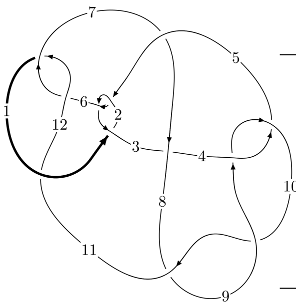
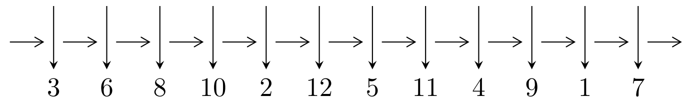
$12a_{0295}$ ($K12a_{0295}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle 3u^{45} - 6u^{44} + \cdots + b + 3,\ -7u^{45} + 17u^{44} + \cdots + 2a - 14,\ u^{46} - 3u^{45} + \cdots + 4u - 2\rangle$$
$$I_2^u = \langle 33684u^{32}a - 254577u^{32} + \cdots + 7807a - 17533,\ 2u^{32}a - 5u^{32} + \cdots - 4a + 3,\ u^{33} + 2u^{32} + \cdots - 2u - 1\rangle$$
$$I_3^u = \langle -u^2 + b - u + 1,\ u^3 + 2a + u - 2,\ u^4 - u^2 + 2\rangle$$
$$I_4^u = \langle b - 1,\ a + 1,\ u + 1\rangle$$
$$I_5^u = \langle b + 1,\ a + 1,\ u - 1\rangle$$
$$I_6^u = \langle b,\ a + 1,\ u - 1\rangle$$
$$I_7^u = \langle b - 1,\ a,\ u - 1\rangle$$
$$I_8^u = \langle -u^3 - u^2 + b - 1,\ u^3 + u^2 + a - u,\ u^4 + 1\rangle$$

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

* 9 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 125 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. $I_1^u = \langle 3u^{45}-6u^{44}+\cdots+b+3,\ -7u^{45}+17u^{44}+\cdots+2a-14,\ u^{46}-3u^{45}+\cdots+4u-2\rangle$

(i) Arc colorings

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

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

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

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

$$a_1 = \begin{pmatrix} \frac{7}{2}u^{45} - \frac{17}{2}u^{44} + \cdots - 10u + 7 \\ -3u^{45} + 6u^{44} + \cdots + 7u - 3 \end{pmatrix}$$

