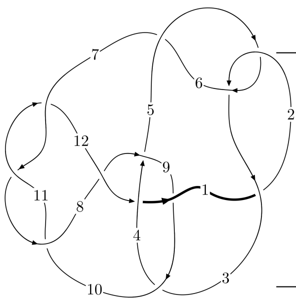
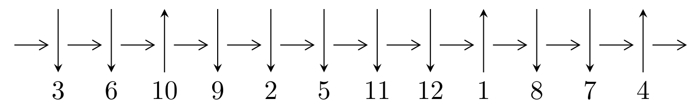
$12a_{0441}$ $(K12a_{0441})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle 3.27711 \times 10^{102} u^{101} + 1.55836 \times 10^{103} u^{100} + \cdots + 2.62772 \times 10^{103} b - 1.25743 \times 10^{103},$$
$$3.78313 \times 10^{102} u^{101} - 5.58370 \times 10^{102} u^{100} + \cdots + 2.62772 \times 10^{103} a - 4.51200 \times 10^{103},\ u^{102} + 2u^{101} + \cdots +$$
$$I_2^u = \langle b - u + 1,\ u^2 + a + 1,\ u^3 - u^2 + 2u - 1\rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 105 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. $\boldsymbol{I^u_1 = \langle 3.28 \times 10^{102} u^{101} + 1.56 \times 10^{103} u^{100} + \cdots + 2.63 \times 10^{103} b - 1.26 \times 10^{103},\ 3.78 \times 10^{102} u^{101} - 5.58 \times 10^{102} u^{100} + \cdots + 2.63 \times 10^{103} a - 4.51 \times 10^{103},\ u^{102} + 2u^{101} + \cdots + 4u - 1 \rangle}$

(i) Arc colorings

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -u \\ u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -0.143970u^{101} + 0.212492u^{100} + \cdots - 15.9951u + 1.71708 \\ -0.124713u^{101} - 0.593046u^{100} + \cdots - 1.79673u + 0.478524 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u^4 - u^2 + 1 \\ u^4 + 2u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -0.0438647u^{101} + 0.121507u^{100} + \cdots - 17.6760u + 1.94288 \\ 0.0129440u^{101} + 0.0941687u^{100} + \cdots - 2.42475u + 0.661696 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 0.340303u^{101} + 0.920651u^{100} + \cdots + 4.12833u - 3.41343 \\ 0.0802727u^{101} - 0.159772u^{100} + \cdots + 5.51631u - 0.420576 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 0.280386u^{101} + 0.439282u^{100} + \cdots + 4.90809u - 0.660980 \\ 0.0907918u^{101} + 0.172191u^{100} + \cdots + 2.45351u - 0.598287 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -0.0822981u^{101} + 0.0664369u^{100} + \cdots - 18.3878u + 2.28500 \\ 0.0138280u^{101} + 0.101020u^{100} + \cdots - 3.05023u + 0.777047 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -0.0489390u^{101} - 0.0545099u^{100} + \cdots - 0.777862u - 1.55095 \\ 0.00990874u^{101} - 0.00655573u^{100} + \cdots + 2.52993u + 0.271094 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.789125u^{101} - 1.26697u^{100} + \cdots - 29.4788u - 4.11553$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{102} + 32u^{101} + \cdots - 3u + 1$
c_2, c_5	$u^{102} + 4u^{101} + \cdots + 11u + 1$
c_3	$u^{102} + 2u^{101} + \cdots + 5470u - 5977$
c_4	$u^{102} + 4u^{101} + \cdots - 19212u + 1231$
c_7, c_{10}, c_{11}	$u^{102} - 2u^{101} + \cdots - 4u - 1$
c_8	$u^{102} + 2u^{101} + \cdots - 18596u - 1873$
c_9	$u^{102} - 7u^{101} + \cdots - 12u + 8$
