

$$4,9 \xrightarrow[c_9]{} 10 \xrightarrow[c_4]{} 5 \xrightarrow[c_{10}]{} 7,11 \xrightarrow[c_{11}]{} 12 \xrightarrow[c_3]{} 3 \xrightarrow[c_2]{} 2 \xrightarrow[c_1]{} 1 \xrightarrow[c_6]{} 6 \xrightarrow[c_8]{} 8 \twoheadrightarrow c_5, c_7, c_{12}$$

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

$I^u_1 = \langle 6u^{18} - 3u^{17} + \cdots + 4b - 8,\ -5u^{18} + 3u^{17} + \cdots + 4a + 2,\ u^{19} - 2u^{18} + \cdots - 2u + 2\rangle$
$I^u_2 = \langle b + u - 1,\ 3a - 2u + 3,\ u^2 - 3\rangle$
$I^u_3 = \langle a^2u + 2a^2 + 2au + b + 5a - 2u - 2,\ a^3 + 2a^2 - 3au - u + 1,\ u^2 + u - 1\rangle$
$I^u_4 = \langle b - 1,\ a + 1,\ u + 1\rangle$
$I^u_5 = \langle b,\ a + 1,\ u + 1\rangle$
$I^u_6 = \langle b - 2,\ a + 1,\ u - 1\rangle$
$I^u_7 = \langle b - 1,\ a,\ u - 1\rangle$

$I^v_1 = \langle a,\ b - 1,\ v - 1\rangle$

* 8 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 32 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. $I_1^u = \langle 6u^{18}-3u^{17}+\cdots+4b-8,\ -5u^{18}+3u^{17}+\cdots+4a+2,\ u^{19}-2u^{18}+\cdots-2u+2\rangle$

(i) Arc colorings

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

$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u \\ -u^3+u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} \frac{5}{4}u^{18}-\frac{3}{4}u^{17}+\cdots+2u-\frac{1}{2} \\ -\frac{3}{2}u^{18}+\frac{3}{4}u^{17}+\cdots+2u^2+2 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -u^2+1 \\ u^4-2u^2 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} \frac{5}{4}u^{18}-\frac{3}{4}u^{17}+\cdots+2u-\frac{1}{2} \\ -\frac{5}{4}u^{18}+\frac{1}{4}u^{17}+\cdots-u+\frac{3}{2} \end{pmatrix}$$

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

$$a_2 = \begin{pmatrix} -\frac{1}{4}u^{18}+\frac{11}{4}u^{16}+\cdots-\frac{1}{2}u-\frac{1}{2} \\ \frac{1}{4}u^{18}-\frac{5}{2}u^{16}+\cdots+u^2+u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} \frac{1}{4}u^{16}-\frac{5}{2}u^{14}+\cdots-\frac{1}{2}u-\frac{1}{2} \\ \frac{1}{2}u^{11}-\frac{7}{2}u^9+\cdots+\frac{3}{2}u^2+u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -u^7+4u^5-4u^3+2u \\ u^7-3u^5+u \end{pmatrix}$$