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

$$a_{12} = \begin{pmatrix} -\frac{3}{2}u^{45} + \frac{7}{2}u^{44} + \cdots + 4u - 2 \\ u^{45} - 2u^{44} + \cdots - 3u + 1 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} u^4-u^2+1 \\ -u^4 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} u^9-2u^7+3u^5-2u^3+u \\ -u^9+u^7-u^5+u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} \frac{3}{2}u^{45} - \frac{7}{2}u^{44} + \cdots - 5u + 3 \\ -u^{45} + 2u^{44} + \cdots + 2u - 1 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -u^8+u^6-u^4+1 \\ -u^{10}+2u^8-3u^6+2u^4-u^2 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} \frac{3}{2}u^{45} - \frac{3}{2}u^{44} + \cdots - 3u - 1 \\ 2u^{45} - 7u^{44} + \cdots - 7u + 7 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -2u^{45} - 8u^{44} + \cdots - 2u + 4$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_{11}	$u^{46} + 19u^{45} + \cdots + 19u + 1$
c_2, c_5, c_6 c_{12}	$u^{46} + u^{45} + \cdots - 3u - 1$
c_3	$u^{46} + 3u^{45} + \cdots - 1200u - 194$
c_4, c_9	$u^{46} - 3u^{45} + \cdots + 4u - 2$
c_7	$u^{46} - 21u^{45} + \cdots - 27796u + 2962$
c_8, c_{10}	$u^{46} + 15u^{45} + \cdots + 24u + 4$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_{11}	$y^{46} + 29y^{45} + \cdots - 83y + 1$
c_2, c_5, c_6 c_{12}	$y^{46} - 19y^{45} + \cdots - 19y + 1$
c_3	$y^{46} - 3y^{45} + \cdots - 95192y + 37636$
c_4, c_9	$y^{46} - 15y^{45} + \cdots - 24y + 4$
c_7	$y^{46} + 9y^{45} + \cdots - 47342296y + 8773444$
c_8, c_{10}	$y^{46} + 33y^{45} + \cdots - 448y + 16$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.987506 + 0.181737I$ $a = 0.353118 - 0.157922I$ $b = 1.104500 + 0.248593I$	$-0.01578 + 1.44584I$	$-12.13380 - 1.16212I$
$u = -0.987506 - 0.181737I$ $a = 0.353118 + 0.157922I$ $b = 1.104500 - 0.248593I$	$-0.01578 - 1.44584I$	$-12.13380 + 1.16212I$
$u = 0.624787 + 0.751761I$ $a = 0.501815 - 1.195750I$ $b = 0.27921 + 1.52890I$	$-1.03505 - 2.62041I$	$-12.25047 + 5.62134I$
$u = 0.624787 - 0.751761I$ $a = 0.501815 + 1.195750I$ $b = 0.27921 - 1.52890I$	$-1.03505 + 2.62041I$	$-12.25047 - 5.62134I$
$u = 0.932010 + 0.249601I$ $a = -0.114325 - 0.813437I$ $b = -0.108703 + 0.755311I$	$0.48280 - 3.89081I$	$-12.3138 + 7.4640I$
$u = 0.932010 - 0.249601I$ $a = -0.114325 + 0.813437I$ $b = -0.108703 - 0.755311I$	$0.48280 + 3.89081I$	$-12.3138 - 7.4640I$
$u = 1.03795$ $a = -0.425099$ $b = 0.441184$	-5.06706	-16.3430
$u = -0.656480 + 0.675086I$ $a = 0.421198 + 0.564603I$ $b = 0.364479 - 0.548670I$	$-0.056532 - 0.529762I$	$-9.92309 + 2.36241I$
$u = -0.656480 - 0.675086I$ $a = 0.421198 - 0.564603I$ $b = 0.364479 + 0.548670I$	$-0.056532 + 0.529762I$	$-9.92309 - 2.36241I$
$u = 0.957126 + 0.460438I$ $a = -0.173508 + 1.059270I$ $b = 0.660431 - 0.373019I$	$-2.47921 + 5.69529I$	$-15.9789 - 3.1429I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.957126 - 0.460438I$ $a = -0.173508 - 1.059270I$ $b = 0.660431 + 0.373019I$	$-2.47921 - 5.69529I$	$-15.9789 + 3.1429I$
$u = -1.069760 + 0.055455I$ $a = -0.606557 - 0.782831I$ $b = 0.110005 - 0.642276I$	$-6.77795 - 3.22325I$	$-19.8771 + 4.6627I$
$u = -1.069760 - 0.055455I$ $a = -0.606557 + 0.782831I$ $b = 0.110005 + 0.642276I$	$-6.77795 + 3.22325I$	$-19.8771 - 4.6627I$
$u = -1.064240 + 0.153207I$ $a = -0.689961 + 0.702318I$ $b = -1.50763 - 0.88276I$	$-4.26259 + 11.90660I$	$-17.9405 - 9.1988I$
$u = -1.064240 - 0.153207I$ $a = -0.689961 - 0.702318I$ $b = -1.50763 + 0.88276I$	$-4.26259 - 11.90660I$	$-17.9405 + 9.1988I$
$u = 0.687563 + 0.827125I$ $a = -3.10547 - 1.38060I$ $b = 3.34622 - 0.75008I$	$2.36760 + 11.90970I$	$-10.87368 - 6.80495I$
$u = 0.687563 - 0.827125I$ $a = -3.10547 + 1.38060I$ $b = 3.34622 + 0.75008I$	$2.36760 - 11.90970I$	$-10.87368 + 6.80495I$