c_{12}	$u^{102} + 10u^{101} + \cdots + u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{102} + 80y^{101} + \cdots + 523y + 1$
c_2, c_5	$y^{102} - 32y^{101} + \cdots + 3y + 1$
c_3	$y^{102} - 126y^{101} + \cdots - 2034750148y + 35724529$
c_4	$y^{102} - 98y^{101} + \cdots - 154232356y + 1515361$
c_7, c_{10}, c_{11}	$y^{102} + 90y^{101} + \cdots - 76y + 1$
c_8	$y^{102} - 14y^{101} + \cdots - 28907108y + 3508129$
c_9	$y^{102} - 21y^{101} + \cdots - 2512y + 64$
c_{12}	$y^{102} + 4y^{101} + \cdots + 3y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.342733 + 0.923254I$ $a = 1.25977 + 1.12229I$ $b = -0.051328 - 0.792366I$	$-2.25655 - 4.00745I$	0
$u = -0.342733 - 0.923254I$ $a = 1.25977 - 1.12229I$ $b = -0.051328 + 0.792366I$	$-2.25655 + 4.00745I$	0
$u = -0.514550 + 0.838295I$ $a = 1.20538 + 1.04569I$ $b = 0.070366 - 0.834664I$	$3.88303 - 9.31616I$	0
$u = -0.514550 - 0.838295I$ $a = 1.20538 - 1.04569I$ $b = 0.070366 + 0.834664I$	$3.88303 + 9.31616I$	0
$u = 0.425257 + 0.838879I$ $a = 0.879897 + 0.420710I$ $b = -0.375466 + 0.246656I$	$-1.98033 - 3.36359I$	0
$u = 0.425257 - 0.838879I$ $a = 0.879897 - 0.420710I$ $b = -0.375466 - 0.246656I$	$-1.98033 + 3.36359I$	0
$u = -0.500531 + 0.793245I$ $a = -1.22432 - 1.03190I$ $b = -0.093334 + 0.814325I$	$4.68549 - 3.34925I$	0
$u = -0.500531 - 0.793245I$ $a = -1.22432 + 1.03190I$ $b = -0.093334 - 0.814325I$	$4.68549 + 3.34925I$	0
$u = 0.933119 + 0.035557I$ $a = -0.0065528 + 0.1389500I$ $b = -0.001034 - 0.823033I$	$-0.53243 + 2.66744I$	0
$u = 0.933119 - 0.035557I$ $a = -0.0065528 - 0.1389500I$ $b = -0.001034 + 0.823033I$	$-0.53243 - 2.66744I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.808708 + 0.440383I$ $a = -0.208416 - 0.088095I$ $b = 0.060032 - 0.647083I$	$0.21594 - 5.19806I$	0
$u = 0.808708 - 0.440383I$ $a = -0.208416 + 0.088095I$ $b = 0.060032 + 0.647083I$	$0.21594 + 5.19806I$	0
$u = -0.010693 + 1.087270I$ $a = -1.62121 - 0.96416I$ $b = 0.706796 + 0.696680I$	$1.33913 - 1.67285I$	0
$u = -0.010693 - 1.087270I$ $a = -1.62121 + 0.96416I$ $b = 0.706796 - 0.696680I$	$1.33913 + 1.67285I$	0
$u = 0.740386 + 0.492813I$ $a = 0.260593 + 0.176271I$ $b = -0.072170 + 0.583829I$	$0.478204 + 0.201766I$	0
$u = 0.740386 - 0.492813I$ $a = 0.260593 - 0.176271I$ $b = -0.072170 - 0.583829I$	$0.478204 - 0.201766I$	0
$u = -0.812573 + 0.288229I$ $a = -0.117709 - 0.083189I$ $b = 0.73296 + 1.64728I$	$2.13668 + 13.96830I$	$-6.00000 - 9.62755I$
$u = -0.812573 - 0.288229I$ $a = -0.117709 + 0.083189I$ $b = 0.73296 - 1.64728I$	$2.13668 - 13.96830I$	$-6.00000 + 9.62755I$
$u = 0.829100 + 0.228200I$ $a = -0.0236605 + 0.0272508I$ $b = -0.027412 - 0.754278I$	$-3.97163 - 1.15270I$	$-20.5841 + 5.1449I$
