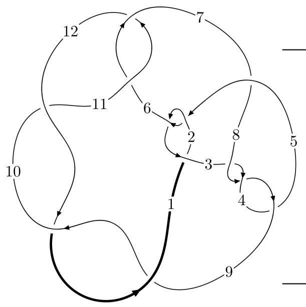
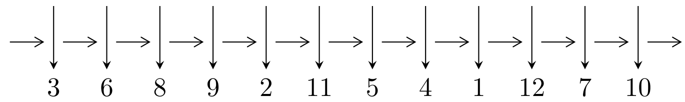
$12a_{0277}$ ($K12a_{0277}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -4.72311 \times 10^{64} u^{79} + 9.32849 \times 10^{65} u^{78} + \cdots + 1.78584 \times 10^{64} b + 1.98266 \times 10^{65},$$
$$1.08221 \times 10^{65} u^{79} - 2.14479 \times 10^{66} u^{78} + \cdots + 1.78584 \times 10^{64} a - 3.42835 \times 10^{65},\ u^{80} - 20u^{79} + \cdots - 18u +$$
$$I_2^u = \langle b^2 - 2,\ -u^2 + a + u - 2,\ u^3 - u^2 + 2u - 1 \rangle$$
$$I_3^u = \langle b,\ u^2 + a - u + 2,\ u^3 - u^2 + 2u - 1 \rangle$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 89 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. $\boldsymbol{I_1^u = \langle -4.72\times 10^{64}u^{79} + 9.33\times 10^{65}u^{78} + \cdots + 1.79\times 10^{64}b + 1.98\times 10^{65},\ 1.08\times 10^{65}u^{79} - 2.14\times 10^{66}u^{78} + \cdots + 1.79\times 10^{64}a - 3.43\times 10^{65},\ u^{80} - 20u^{79} + \cdots - 18u + 1\rangle}$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -6.05997u^{79} + 120.100u^{78} + \cdots - 283.148u + 19.1974 \\ 2.64476u^{79} - 52.2359u^{78} + \cdots + 160.871u - 11.1021 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -3.41521u^{79} + 67.8640u^{78} + \cdots - 122.277u + 8.09533 \\ 2.64476u^{79} - 52.2359u^{78} + \cdots + 160.871u - 11.1021 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 2.78759u^{79} - 55.0401u^{78} + \cdots + 4.23430u + 2.44867 \\ -2.71435u^{79} + 53.7245u^{78} + \cdots - 169.151u + 11.1549 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 3.75953u^{79} - 74.3293u^{78} + \cdots + 112.373u - 6.62197 \\ -1.90562u^{79} + 37.5370u^{78} + \cdots - 107.936u + 6.96219 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -3.45746u^{79} + 68.4432u^{78} + \cdots - 98.6276u + 5.02931 \\ 1.66130u^{79} - 32.7533u^{78} + \cdots + 100.748u - 6.43094 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -4.58743u^{79} + 90.5934u^{78} + \cdots - 281.163u + 21.8214 \\ 0.879640u^{79} - 17.2874u^{78} + \cdots + 40.9055u - 3.15319 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} u^2 + 1 \\ u^4 + 2u^2 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -3.15319u^{79} + 62.1841u^{78} + \cdots - 201.223u + 15.8519 \\ 0.849761u^{79} - 16.8147u^{78} + \cdots + 48.0720u - 3.70779 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 5.49769u^{79} - 108.641u^{78} + \cdots + 342.310u - 39.1178$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{80} + 38u^{79} + \cdots + 15621u + 529$
c_2, c_5	$u^{80} + 4u^{79} + \cdots - 163u - 23$
c_3, c_4, c_8	$u^{80} + u^{79} + \cdots - 8u - 8$
c_6, c_{11}	$u^{80} - 2u^{79} + \cdots - 4u - 1$
c_7	$u^{80} - 3u^{79} + \cdots + 5400u + 1000$
c_9, c_{10}, c_{12}	$u^{80} + 20u^{79} + \cdots + 18u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{80} + 18y^{79} + \cdots - 20758597y + 279841$