$u = 0.863194 + 0.660192I$ $a = 0.498220 - 0.862239I$ $b = 0.078376 + 0.670779I$	$1.90782 - 2.56381I$	$-6.43986 + 3.61212I$
$u = 0.863194 - 0.660192I$ $a = 0.498220 + 0.862239I$ $b = 0.078376 - 0.670779I$	$1.90782 + 2.56381I$	$-6.43986 - 3.61212I$
$u = 0.726882 + 0.813399I$ $a = 2.23393 + 0.39337I$ $b = -2.01663 + 0.93850I$	$6.48924 + 0.76026I$	$-5.47164 + 1.79704I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.726882 - 0.813399I$ $a = 2.23393 - 0.39337I$ $b = -2.01663 - 0.93850I$	$6.48924 - 0.76026I$	$-5.47164 - 1.79704I$
$u = -0.761471 + 0.808932I$ $a = -1.55718 + 1.35768I$ $b = 2.01414 + 0.41223I$	$7.06928 - 2.51400I$	$-5.65805 + 2.94720I$
$u = -0.761471 - 0.808932I$ $a = -1.55718 - 1.35768I$ $b = 2.01414 - 0.41223I$	$7.06928 + 2.51400I$	$-5.65805 - 2.94720I$
$u = -0.815580 + 0.797638I$ $a = 2.73888 - 0.86284I$ $b = -2.59337 - 1.69608I$	$4.61938 + 8.64883I$	$-8.79522 - 7.48354I$
$u = -0.815580 - 0.797638I$ $a = 2.73888 + 0.86284I$ $b = -2.59337 + 1.69608I$	$4.61938 - 8.64883I$	$-8.79522 + 7.48354I$
$u = 0.996141 + 0.593536I$ $a = -0.527497 + 0.683258I$ $b = -0.730063 + 0.019372I$	$-3.55351 - 9.40266I$	$-16.3537 + 9.9962I$
$u = 0.996141 - 0.593536I$ $a = -0.527497 - 0.683258I$ $b = -0.730063 - 0.019372I$	$-3.55351 + 9.40266I$	$-16.3537 - 9.9962I$
$u = -0.991896 + 0.659941I$ $a = 0.425990 + 0.411638I$ $b = -0.026130 - 0.933046I$	$-1.04556 + 5.73841I$	$-11.05429 - 7.34426I$
$u = -0.991896 - 0.659941I$ $a = 0.425990 - 0.411638I$ $b = -0.026130 + 0.933046I$	$-1.04556 - 5.73841I$	$-11.05429 + 7.34426I$
$u = -0.929854 + 0.761506I$ $a = -1.21193 + 2.23762I$ $b = 3.11564 - 0.90437I$	$4.26620 - 2.79398I$	$-9.33642 + 2.11087I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.929854 - 0.761506I$ $a = -1.21193 - 2.23762I$ $b = 3.11564 + 0.90437I$	$4.26620 + 2.79398I$	$-9.33642 - 2.11087I$
$u = 1.016200 + 0.678830I$ $a = 1.28721 - 0.66759I$ $b = 0.11699 + 1.72866I$	$-2.18659 - 2.82834I$	$-14.4909 + 0.I$
$u = 1.016200 - 0.678830I$ $a = 1.28721 + 0.66759I$ $b = 0.11699 - 1.72866I$	$-2.18659 + 2.82834I$	$-14.4909 + 0.I$
$u = -0.973166 + 0.747201I$ $a = 1.45384 - 1.05199I$ $b = -2.40070 - 0.28498I$	$6.41991 + 8.35794I$	$-7.07346 - 8.25317I$
$u = -0.973166 - 0.747201I$ $a = 1.45384 + 1.05199I$ $b = -2.40070 + 0.28498I$	$6.41991 - 8.35794I$	$-7.07346 + 8.25317I$
$u = 0.994894 + 0.735728I$ $a = -1.01818 - 2.04408I$ $b = 2.40436 + 0.51843I$	$5.66935 - 6.57875I$	$-7.01388 + 3.35805I$
$u = 0.994894 - 0.735728I$ $a = -1.01818 + 2.04408I$ $b = 2.40436 - 0.51843I$	$5.66935 + 6.57875I$	$-7.01388 - 3.35805I$
$u = 1.019120 + 0.727882I$ $a = 2.04434 + 2.70103I$ $b = -3.96989 - 0.01287I$	$1.3568 - 17.7372I$	$-12.0000 + 11.5303I$
$u = 1.019120 - 0.727882I$ $a = 2.04434 - 2.70103I$ $b = -3.96989 + 0.01287I$	$1.3568 + 17.7372I$	$-12.0000 - 11.5303I$
$u = 0.420136 + 0.618183I$ $a = 0.091569 + 0.240275I$ $b = 0.775179 - 0.545225I$	$-2.09088 + 4.75292I$	$-12.79925 - 4.51898I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.420136 - 0.618183I$ $a = 0.091569 - 0.240275I$ $b = 0.775179 + 0.545225I$	$-2.09088 - 4.75292I$	$-12.79925 + 4.51898I$
$u = 0.175033 + 0.649364I$ $a = -0.38522 + 1.64160I$ $b = 0.405182 + 0.541225I$	$-0.25533 - 9.46021I$	$-10.70549 + 7.71683I$
$u = 0.175033 - 0.649364I$ $a = -0.38522 - 1.64160I$ $b = 0.405182 - 0.541225I$	$-0.25533 + 9.46021I$	$-10.70549 - 7.71683I$
$u = 0.045128 + 0.600618I$ $a = 0.796115 - 1.095320I$ $b = -0.290859 - 0.327309I$	$3.23919 + 1.06884I$	$-5.04128 - 2.43336I$
$u = 0.045128 - 0.600618I$ $a = 0.796115 + 1.095320I$ $b = -0.290859 + 0.327309I$	$3.23919 - 1.06884I$	$-5.04128 + 2.43336I$
$u = -0.454468$ $a = 0.512306$ $b = 0.297284$	-0.646543	-15.2580