$u = 0.829100 - 0.228200I$ $a = -0.0236605 - 0.0272508I$ $b = -0.027412 + 0.754278I$	$-3.97163 + 1.15270I$	$-20.5841 - 5.1449I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.790346+0.296589I$ $a=\quad 0.153251+0.039686I$ $b=-0.73825-1.64533I$	$3.07625+7.87052I$	$-4.36541-5.15887I$
$u=-0.790346-0.296589I$ $a=\quad 0.153251-0.039686I$ $b=-0.73825+1.64533I$	$3.07625-7.87052I$	$-4.36541+5.15887I$
$u=-0.199745+1.154830I$ $a=\quad 1.47863+1.38460I$ $b=-0.302032-1.143370I$	$-0.89312+2.34840I$	0
$u=-0.199745-1.154830I$ $a=\quad 1.47863-1.38460I$ $b=-0.302032+1.143370I$	$-0.89312-2.34840I$	0
$u=-0.766287+0.215154I$ $a=\quad 0.0300001+0.0787510I$ $b=\quad 0.73843+1.63200I$	$-4.47188+8.10704I$	$-11.13307-8.33149I$
$u=-0.766287-0.215154I$ $a=\quad 0.0300001-0.0787510I$ $b=\quad 0.73843-1.63200I$	$-4.47188-8.10704I$	$-11.13307+8.33149I$
$u=\quad 0.500154+1.103880I$ $a=\quad 1.049060+0.042967I$ $b=-0.630409+0.460401I$	$2.74383-7.71085I$	0
$u=\quad 0.500154-1.103880I$ $a=\quad 1.049060-0.042967I$ $b=-0.630409-0.460401I$	$2.74383+7.71085I$	0
$u=\quad 0.155063+1.233840I$ $a=\quad 1.24065+1.16763I$ $b=-1.10883-1.73815I$	$5.11217+0.61098I$	0
$u=\quad 0.155063-1.233840I$ $a=\quad 1.24065-1.16763I$ $b=-1.10883+1.73815I$	$5.11217-0.61098I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.452368 + 1.162730I$ $a = -1.143030 + 0.022639I$ $b = 0.723069 - 0.486545I$	$3.16141 - 2.23441I$	0
$u = 0.452368 - 1.162730I$ $a = -1.143030 - 0.022639I$ $b = 0.723069 + 0.486545I$	$3.16141 + 2.23441I$	0
$u = 0.038972 + 1.250760I$ $a = -1.002410 - 0.513576I$ $b = 0.98835 + 1.28441I$	$5.01539 - 4.42939I$	0
$u = 0.038972 - 1.250760I$ $a = -1.002410 + 0.513576I$ $b = 0.98835 - 1.28441I$	$5.01539 + 4.42939I$	0
$u = 0.197981 + 1.258870I$ $a = -2.35159 - 0.10811I$ $b = 1.89635 - 0.03836I$	$2.06036 - 2.18071I$	0
$u = 0.197981 - 1.258870I$ $a = -2.35159 + 0.10811I$ $b = 1.89635 + 0.03836I$	$2.06036 + 2.18071I$	0
$u = -0.686380 + 0.231259I$ $a = 0.086597 - 0.289788I$ $b = -0.73508 - 1.64042I$	$-0.56630 + 4.76337I$	$-4.66700 - 7.02795I$
$u = -0.686380 - 0.231259I$ $a = 0.086597 + 0.289788I$ $b = -0.73508 + 1.64042I$	$-0.56630 - 4.76337I$	$-4.66700 + 7.02795I$
$u = 0.223234 + 1.299150I$ $a = 2.27543 + 2.56027I$ $b = -2.10409 - 2.82514I$	$1.70310 - 2.94491I$	0
$u = 0.223234 - 1.299150I$ $a = 2.27543 - 2.56027I$ $b = -2.10409 + 2.82514I$	$1.70310 + 2.94491I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.657256 + 0.131190I$ $a = 0.225297 + 0.506371I$ $b = 0.77257 + 1.69014I$	$-3.90267 + 0.82212I$	$-12.21728 - 6.17449I$
$u = -0.657256 - 0.131190I$ $a = 0.225297 - 0.506371I$ $b = 0.77257 - 1.69014I$	$-3.90267 - 0.82212I$	$-12.21728 + 6.17449I$
$u = -0.617707 + 0.239610I$ $a = 1.37527 + 0.42240I$ $b = 0.739097 - 0.917208I$	$3.02844 + 6.45887I$	$-4.21756 - 8.81537I$