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

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 2u^{18}-20u^{16}-4u^{15}+74u^{14}+38u^{13}-118u^{12}-130u^{11}+54u^{10}+186u^9+68u^8-90u^7-112u^6-20u^5+38u^4+62u^3+30u^2+4u+4$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{19}+27u^{18}+\cdots+3437u+121$
c_2, c_6	$u^{19}-u^{18}+\cdots-37u-11$
c_3, c_4, c_8 c_9, c_{10}	$u^{19}-2u^{18}+\cdots-2u+2$
c_5	$u^{19}+5u^{18}+\cdots-2958u+842$
c_7, c_{11}	$u^{19}+u^{18}+\cdots+11u-5$
c_{12}	$u^{19}-3u^{18}+\cdots+261u-25$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{19} - 63y^{18} + \cdots + 5592117y - 14641$
c_2, c_6	$y^{19} - 27y^{18} + \cdots + 3437y - 121$
c_3, c_4, c_8 c_9, c_{10}	$y^{19} - 24y^{18} + \cdots + 195y^2 - 4$
c_5	$y^{19} + 39y^{18} + \cdots + 8404544y - 708964$
c_7, c_{11}	$y^{19} - 3y^{18} + \cdots + 261y - 25$
c_{12}	$y^{19} + 33y^{18} + \cdots + 24021y - 625$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.794152 + 0.543465I$ $a = 0.482447 + 0.204059I$ $b = 0.924151 + 0.772270I$	$-7.34662 - 0.67943I$	$5.65616 + 1.50255I$
$u = -0.794152 - 0.543465I$ $a = 0.482447 - 0.204059I$ $b = 0.924151 - 0.772270I$	$-7.34662 + 0.67943I$	$5.65616 - 1.50255I$
$u = 0.935136 + 0.498632I$ $a = -0.009698 - 0.441743I$ $b = -1.24024 + 1.35546I$	$-6.45737 + 7.68487I$	$7.03505 - 5.77603I$
$u = 0.935136 - 0.498632I$ $a = -0.009698 + 0.441743I$ $b = -1.24024 - 1.35546I$	$-6.45737 - 7.68487I$	$7.03505 + 5.77603I$
$u = -0.787128 + 0.325506I$ $a = 0.150228 + 0.339895I$ $b = -0.48300 - 1.36935I$	$1.07697 - 4.13087I$	$9.45859 + 7.55506I$
$u = -0.787128 - 0.325506I$ $a = 0.150228 - 0.339895I$ $b = -0.48300 + 1.36935I$	$1.07697 + 4.13087I$	$9.45859 - 7.55506I$
$u = -0.071777 + 0.733673I$ $a = 0.15515 - 1.56739I$ $b = -0.214541 - 0.685780I$	$-9.51900 - 3.56143I$	$3.03301 + 2.71216I$
$u = -0.071777 - 0.733673I$ $a = 0.15515 + 1.56739I$ $b = -0.214541 + 0.685780I$	$-9.51900 + 3.56143I$	$3.03301 - 2.71216I$
$u = -0.039838 + 0.447508I$ $a = 1.21035 + 1.34300I$ $b = -0.102434 + 0.177489I$	$-1.13039 + 1.43084I$	$1.52232 - 3.59827I$
$u = -0.039838 - 0.447508I$ $a = 1.21035 - 1.34300I$ $b = -0.102434 - 0.177489I$	$-1.13039 - 1.43084I$	$1.52232 + 3.59827I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.382837$ $a = 0.501969$ $b = 0.660647$	0.831777	13.6610
$u = 1.62442 + 0.15410I$ $a = -0.86935 + 1.16752I$ $b = 1.85650 - 1.36466I$	$0.84264 + 3.32574I$	$7.36493 - 0.96716I$
$u = 1.62442 - 0.15410I$ $a = -0.86935 - 1.16752I$ $b = 1.85650 + 1.36466I$	$0.84264 - 3.32574I$	$7.36493 + 0.96716I$
$u = 1.64903 + 0.08490I$ $a = 0.26722 - 2.31947I$ $b = -0.55282 + 2.88445I$	$9.55424 + 5.66378I$	$11.29825 - 4.88655I$
$u = 1.64903 - 0.08490I$ $a = 0.26722 + 2.31947I$ $b = -0.55282 - 2.88445I$	$9.55424 - 5.66378I$	$11.29825 + 4.88655I$
$u = -1.69418 + 0.14515I$ $a = 1.07205 + 2.00699I$ $b = -1.98554 - 2.27964I$	$2.65549 - 10.25360I$	$8.99721 + 4.95875I$
$u = -1.69418 - 0.14515I$ $a = 1.07205 - 2.00699I$ $b = -1.98554 + 2.27964I$	$2.65549 + 10.25360I$	$8.99721 - 4.95875I$
$u = 1.72122$ $a = -0.936889$ $b = 0.803538$	14.6839	18.0050
$u = -1.74710$ $a = -1.48185$ $b = 2.13166$	11.7122	5.60290

II. $I_2^u = \langle b + u - 1,\ 3a - 2u + 3,\ u^2 - 3 \rangle$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ -3 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} u \\ -2u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} \frac{2}{3}u - 1 \\ -u + 1 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -2 \\ 3 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -\frac{2}{3}u - 1 \\ u + 2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u \\ u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -\frac{5}{3}u + 1 \\ 2u - 1 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -\frac{2}{3}u + 1 \\ u - 1 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -u \\ u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -2 \\ 3 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 12$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_{11} c_{12}	$(u-1)^2$
c_3, c_4, c_5 c_8, c_9, c_{10}	$u^2 - 3$
c_6, c_7	$(u+1)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_6 c_7, c_{11}, c_{12}	$(y-1)^2$
c_3, c_4, c_5 c_8, c_9, c_{10}	$(y-3)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.73205$ $a = 0.154701$ $b = -0.732051$	13.1595	12.0000
$u = -1.73205$ $a = -2.15470$ $b = 2.73205$	13.1595	12.0000