II. $I_2^u = \langle 33684u^{32}a - 254577u^{32} + \cdots + 7807a - 17533,\ 2u^{32}a - 5u^{32} + \cdots - 4a + 3,\ u^{33} + 2u^{32} + \cdots - 2u - 1\rangle$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} a \\ -0.156182au^{32} + 1.18040u^{32} + \cdots - 0.0361987a + 0.0812951 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -u^2 + 1 \\ u^2 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -0.0987940au^{32} - 0.489797u^{32} + \cdots + 0.728290a + 1.20993 \\ 0.228199au^{32} + 1.59843u^{32} + \cdots - 0.339819a - 0.210575 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} u^4 - u^2 + 1 \\ -u^4 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u^9 - 2u^7 + 3u^5 - 2u^3 + u \\ -u^9 + u^7 - u^5 + u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -0.00898127au^{32} - 0.408163u^{32} + \cdots + 1.42984a - 0.162734 \\ 0.228199au^{32} + 1.59843u^{32} + \cdots - 0.339819a - 0.210575 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -u^8 + u^6 - u^4 + 1 \\ -u^{10} + 2u^8 - 3u^6 + 2u^4 - u^2 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -0.0361987au^{32} + 2.08130u^{32} + \cdots + 1.25544a - 0.472103 \\ 2u^{31} - 10u^{29} + \cdots - au - 2 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes

$= 4u^{32} - 20u^{30} - 4u^{29} + 72u^{28} + 16u^{27} - 180u^{26} - 56u^{25} + 360u^{24} + 128u^{23} - 580u^{22} - 248u^{21} + 772u^{20} + 384u^{19} - 848u^{18} - 500u^{17} + 760u^{16} + 548u^{15} - 532u^{14} - 496u^{13} + 264u^{12} + 372u^{11} - 52u^{10} - 220u^9 - 48u^8 + 92u^7 + 56u^6 - 24u^5 - 28u^4 - 4u^3 + 4u^2 - 10$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_{11}	$u^{66} + 36u^{65} + \cdots + 492u + 49$
c_2, c_5, c_6 c_{12}	$u^{66} + 2u^{65} + \cdots - 32u - 7$
c_3	$(u^{33} + u^{31} + \cdots - 8u - 1)^2$
c_4, c_9	$(u^{33} + 2u^{32} + \cdots - 2u - 1)^2$
c_7	$(u^{33} + 6u^{32} + \cdots + 128u + 23)^2$
c_8, c_{10}	$(u^{33} + 10u^{32} + \cdots - 2u + 1)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_{11}	$y^{66} - 12y^{65} + \cdots - 14116y + 2401$
c_2, c_5, c_6 c_{12}	$y^{66} - 36y^{65} + \cdots - 492y + 49$
c_3	$(y^{33} + 2y^{32} + \cdots - 2y - 1)^2$
c_4, c_9	$(y^{33} - 10y^{32} + \cdots - 2y - 1)^2$
c_7	$(y^{33} + 14y^{32} + \cdots - 2062y - 529)^2$
c_8, c_{10}	$(y^{33} + 26y^{32} + \cdots + 6y - 1)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.014300 + 0.118417I$ $a = -0.526921 + 0.504523I$ $b = -1.16627 - 1.84224I$	$-6.89406 + 3.13953I$	$-20.3425 - 5.3611I$
$u = -1.014300 + 0.118417I$ $a = -1.16439 - 0.93165I$ $b = -0.343946 - 0.462272I$	$-6.89406 + 3.13953I$	$-20.3425 - 5.3611I$
$u = -1.014300 - 0.118417I$ $a = -0.526921 - 0.504523I$ $b = -1.16627 + 1.84224I$	$-6.89406 - 3.13953I$	$-20.3425 + 5.3611I$
$u = -1.014300 - 0.118417I$ $a = -1.16439 + 0.93165I$ $b = -0.343946 + 0.462272I$	$-6.89406 - 3.13953I$	$-20.3425 + 5.3611I$
$u = -0.877024 + 0.414488I$ $a = 0.264209 + 0.985853I$ $b = 0.172888 - 0.597335I$	$-0.262282 - 0.735872I$	$-12.67313 - 0.76984I$
$u = -0.877024 + 0.414488I$ $a = -0.147704 - 0.570462I$ $b = 0.899250 + 0.290937I$	$-0.262282 - 0.735872I$	$-12.67313 - 0.76984I$
$u = -0.877024 - 0.414488I$ $a = 0.264209 - 0.985853I$ $b = 0.172888 + 0.597335I$	$-0.262282 + 0.735872I$	$-12.67313 + 0.76984I$
$u = -0.877024 - 0.414488I$ $a = -0.147704 + 0.570462I$ $b = 0.899250 - 0.290937I$	$-0.262282 + 0.735872I$	$-12.67313 + 0.76984I$
$u = 1.039060 + 0.162429I$ $a = -0.574713 - 0.703403I$ $b = -1.17278 + 1.02414I$	$-1.75770 - 6.51294I$	$-14.8938 + 5.9887I$
$u = 1.039060 + 0.162429I$ $a = 0.456077 + 0.016656I$ $b = 1.178570 - 0.286332I$	$-1.75770 - 6.51294I$	$-14.8938 + 5.9887I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.039060 - 0.162429I$ $a = -0.574713 + 0.703403I$ $b = -1.17278 - 1.02414I$	$-1.75770 + 6.51294I$	$-14.8938 - 5.9887I$
$u = 1.039060 - 0.162429I$ $a = 0.456077 - 0.016656I$ $b = 1.178570 + 0.286332I$	$-1.75770 + 6.51294I$	$-14.8938 - 5.9887I$
$u = 0.705062 + 0.789522I$ $a = 0.16155 - 1.51310I$ $b = 1.09869 + 1.85563I$	$-0.79038 + 2.85888I$	$-11.96531 - 3.31371I$
$u = 0.705062 + 0.789522I$ $a = -2.85859 - 2.52886I$ $b = 3.42979 + 0.01935I$	$-0.79038 + 2.85888I$	$-11.96531 - 3.31371I$
$u = 0.705062 - 0.789522I$ $a = 0.16155 + 1.51310I$ $b = 1.09869 - 1.85563I$	$-0.79038 - 2.85888I$	$-11.96531 + 3.31371I$
$u = 0.705062 - 0.789522I$ $a = -2.85859 + 2.52886I$ $b = 3.42979 - 0.01935I$	$-0.79038 - 2.85888I$	$-11.96531 + 3.31371I$
$u = -0.752029 + 0.757937I$ $a = -0.20561 + 1.43451I$ $b = 1.55176 - 1.42868I$	$0.112103 + 0.911954I$	$-9.65130 - 3.13722I$
$u = -0.752029 + 0.757937I$ $a = 3.32131 + 0.09950I$ $b = -1.95320 - 2.11555I$	$0.112103 + 0.911954I$	$-9.65130 - 3.13722I$
$u = -0.752029 - 0.757937I$ $a = -0.20561 - 1.43451I$ $b = 1.55176 + 1.42868I$	$0.112103 - 0.911954I$	$-9.65130 + 3.13722I$
$u = -0.752029 - 0.757937I$ $a = 3.32131 - 0.09950I$ $b = -1.95320 + 2.11555I$	$0.112103 - 0.911954I$	$-9.65130 + 3.13722I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.930115$ $a = -1.58086$ $b = -0.257939$	-5.02884	-16.7130
$u = 0.930115$ $a = -0.0786238$ $b = 1.80245$	-5.02884	-16.7130
$u = 0.906723 + 0.575511I$ $a = -1.40173 + 0.68737I$ $b = 1.36348 - 0.94558I$	$-4.48415 - 2.21654I$	$-18.1634 + 2.4842I$
$u = 0.906723 + 0.575511I$ $a = -0.09683 + 1.72632I$ $b = -1.322680 + 0.118060I$	$-4.48415 - 2.21654I$	$-18.1634 + 2.4842I$
$u = 0.906723 - 0.575511I$ $a = -1.40173 - 0.68737I$ $b = 1.36348 + 0.94558I$	$-4.48415 + 2.21654I$	$-18.1634 - 2.4842I$
$u = 0.906723 - 0.575511I$ $a = -0.09683 - 1.72632I$ $b = -1.322680 - 0.118060I$	$-4.48415 + 2.21654I$	$-18.1634 - 2.4842I$
$u = -0.703249 + 0.821130I$ $a = 1.96275 - 0.43057I$ $b = -1.87462 - 0.57170I$	$4.82578 - 6.26770I$	$-7.81018 + 3.24511I$
$u = -0.703249 + 0.821130I$ $a = -2.82714 + 1.57243I$ $b = 3.17494 + 0.60153I$	$4.82578 - 6.26770I$	$-7.81018 + 3.24511I$
$u = -0.703249 - 0.821130I$ $a = 1.96275 + 0.43057I$ $b = -1.87462 + 0.57170I$	$4.82578 + 6.26770I$	$-7.81018 - 3.24511I$