$u = -0.617707 - 0.239610I$ $a = 1.37527 - 0.42240I$ $b = 0.739097 + 0.917208I$	$3.02844 - 6.45887I$	$-4.21756 + 8.81537I$
$u = -0.177916 + 1.330800I$ $a = -0.99335 + 1.18279I$ $b = 1.55957 + 0.12336I$	$1.96203 + 2.33421I$	0
$u = -0.177916 - 1.330800I$ $a = -0.99335 - 1.18279I$ $b = 1.55957 - 0.12336I$	$1.96203 - 2.33421I$	0
$u = 0.225615 + 1.345060I$ $a = 2.80377 + 1.41185I$ $b = -2.43909 - 1.61759I$	$6.34710 - 6.20555I$	0
$u = 0.225615 - 1.345060I$ $a = 2.80377 - 1.41185I$ $b = -2.43909 + 1.61759I$	$6.34710 + 6.20555I$	0
$u = 0.210413 + 1.349260I$ $a = -2.82627 - 1.27891I$ $b = 2.43475 + 1.45854I$	$6.53621 - 0.46405I$	0
$u = 0.210413 - 1.349260I$ $a = -2.82627 + 1.27891I$ $b = 2.43475 - 1.45854I$	$6.53621 + 0.46405I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.564461 + 0.288826I$ $a = -1.45930 - 0.55769I$ $b = -0.656253 + 0.805623I$	$4.06468 + 0.52556I$	$-1.22749 - 3.19069I$
$u = -0.564461 - 0.288826I$ $a = -1.45930 + 0.55769I$ $b = -0.656253 - 0.805623I$	$4.06468 - 0.52556I$	$-1.22749 + 3.19069I$
$u = -0.257602 + 1.349260I$ $a = -2.53428 - 0.90364I$ $b = 1.69422 + 1.98927I$	$0.78505 + 4.13766I$	0
$u = -0.257602 - 1.349260I$ $a = -2.53428 + 0.90364I$ $b = 1.69422 - 1.98927I$	$0.78505 - 4.13766I$	0
$u = 0.242875 + 1.359570I$ $a = 0.97200 - 1.04626I$ $b = -0.72711 + 1.42868I$	$3.38448 - 3.66037I$	0
$u = 0.242875 - 1.359570I$ $a = 0.97200 + 1.04626I$ $b = -0.72711 - 1.42868I$	$3.38448 + 3.66037I$	0
$u = 0.602639 + 0.125822I$ $a = -0.448733 - 0.049040I$ $b = 0.340562 + 0.820327I$	$-1.36014 - 0.57030I$	$-7.00686 + 0.66688I$
$u = 0.602639 - 0.125822I$ $a = -0.448733 + 0.049040I$ $b = 0.340562 - 0.820327I$	$-1.36014 + 0.57030I$	$-7.00686 - 0.66688I$
$u = -0.152168 + 1.381700I$ $a = -2.36104 - 1.32263I$ $b = 1.38536 + 1.86708I$	$9.51148 - 1.78647I$	0
$u = -0.152168 - 1.381700I$ $a = -2.36104 + 1.32263I$ $b = 1.38536 - 1.86708I$	$9.51148 + 1.78647I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.058050 + 1.390210I$ $a = -0.214325 - 0.385890I$ $b = 0.432491 + 1.037990I$	$4.90639 - 4.31612I$	0
$u = 0.058050 - 1.390210I$ $a = -0.214325 + 0.385890I$ $b = 0.432491 - 1.037990I$	$4.90639 + 4.31612I$	0
$u = -0.100985 + 1.388210I$ $a = 0.439921 - 0.436767I$ $b = -0.848224 - 0.452009I$	$6.93748 - 0.32378I$	0
$u = -0.100985 - 1.388210I$ $a = 0.439921 + 0.436767I$ $b = -0.848224 + 0.452009I$	$6.93748 + 0.32378I$	0
$u = -0.178930 + 1.391970I$ $a = 2.40118 + 1.27682I$ $b = -1.45376 - 1.92801I$	$10.02930 + 4.70521I$	0
$u = -0.178930 - 1.391970I$ $a = 2.40118 - 1.27682I$ $b = -1.45376 + 1.92801I$	$10.02930 - 4.70521I$	0
$u = 0.593982$ $a = 2.73604$ $b = -2.20828$	-2.38410	54.6630
$u = 0.583003 + 0.101933I$ $a = 2.45217 + 0.05429I$ $b = -1.70633 + 0.09811I$	$1.74385 - 3.26779I$	$2.88737 - 10.90513I$