c_2, c_5	$y^{80} - 38y^{79} + \cdots - 15621y + 529$
c_3, c_4, c_8	$y^{80} - 73y^{79} + \cdots + 576y + 64$
c_6, c_{11}	$y^{80} - 20y^{79} + \cdots - 18y + 1$
c_7	$y^{80} + 11y^{79} + \cdots + 9560000y + 1000000$
c_9, c_{10}, c_{12}	$y^{80} + 84y^{79} + \cdots + 86y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.514598 + 0.797614I$ $a = -0.182271 + 0.963044I$ $b = -0.166867 - 0.621031I$	$1.34935 - 2.65440I$	0
$u = 0.514598 - 0.797614I$ $a = -0.182271 - 0.963044I$ $b = -0.166867 + 0.621031I$	$1.34935 + 2.65440I$	0
$u = 0.930722 + 0.185711I$ $a = 0.009280 + 0.280137I$ $b = 0.181905 - 0.585150I$	$-2.18248 + 1.71695I$	0
$u = 0.930722 - 0.185711I$ $a = 0.009280 - 0.280137I$ $b = 0.181905 + 0.585150I$	$-2.18248 - 1.71695I$	0
$u = 0.919274 + 0.137908I$ $a = 0.747010 + 0.189533I$ $b = 1.288870 - 0.122433I$	$-5.31070 + 0.42006I$	0
$u = 0.919274 - 0.137908I$ $a = 0.747010 - 0.189533I$ $b = 1.288870 + 0.122433I$	$-5.31070 - 0.42006I$	0
$u = 1.030150 + 0.302517I$ $a = -0.848263 - 0.262462I$ $b = -1.366380 + 0.243133I$	$-7.10040 + 4.78774I$	0
$u = 1.030150 - 0.302517I$ $a = -0.848263 + 0.262462I$ $b = -1.366380 - 0.243133I$	$-7.10040 - 4.78774I$	0
$u = 0.609392 + 0.691381I$ $a = 0.204257 + 0.417749I$ $b = 0.629301 - 0.385404I$	$-1.82971 - 3.50991I$	0
$u = 0.609392 - 0.691381I$ $a = 0.204257 - 0.417749I$ $b = 0.629301 + 0.385404I$	$-1.82971 + 3.50991I$	0

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u =$	$0.755355 + 0.786820I$		
$a =$	$0.28069 - 1.41735I$	$-3.40751 - 5.86732I$	0
$b =$	$1.347050 + 0.254095I$		
$u =$	$0.755355 - 0.786820I$		
$a =$	$0.28069 + 1.41735I$	$-3.40751 + 5.86732I$	0
$b =$	$1.347050 - 0.254095I$		
$u =$	$0.788627 + 0.790526I$		
$a =$	$0.437053 - 0.837105I$	$-0.40460 - 7.35219I$	0
$b =$	$0.269993 + 0.717932I$		
$u =$	$0.788627 - 0.790526I$		
$a =$	$0.437053 + 0.837105I$	$-0.40460 + 7.35219I$	0
$b =$	$0.269993 - 0.717932I$		
$u =$	$0.684330 + 0.553457I$		
$a =$	$0.01541 + 2.37497I$	$-8.24545 - 2.75079I$	0
$b =$	$-1.388830 - 0.162566I$		
$u =$	$0.684330 - 0.553457I$		
$a =$	$0.01541 - 2.37497I$	$-8.24545 + 2.75079I$	0
$b =$	$-1.388830 + 0.162566I$		
$u =$	$-0.127842 + 0.864691I$		
$a =$	$-0.255160 + 0.396206I$	$-1.23948 - 4.76112I$	0
$b =$	$1.260690 + 0.244422I$		
$u =$	$-0.127842 - 0.864691I$		
$a =$	$-0.255160 - 0.396206I$	$-1.23948 + 4.76112I$	0
$b =$	$1.260690 - 0.244422I$		
$u =$	$0.419774 + 1.097820I$		
$a =$	$0.077772 - 0.334119I$	$-1.55006 - 4.38158I$	0
$b =$	$1.194940 + 0.059585I$		
$u =$	$0.419774 - 1.097820I$		
$a =$	$0.077772 + 0.334119I$	$-1.55006 + 4.38158I$	0
$b =$	$1.194940 - 0.059585I$		

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.680437 + 0.465530I$ $a = -0.917464 - 0.679063I$ $b = -1.47224 + 0.10694I$	$-8.51159 - 1.83203I$	0