III.

$$\boldsymbol{I_3^u = \langle a^2u + 2a^2 + 2au + b + 5a - 2u - 2,\ a^3 + 2a^2 - 3au - u + 1,\ u^2 + u - 1\rangle}$$

(i) Arc colorings

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

$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

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

$$a_7 = \begin{pmatrix} a \\ -a^2u - 2a^2 - 2au - 5a + 2u + 2 \end{pmatrix}$$

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

$$a_{12} = \begin{pmatrix} a \\ a^2u + 2a^2 + 3au + 4a - 2u - 2 \end{pmatrix}$$

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

$$a_2 = \begin{pmatrix} -a \\ -a^2u - 2a^2 - 3au - 4a + 2u + 2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -a^2 - au - 3a + 2u \\ -a^2u - a^2 - 2au - 2a + 2 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} u \\ -u + 1 \end{pmatrix}$$

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

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 10$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_{12}	$y^6 - 4y^5 - 6y^4 + 13y^3 + 19y^2 + 5y + 1$
c_2, c_6, c_7 c_{11}	$y^6 - 4y^5 + 6y^4 - 7y^3 + 7y^2 - 3y + 1$
c_3, c_4, c_8 c_9, c_{10}	$(y^2 - 3y + 1)^3$
c_5	y^6

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.618034$ $a = 0.365159 + 0.080975I$ $b = 0.626987 - 0.659789I$	0.986960	10.0000
$u = 0.618034$ $a = 0.365159 - 0.080975I$ $b = 0.626987 + 0.659789I$	0.986960	10.0000
$u = 0.618034$ $a = -2.73032$ $b = 0.746026$	0.986960	10.0000
$u = -1.61803$ $a = -0.659441$ $b = -0.238962$	8.88264	10.0000
$u = -1.61803$ $a = -0.67028 + 1.87638I$ $b = 1.11948 - 2.34901I$	8.88264	10.0000
$u = -1.61803$ $a = -0.67028 - 1.87638I$ $b = 1.11948 + 2.34901I$	8.88264	10.0000

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

(i) Arc colorings

$$a_4 = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ -1 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -1 \\ 1 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 1 \\ -1 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 1 \\ -1 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 1 \\ -1 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -1 \\ 1 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 0 \\ 1 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 18$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_6	u
c_3, c_4, c_7 c_8, c_9, c_{10} c_{11}	$u + 1$
c_5, c_{12}	$u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_6	y
c_3, c_4, c_5 c_7, c_8, c_9 c_{10}, c_{11}, c_{12}	$y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I^u_4	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.00000$ $a = -1.00000$ $b = \ \ 1.00000$	4.93480	18.0000

V. $I_5^u = \langle b,\ a+1,\ u+1 \rangle$

(i) Arc colorings

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

$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_5 = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$

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

$$a_{11} = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -1 \\ -1 \end{pmatrix}$$

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

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

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

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

$$a_8 = \begin{pmatrix} 0 \\ 1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 12$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_3, c_4 c_6, c_7, c_{12}	$u-1$
c_2, c_5, c_8 c_9, c_{10}, c_{11}	$u+1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3 c_4, c_5, c_6 c_7, c_8, c_9 c_{10}, c_{11}, c_{12}	$y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_5^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.00000$ $a=-1.00000$ $b=0$	3.28987	12.0000

VI. $I_6^u = \langle b-2,\ a+1,\ u-1 \rangle$

(i) Arc colorings

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

$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$

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

$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$

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

$a_{11} = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$

$a_{12} = \begin{pmatrix} -1 \\ 1 \end{pmatrix}$

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

$a_2 = \begin{pmatrix} -2 \\ 3 \end{pmatrix}$

$a_1 = \begin{pmatrix} -1 \\ 2 \end{pmatrix}$

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

$a_8 = \begin{pmatrix} 0 \\ 1 \end{pmatrix}$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 12$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5, c_6 c_7, c_8, c_9 c_{10}, c_{12}	$u - 1$
c_2, c_3, c_4 c_{11}	$u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3 c_4, c_5, c_6 c_7, c_8, c_9 c_{10}, c_{11}, c_{12}	$y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_6^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.00000$ $a = -1.00000$ $b = 2.00000$	3.28987	12.0000