$u = 0.583003 - 0.101933I$ $a = 2.45217 - 0.05429I$ $b = -1.70633 - 0.09811I$	$1.74385 + 3.26779I$	$2.88737 + 10.90513I$
$u = -0.190695 + 0.559763I$ $a = -1.34414 - 1.17459I$ $b = -0.160913 + 0.440826I$	$1.11243 - 1.44612I$	$0.13718 + 1.97472I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.190695 - 0.559763I$ $a = -1.34414 + 1.17459I$ $b = -0.160913 - 0.440826I$	$1.11243 + 1.44612I$	$0.13718 - 1.97472I$
$u = -0.246055 + 1.387440I$ $a = 0.121500 + 1.311960I$ $b = 0.773792 - 0.480688I$	$8.20256 + 9.62941I$	0
$u = -0.246055 - 1.387440I$ $a = 0.121500 - 1.311960I$ $b = 0.773792 + 0.480688I$	$8.20256 - 9.62941I$	0
$u = -0.22191 + 1.39757I$ $a = 0.020878 - 1.176100I$ $b = -0.822452 + 0.305397I$	$9.42255 + 3.42449I$	0
$u = -0.22191 - 1.39757I$ $a = 0.020878 + 1.176100I$ $b = -0.822452 - 0.305397I$	$9.42255 - 3.42449I$	0
$u = -0.27472 + 1.38951I$ $a = 2.35251 + 1.00781I$ $b = -1.61512 - 1.94063I$	$4.58757 + 8.26514I$	0
$u = -0.27472 - 1.38951I$ $a = 2.35251 - 1.00781I$ $b = -1.61512 + 1.94063I$	$4.58757 - 8.26514I$	0
$u = 0.34342 + 1.37583I$ $a = -1.072820 + 0.491427I$ $b = 0.745414 - 0.899850I$	$1.06522 - 5.38443I$	0
$u = 0.34342 - 1.37583I$ $a = -1.072820 - 0.491427I$ $b = 0.745414 + 0.899850I$	$1.06522 + 5.38443I$	0
$u = -0.31148 + 1.38686I$ $a = -2.25082 - 0.95011I$ $b = 1.61105 + 1.90755I$	$0.60926 + 12.00430I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.31148 - 1.38686I$ $a = -2.25082 + 0.95011I$ $b = 1.61105 - 1.90755I$	$0.60926 - 12.00430I$	0
$u = 0.546311 + 0.122192I$ $a = -2.39457 - 0.12609I$ $b = 1.57755 - 0.07278I$	$1.85856 + 2.29830I$	$-0.8280 - 14.5266I$
$u = 0.546311 - 0.122192I$ $a = -2.39457 + 0.12609I$ $b = 1.57755 + 0.07278I$	$1.85856 - 2.29830I$	$-0.8280 + 14.5266I$
$u = -0.31557 + 1.42872I$ $a = 2.20776 + 1.04807I$ $b = -1.59195 - 1.92018I$	$8.5800 + 11.8770I$	0
$u = -0.31557 - 1.42872I$ $a = 2.20776 - 1.04807I$ $b = -1.59195 + 1.92018I$	$8.5800 - 11.8770I$	0
$u = -0.32703 + 1.42851I$ $a = -2.18439 - 1.04009I$ $b = 1.58858 + 1.91809I$	$7.6091 + 18.0913I$	0
$u = -0.32703 - 1.42851I$ $a = -2.18439 + 1.04009I$ $b = 1.58858 - 1.91809I$	$7.6091 - 18.0913I$	0
$u = -0.394024 + 0.351464I$ $a = 1.012870 - 0.727446I$ $b = -0.69461 - 1.41217I$	$4.60683 + 2.47380I$	$-0.27300 - 5.84452I$
$u = -0.394024 - 0.351464I$ $a = 1.012870 + 0.727446I$ $b = -0.69461 + 1.41217I$	$4.60683 - 2.47380I$	$-0.27300 + 5.84452I$
$u = 0.29807 + 1.47853I$ $a = 0.803266 - 0.456206I$ $b = -0.489347 + 0.902235I$	$6.74208 - 3.64259I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.29807 - 1.47853I$ $a = 0.803266 + 0.456206I$ $b = -0.489347 - 0.902235I$	$6.74208 + 3.64259I$	0
$u = 0.32601 + 1.47662I$ $a = -0.852223 + 0.429271I$ $b = 0.532308 - 0.869967I$	$6.32365 - 9.37051I$	0