$u = -0.703249 - 0.821130I$ $a = -2.82714 - 1.57243I$ $b = 3.17494 - 0.60153I$	$4.82578 + 6.26770I$	$-7.81018 - 3.24511I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.789844 + 0.799846I$ $a = -1.08493 - 1.02737I$ $b = 1.39311 - 0.44605I$	$6.34781 - 3.04389I$	$-6.17382 + 2.90426I$
$u = 0.789844 + 0.799846I$ $a = 2.75022 + 0.72353I$ $b = -2.50757 + 1.57404I$	$6.34781 - 3.04389I$	$-6.17382 + 2.90426I$
$u = 0.789844 - 0.799846I$ $a = -1.08493 + 1.02737I$ $b = 1.39311 + 0.44605I$	$6.34781 + 3.04389I$	$-6.17382 - 2.90426I$
$u = 0.789844 - 0.799846I$ $a = 2.75022 - 0.72353I$ $b = -2.50757 - 1.57404I$	$6.34781 + 3.04389I$	$-6.17382 - 2.90426I$
$u = -0.963141 + 0.632636I$ $a = 0.708655 + 1.042530I$ $b = 0.261323 - 1.067210I$	$-1.26824 + 5.40417I$	$-13.1681 - 6.2152I$
$u = -0.963141 + 0.632636I$ $a = 0.264954 - 0.626134I$ $b = -0.793319 - 0.573051I$	$-1.26824 + 5.40417I$	$-13.1681 - 6.2152I$
$u = -0.963141 - 0.632636I$ $a = 0.708655 - 1.042530I$ $b = 0.261323 + 1.067210I$	$-1.26824 - 5.40417I$	$-13.1681 + 6.2152I$
$u = -0.963141 - 0.632636I$ $a = 0.264954 + 0.626134I$ $b = -0.793319 + 0.573051I$	$-1.26824 - 5.40417I$	$-13.1681 + 6.2152I$
$u = -0.600852 + 0.549903I$ $a = 0.601180 + 0.828746I$ $b = -0.013590 - 0.731533I$	$-0.353626 - 0.577287I$	$-10.91131 + 0.00847I$
$u = -0.600852 + 0.549903I$ $a = 0.0498087 + 0.0120002I$ $b = 0.754916 + 0.119020I$	$-0.353626 - 0.577287I$	$-10.91131 + 0.00847I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.600852 - 0.549903I$ $a = 0.601180 - 0.828746I$ $b = -0.013590 + 0.731533I$	$-0.353626 + 0.577287I$	$-10.91131 - 0.00847I$
$u = -0.600852 - 0.549903I$ $a = 0.0498087 - 0.0120002I$ $b = 0.754916 - 0.119020I$	$-0.353626 + 0.577287I$	$-10.91131 - 0.00847I$
$u = -0.965280 + 0.710510I$ $a = 1.58839 - 0.20834I$ $b = -0.92369 - 1.80389I$	$-0.54191 + 4.66940I$	$-11.13674 - 2.61989I$
$u = -0.965280 + 0.710510I$ $a = -0.75089 + 2.83490I$ $b = 2.70961 - 1.66384I$	$-0.54191 + 4.66940I$	$-11.13674 - 2.61989I$
$u = -0.965280 - 0.710510I$ $a = 1.58839 + 0.20834I$ $b = -0.92369 + 1.80389I$	$-0.54191 - 4.66940I$	$-11.13674 + 2.61989I$
$u = -0.965280 - 0.710510I$ $a = -0.75089 - 2.83490I$ $b = 2.70961 + 1.66384I$	$-0.54191 - 4.66940I$	$-11.13674 + 2.61989I$
$u = 0.950716 + 0.751979I$ $a = 0.994748 + 0.610801I$ $b = -1.70633 + 0.12370I$	$5.85251 - 2.78863I$	$-7.09178 + 2.57820I$
$u = 0.950716 + 0.751979I$ $a = -1.20786 - 2.30306I$ $b = 3.04193 + 0.84808I$	$5.85251 - 2.78863I$	$-7.09178 + 2.57820I$
$u = 0.950716 - 0.751979I$ $a = 0.994748 - 0.610801I$ $b = -1.70633 - 0.12370I$	$5.85251 + 2.78863I$	$-7.09178 - 2.57820I$
$u = 0.950716 - 0.751979I$ $a = -1.20786 + 2.30306I$ $b = 3.04193 - 0.84808I$	$5.85251 + 2.78863I$	$-7.09178 - 2.57820I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.998168 + 0.717071I$ $a = 1.71463 - 0.23872I$ $b = -0.48172 + 2.14666I$	$-1.67944 - 8.54919I$	$-13.8165 + 8.1542I$
$u = 0.998168 + 0.717071I$ $a = 3.01380 + 2.02593I$ $b = -4.03037 + 0.96164I$	$-1.67944 - 8.54919I$	$-13.8165 + 8.1542I$
$u = 0.998168 - 0.717071I$ $a = 1.71463 + 0.23872I$ $b = -0.48172 - 2.14666I$	$-1.67944 + 8.54919I$	$-13.8165 - 8.1542I$
$u = 0.998168 - 0.717071I$ $a = 3.01380 - 2.02593I$ $b = -4.03037 - 0.96164I$	$-1.67944 + 8.54919I$	$-13.8165 - 8.1542I$
$u = -1.009690 + 0.731074I$ $a = -1.04859 + 1.84188I$ $b = 2.16527 - 0.25007I$	$3.89061 + 12.09090I$	$-9.56427 - 8.11579I$
$u = -1.009690 + 0.731074I$ $a = 2.11702 - 2.33765I$ $b = -3.76945 - 0.18941I$	$3.89061 + 12.09090I$	$-9.56427 - 8.11579I$
$u = -1.009690 - 0.731074I$ $a = -1.04859 - 1.84188I$ $b = 2.16527 + 0.25007I$	$3.89061 - 12.09090I$	$-9.56427 + 8.11579I$
$u = -1.009690 - 0.731074I$ $a = 2.11702 + 2.33765I$ $b = -3.76945 + 0.18941I$	$3.89061 - 12.09090I$	$-9.56427 + 8.11579I$
$u = -0.129012 + 0.620035I$ $a = 0.848786 + 0.874401I$ $b = -0.502349 + 0.193772I$	$1.97739 + 4.07711I$	$-7.27799 - 3.88410I$
$u = -0.129012 + 0.620035I$ $a = 0.01854 - 1.69641I$ $b = 0.209851 - 0.482305I$	$1.97739 + 4.07711I$	$-7.27799 - 3.88410I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.129012-0.620035I$ $a=0.848786-0.874401I$ $b=-0.502349-0.193772I$	$1.97739-4.07711I$	$-7.27799+3.88410I$
$u=-0.129012-0.620035I$ $a=0.01854+1.69641I$ $b=0.209851+0.482305I$	$1.97739-4.07711I$	$-7.27799+3.88410I$
$u=0.159946+0.484229I$ $a=-0.0999950+0.0977691I$ $b=1.209480-0.222381I$	$-3.28246-1.28200I$	$-12.00329+5.16805I$
$u=0.159946+0.484229I$ $a=0.48900+2.99039I$ $b=0.174771+0.129985I$	$-3.28246-1.28200I$	$-12.00329+5.16805I$
$u=0.159946-0.484229I$ $a=-0.0999950-0.0977691I$ $b=1.209480+0.222381I$	$-3.28246+1.28200I$	$-12.00329-5.16805I$
$u=0.159946-0.484229I$ $a=0.48900-2.99039I$ $b=0.174771-0.129985I$	$-3.28246+1.28200I$	$-12.00329-5.16805I$