VII. $\boldsymbol{I_7^u = \langle b-1,\ a,\ u-1 \rangle}$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 0 \\ 1 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ -1 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 0 \\ 1 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -1 \\ 1 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -1 \\ 2 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 0 \\ 1 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ -1 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 0 \\ 1 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 6$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$u+1$
c_2, c_3, c_4 c_6, c_8, c_9 c_{10}	$u-1$
c_7, c_{11}, c_{12}	u

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3 c_4, c_5, c_6 c_8, c_9, c_{10}	$y - 1$
c_7, c_{11}, c_{12}	y

(vi) Complex Volumes and Cusp Shapes

Solutions to I_7^u		$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u =$	1.00000		
$a =$	0	1.64493	6.00000
$b =$	1.00000		

VIII. $I_1^v = \langle a,\ b-1,\ v-1 \rangle$

(i) Arc colorings

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

$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_{11} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 1 \\ -1 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

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

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

$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 0$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_{11} c_{12}	$u - 1$
c_3, c_4, c_5 c_8, c_9, c_{10}	u
c_6, c_7	$u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_6 c_7, c_{11}, c_{12}	$y - 1$
c_3, c_4, c_5 c_8, c_9, c_{10}	y

(vi) Complex Volumes and Cusp Shapes

	Solutions to I_1^v	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$v =$	1.00000		
$a =$	0	0	0
$b =$	1.00000		

IX. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$u(u-1)^5(u+1)(u^6+4u^5+6u^4+7u^3+7u^2+3u+1)$ $\cdot(u^{19}+27u^{18}+\cdots+3437u+121)$
c_2	$u(u-1)^4(u+1)^2(u^6-2u^4-u^3+u^2+u-1)$ $\cdot(u^{19}-u^{18}+\cdots-37u-11)$
c_3, c_4, c_8 c_9, c_{10}	$u(u-1)^2(u+1)^2(u^2-3)(u^2+u-1)^3(u^{19}-2u^{18}+\cdots-2u+2)$
c_5	$u^7(u-1)^2(u+1)^2(u^2-3)(u^{19}+5u^{18}+\cdots-2958u+842)$
c_6	$u(u-1)^3(u+1)^3(u^6-2u^4-u^3+u^2+u-1)$ $\cdot(u^{19}-u^{18}+\cdots-37u-11)$
c_7	$u(u-1)^2(u+1)^4(u^6-2u^4-u^3+u^2+u-1)$ $\cdot(u^{19}+u^{18}+\cdots+11u-5)$
c_{11}	$u(u-1)^3(u+1)^3(u^6-2u^4-u^3+u^2+u-1)$ $\cdot(u^{19}+u^{18}+\cdots+11u-5)$
c_{12}	$u(u-1)^6(u^6-4u^5+6u^4-7u^3+7u^2-3u+1)$ $\cdot(u^{19}-3u^{18}+\cdots+261u-25)$

X. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$y(y-1)^6(y^6-4y^5-6y^4+13y^3+19y^2+5y+1)$ $\cdot(y^{19}-63y^{18}+\cdots+5592117y-14641)$
c_2, c_6	$y(y-1)^6(y^6-4y^5+6y^4-7y^3+7y^2-3y+1)$ $\cdot(y^{19}-27y^{18}+\cdots+3437y-121)$
c_3, c_4, c_8 c_9, c_{10}	$y(y-3)^2(y-1)^4(y^2-3y+1)^3(y^{19}-24y^{18}+\cdots+195y^2-4)$
c_5	$y^7(y-3)^2(y-1)^4(y^{19}+39y^{18}+\cdots+8404544y-708964)$
c_7, c_{11}	$y(y-1)^6(y^6-4y^5+6y^4-7y^3+7y^2-3y+1)$ $\cdot(y^{19}-3y^{18}+\cdots+261y-25)$
c_{12}	$y(y-1)^6(y^6-4y^5-6y^4+13y^3+19y^2+5y+1)$ $\cdot(y^{19}+33y^{18}+\cdots+24021y-625)$