$u = 0.32601 - 1.47662I$ $a = -0.852223 - 0.429271I$ $b = 0.532308 + 0.869967I$	$6.32365 + 9.37051I$	0
$u = -0.04746 + 1.51688I$ $a = -0.149728 - 0.206078I$ $b = -0.283967 - 0.439872I$	$12.42370 - 1.87684I$	0
$u = -0.04746 - 1.51688I$ $a = -0.149728 + 0.206078I$ $b = -0.283967 + 0.439872I$	$12.42370 + 1.87684I$	0
$u = -0.02637 + 1.52770I$ $a = 0.192831 + 0.142910I$ $b = 0.225667 + 0.481937I$	$11.9305 - 7.9869I$	0
$u = -0.02637 - 1.52770I$ $a = 0.192831 - 0.142910I$ $b = 0.225667 - 0.481937I$	$11.9305 + 7.9869I$	0
$u = -0.274164 + 0.383680I$ $a = -1.44345 + 0.76664I$ $b = 0.73919 + 1.26681I$	$4.13708 - 3.56002I$	$-0.866491 + 0.092998I$
$u = -0.274164 - 0.383680I$ $a = -1.44345 - 0.76664I$ $b = 0.73919 - 1.26681I$	$4.13708 + 3.56002I$	$-0.866491 - 0.092998I$
$u = -0.469679$ $a = 2.06635$ $b = 1.26384$	-2.34235	7.23550

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.157431 + 0.042000I$ $a = -3.47332 - 1.95737I$ $b = 0.632255 + 0.234499I$	$-1.37921 - 0.33811I$	$-8.16224 + 0.09301I$
$u = 0.157431 - 0.042000I$ $a = -3.47332 + 1.95737I$ $b = 0.632255 - 0.234499I$	$-1.37921 + 0.33811I$	$-8.16224 - 0.09301I$

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

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -5u^2 + 4u - 16$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.215080 + 1.307140I$ $a = 0.662359 - 0.562280I$ $b = -0.78492 + 1.30714I$	$1.37919 - 2.82812I$	$-6.82789 + 2.41717I$
$u = 0.215080 - 1.307140I$ $a = 0.662359 + 0.562280I$ $b = -0.78492 - 1.30714I$	$1.37919 + 2.82812I$	$-6.82789 - 2.41717I$
$u = 0.569840$ $a = -1.32472$ $b = -0.430160$	-2.75839	-15.3440

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u-1)^3)(u^{102}+32u^{101}+\cdots-3u+1)$
c_2	$((u-1)^3)(u^{102}+4u^{101}+\cdots+11u+1)$
c_3	$(u^3-u^2+1)(u^{102}+2u^{101}+\cdots+5470u-5977)$
c_4	$(u^3-u^2+1)(u^{102}+4u^{101}+\cdots-19212u+1231)$
c_5	$((u+1)^3)(u^{102}+4u^{101}+\cdots+11u+1)$
c_6	$((u+1)^3)(u^{102}+32u^{101}+\cdots-3u+1)$
c_7	$(u^3-u^2+2u-1)(u^{102}-2u^{101}+\cdots-4u-1)$
c_8	$(u^3+u^2-1)(u^{102}+2u^{101}+\cdots-18596u-1873)$
c_9	$u^3(u^{102}-7u^{101}+\cdots-12u+8)$
c_{10}, c_{11}	$(u^3+u^2+2u+1)(u^{102}-2u^{101}+\cdots-4u-1)$
c_{12}	$((u-1)^3)(u^{102}+10u^{101}+\cdots+u-1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_6	$((y-1)^3)(y^{102}+80y^{101}+\cdots+523y+1)$
c_2, c_5	$((y-1)^3)(y^{102}-32y^{101}+\cdots+3y+1)$
c_3	$(y^3-y^2+2y-1)(y^{102}-126y^{101}+\cdots-2.03475\times10^9y+3.57245\times10^7)$
c_4	$(y^3-y^2+2y-1)(y^{102}-98y^{101}+\cdots-1.54232\times10^8y+1515361)$
c_7, c_{10}, c_{11}	$(y^3+3y^2+2y-1)(y^{102}+90y^{101}+\cdots-76y+1)$
c_8	$(y^3-y^2+2y-1)(y^{102}-14y^{101}+\cdots-2.89071\times10^7y+3508129)$
c_9	$y^3(y^{102}-21y^{101}+\cdots-2512y+64)$
c_{12}	$((y-1)^3)(y^{102}+4y^{101}+\cdots+3y+1)$