$u = 0.680437 - 0.465530I$ $a = -0.917464 + 0.679063I$ $b = -1.47224 - 0.10694I$	$-8.51159 + 1.83203I$	0
$u = 0.894405 + 0.764372I$ $a = -0.61624 + 1.42654I$ $b = -1.40800 - 0.29107I$	$-5.74546 - 11.03100I$	0
$u = 0.894405 - 0.764372I$ $a = -0.61624 - 1.42654I$ $b = -1.40800 + 0.29107I$	$-5.74546 + 11.03100I$	0
$u = 0.289262 + 1.239150I$ $a = -0.045610 + 0.413852I$ $b = 0.023350 - 0.410951I$	$1.97481 - 2.69073I$	0
$u = 0.289262 - 1.239150I$ $a = -0.045610 - 0.413852I$ $b = 0.023350 + 0.410951I$	$1.97481 + 2.69073I$	0
$u = 0.590617 + 0.310506I$ $a = 0.96087 - 1.72410I$ $b = 0.255679 + 0.386530I$	$-2.98638 - 0.61275I$	0
$u = 0.590617 - 0.310506I$ $a = 0.96087 + 1.72410I$ $b = 0.255679 - 0.386530I$	$-2.98638 + 0.61275I$	0
$u = 0.454841 + 1.317990I$ $a = -0.1307020 + 0.0215197I$ $b = -1.299560 + 0.177427I$	$-2.13245 - 0.48191I$	0
$u = 0.454841 - 1.317990I$ $a = -0.1307020 - 0.0215197I$ $b = -1.299560 - 0.177427I$	$-2.13245 + 0.48191I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.181005+0.568134I$ $a=\ \ 0.897771+0.786811I$ $b=\ \ 0.002312-0.687422I$	$2.60603-1.37683I$	0
$u=-0.181005-0.568134I$ $a=\ \ 0.897771-0.786811I$ $b=\ \ 0.002312+0.687422I$	$2.60603+1.37683I$	0
$u=-0.134787+0.567278I$ $a=\ \ 0.180641-1.107910I$ $b=-1.039780-0.137065I$	$-0.586277-0.026228I$	0
$u=-0.134787-0.567278I$ $a=\ \ 0.180641+1.107910I$ $b=-1.039780+0.137065I$	$-0.586277+0.026228I$	0
$u=\ \ 0.06859+1.42466I$ $a=\ \ 0.0103422+0.0743670I$ $b=\ \ 1.53685+0.05092I$	$-1.92343-1.06909I$	0
$u=\ \ 0.06859-1.42466I$ $a=\ \ 0.0103422-0.0743670I$ $b=\ \ 1.53685-0.05092I$	$-1.92343+1.06909I$	0
$u=\ \ 0.02099+1.43824I$ $a=-1.27488+1.90471I$ $b=\ \ 1.284890-0.223646I$	$-1.128470-0.060432I$	0
$u=\ \ 0.02099-1.43824I$ $a=-1.27488-1.90471I$ $b=\ \ 1.284890+0.223646I$	$-1.128470+0.060432I$	0
$u=-0.13847+1.45741I$ $a=-0.22590+1.82988I$ $b=\ \ 1.42465-0.34186I$	$2.61988+9.27844I$	0
$u=-0.13847-1.45741I$ $a=-0.22590-1.82988I$ $b=\ \ 1.42465+0.34186I$	$2.61988-9.27844I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.460918 + 0.266517I$ $a = \quad 2.09447 + 1.71266I$ $b = \quad 1.368840 - 0.297213I$	$-3.08811 + 7.18574I$	$-12.00000 - 5.24210I$
$u = -0.460918 - 0.266517I$ $a = \quad 2.09447 - 1.71266I$ $b = \quad 1.368840 + 0.297213I$	$-3.08811 - 7.18574I$	$-12.00000 + 5.24210I$
$u = \quad 0.14377 + 1.46363I$ $a = \quad 0.03873 - 1.88336I$ $b = \quad 0.025762 + 0.609131I$	$2.80366 - 3.04715I$	0
$u = \quad 0.14377 - 1.46363I$ $a = \quad 0.03873 + 1.88336I$ $b = \quad 0.025762 - 0.609131I$	$2.80366 + 3.04715I$	0
$u = -0.361611 + 0.356179I$ $a = -1.186320 - 0.369766I$ $b = -0.184021 + 0.722514I$	$1.82614 + 3.48233I$	$-6.79383 - 4.10527I$
$u = -0.361611 - 0.356179I$ $a = -1.186320 + 0.369766I$ $b = -0.184021 - 0.722514I$	$1.82614 - 3.48233I$	$-6.79383 + 4.10527I$