III. $\boldsymbol{I_3^u = \langle -u^2 + b - u + 1,\ u^3 + 2a + u - 2,\ u^4 - u^2 + 2 \rangle}$

(i) Arc colorings

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

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

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

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

$$a_1 = \begin{pmatrix} -\frac{1}{2}u^3 - \frac{1}{2}u + 1 \\ u^2 + u - 1 \end{pmatrix}$$

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

$$a_{12} = \begin{pmatrix} -\frac{1}{2}u^3 - u^2 - \frac{1}{2}u + 2 \\ 2u^2 + u - 1 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} u \\ u^3 - u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -\frac{1}{2}u^3 + \frac{1}{2}u + 1 \\ u^3 + u^2 - 1 \end{pmatrix}$$

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

$$a_6 = \begin{pmatrix} -\frac{1}{2}u^3 - \frac{1}{2}u + 1 \\ u^2 + u - 1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 4u^2 - 20$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.978318 + 0.676097I$ $a = 0.713457 - 1.154170I$ $b = 0.47832 + 1.99897I$	$-2.46740 - 5.33349I$	$-18.0000 + 5.2915I$
$u = 0.978318 - 0.676097I$ $a = 0.713457 + 1.154170I$ $b = 0.47832 - 1.99897I$	$-2.46740 + 5.33349I$	$-18.0000 - 5.2915I$
$u = -0.978318 + 0.676097I$ $a = 1.28654 - 1.15417I$ $b = -1.47832 - 0.64678I$	$-2.46740 + 5.33349I$	$-18.0000 - 5.2915I$
$u = -0.978318 - 0.676097I$ $a = 1.28654 + 1.15417I$ $b = -1.47832 + 0.64678I$	$-2.46740 - 5.33349I$	$-18.0000 + 5.2915I$

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

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -24$

(iv) u-Polynomials at the component

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

(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^u_4	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.00000$ $a = -1.00000$ $b = 1.00000$	-6.57974	-24.0000

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

(i) Arc colorings

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

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

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

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

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

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

$a_{12} = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$

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

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

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

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

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -24$

(iv) u-Polynomials at the component

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

(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
$u = 1.00000$ $a = -1.00000$ $b = -1.00000$	-6.57974	-24.0000

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

(i) Arc colorings

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

(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_5	u
c_3, c_4, c_6 c_9, c_{12}	$u - 1$
c_7, c_8, c_{10} c_{11}	$u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_5	y
c_3, c_4, 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
$u = \quad 1.00000$ $a = -1.00000$ $b = \quad 0$	-4.93480	-18.0000

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

(i) Arc colorings

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

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -18$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7, c_8 c_{10}	$u+1$
c_2, c_3, c_4 c_5, c_9	$u-1$
c_6, 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_7 c_8, c_9, c_{10}	$y - 1$
c_6, 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	-4.93480	-18.0000
$b =$	1.00000		

VIII. $\boldsymbol{I^u_8 = \langle -u^3 - u^2 + b - 1,\ u^3 + u^2 + a - u,\ u^4 + 1\rangle}$

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -16$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_8^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.707107 + 0.707107I$ $a = 1.41421 - 1.00000I$ $b = 0.29289 + 1.70711I$	-1.64493	-16.0000
$u = 0.707107 - 0.707107I$ $a = 1.41421 + 1.00000I$ $b = 0.29289 - 1.70711I$	-1.64493	-16.0000
$u = -0.707107 + 0.707107I$ $a = -1.41421 + 1.00000I$ $b = 1.70711 - 0.29289I$	-1.64493	-16.0000
$u = -0.707107 - 0.707107I$ $a = -1.41421 - 1.00000I$ $b = 1.70711 + 0.29289I$	-1.64493	-16.0000

IX. $\boldsymbol{I_1^v = \langle a,\ b-1,\ v+1 \rangle}$

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -12$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^v	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$v = -1.00000$ $a = 0$ $b = 1.00000$	-3.28987	-12.0000

X. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_{11}	$u(u-1)^{11}(u+1)(u^{46}+19u^{45}+\cdots+19u+1)$ $\cdot(u^{66}+36u^{65}+\cdots+492u+49)$
c_2, c_6	$u(u-1)^{6}(u+1)^{6}(u^{46}+u^{45}+\cdots-3u-1)$ $\cdot(u^{66}+2u^{65}+\cdots-32u-7)$
c_3	$u(u-1)^{3}(u+1)(u^4+1)(u^4-u^2+2)(u^{33}+u^{31}+\cdots-8u-1)^2$ $\cdot(u^{46}+3u^{45}+\cdots-1200u-194)$
c_4, c_9	$u(u-1)^{3}(u+1)(u^4+1)(u^4-u^2+2)(u^{33}+2u^{32}+\cdots-2u-1)^2$ $\cdot(u^{46}-3u^{45}+\cdots+4u-2)$
c_5, c_{12}	$u(u-1)^{7}(u+1)^{5}(u^{46}+u^{45}+\cdots-3u-1)$ $\cdot(u^{66}+2u^{65}+\cdots-32u-7)$
c_7	$u(u-1)(u+1)^{3}(u^4+1)(u^4-u^2+2)(u^{33}+6u^{32}+\cdots+128u+23)^2$ $\cdot(u^{46}-21u^{45}+\cdots-27796u+2962)$
c_8	$u(u-1)^{2}(u+1)^{2}(u^2+1)^2(u^2-u+2)^2$ $\cdot((u^{33}+10u^{32}+\cdots-2u+1)^2)(u^{46}+15u^{45}+\cdots+24u+4)$
c_{10}	$u(u+1)^{4}(u^2+1)^2(u^2+u+2)^2(u^{33}+10u^{32}+\cdots-2u+1)^2$ $\cdot(u^{46}+15u^{45}+\cdots+24u+4)$

XI. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_{11}	$y(y-1)^{12}(y^{46}+29y^{45}+\cdots-83y+1)$ $\cdot(y^{66}-12y^{65}+\cdots-14116y+2401)$
c_2, c_5, c_6 c_{12}	$y(y-1)^{12}(y^{46}-19y^{45}+\cdots-19y+1)$ $\cdot(y^{66}-36y^{65}+\cdots-492y+49)$
c_3	$y(y-1)^4(y^2+1)^2(y^2-y+2)^2(y^{33}+2y^{32}+\cdots-2y-1)^2$ $\cdot(y^{46}-3y^{45}+\cdots-95192y+37636)$
c_4, c_9	$y(y-1)^4(y^2+1)^2(y^2-y+2)^2(y^{33}-10y^{32}+\cdots-2y-1)^2$ $\cdot(y^{46}-15y^{45}+\cdots-24y+4)$
c_7	$y(y-1)^4(y^2+1)^2(y^2-y+2)^2$ $\cdot(y^{33}+14y^{32}+\cdots-2062y-529)^2$ $\cdot(y^{46}+9y^{45}+\cdots-47342296y+8773444)$
c_8, c_{10}	$y(y-1)^4(y+1)^4(y^2+3y+4)^2(y^{33}+26y^{32}+\cdots+6y-1)^2$ $\cdot(y^{46}+33y^{45}+\cdots-448y+16)$