$u = -0.09473 + 1.49234I$ $a = -0.37347 - 1.41277I$ $b = -0.273288 + 0.830850I$	$8.02170 + 5.03620I$	0
$u = -0.09473 - 1.49234I$ $a = -0.37347 + 1.41277I$ $b = -0.273288 - 0.830850I$	$8.02170 - 5.03620I$	0
$u = -0.07942 + 1.49484I$ $a = \quad 0.49054 - 1.68999I$ $b = -1.352670 + 0.354404I$	$4.96185 + 3.39118I$	0
$u = -0.07942 - 1.49484I$ $a = \quad 0.49054 + 1.68999I$ $b = -1.352670 - 0.354404I$	$4.96185 - 3.39118I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.332942 + 0.368563I$ $a = -1.44289 - 2.26230I$ $b = -1.266150 + 0.253252I$	$-1.29040 + 2.02256I$	$-9.24202 - 0.57616I$
$u = -0.332942 - 0.368563I$ $a = -1.44289 + 2.26230I$ $b = -1.266150 - 0.253252I$	$-1.29040 - 2.02256I$	$-9.24202 + 0.57616I$
$u = -0.02150 + 1.51043I$ $a = 0.641454 + 0.593646I$ $b = -0.863283 - 0.509080I$	$6.14398 + 0.32762I$	0
$u = -0.02150 - 1.51043I$ $a = 0.641454 - 0.593646I$ $b = -0.863283 + 0.509080I$	$6.14398 - 0.32762I$	0
$u = 0.21180 + 1.49644I$ $a = -0.0472308 - 0.0518403I$ $b = -1.54021 + 0.06751I$	$-2.11984 - 5.02621I$	0
$u = 0.21180 - 1.49644I$ $a = -0.0472308 + 0.0518403I$ $b = -1.54021 - 0.06751I$	$-2.11984 + 5.02621I$	0
$u = -0.01749 + 1.53790I$ $a = 0.23906 + 1.46861I$ $b = 0.151849 - 0.830520I$	$9.69171 - 0.86841I$	0
$u = -0.01749 - 1.53790I$ $a = 0.23906 - 1.46861I$ $b = 0.151849 + 0.830520I$	$9.69171 + 0.86841I$	0
$u = 0.22890 + 1.53233I$ $a = 1.09093 + 1.88029I$ $b = -1.308650 - 0.236482I$	$-1.40415 - 6.10807I$	0
$u = 0.22890 - 1.53233I$ $a = 1.09093 - 1.88029I$ $b = -1.308650 + 0.236482I$	$-1.40415 + 6.10807I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.06363 + 1.57023I$ $a = -0.768391 - 0.799066I$ $b = 1.049850 + 0.428553I$	$6.92564 - 5.37799I$	0
$u = 0.06363 - 1.57023I$ $a = -0.768391 + 0.799066I$ $b = 1.049850 - 0.428553I$	$6.92564 + 5.37799I$	0
$u = 0.11638 + 1.58430I$ $a = 0.708844 - 0.840566I$ $b = -1.010650 + 0.434495I$	$6.86270 - 1.01696I$	0
$u = 0.11638 - 1.58430I$ $a = 0.708844 + 0.840566I$ $b = -1.010650 - 0.434495I$	$6.86270 + 1.01696I$	0
$u = 0.081050 + 0.398783I$ $a = 0.017573 - 1.190490I$ $b = -0.626252 + 0.027883I$	$-0.542904 + 0.116178I$	$-11.65605 - 0.06589I$
$u = 0.081050 - 0.398783I$ $a = 0.017573 + 1.190490I$ $b = -0.626252 - 0.027883I$	$-0.542904 - 0.116178I$	$-11.65605 + 0.06589I$
$u = 0.21377 + 1.59894I$ $a = -0.548072 + 0.656108I$ $b = 0.831472 - 0.529226I$	$5.84955 - 6.67507I$	0
$u = 0.21377 - 1.59894I$ $a = -0.548072 - 0.656108I$ $b = 0.831472 + 0.529226I$	$5.84955 + 6.67507I$	0
$u = 0.19363 + 1.61491I$ $a = -0.18710 + 1.43462I$ $b = -0.179480 - 0.826217I$	$9.43088 - 5.53156I$	0
$u = 0.19363 - 1.61491I$ $a = -0.18710 - 1.43462I$ $b = -0.179480 + 0.826217I$	$9.43088 + 5.53156I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.25785 + 1.62225I$ $a = -0.45208 - 1.57984I$ $b = 1.37064 + 0.34866I$	$4.54148 - 9.76055I$	0
$u = 0.25785 - 1.62225I$ $a = -0.45208 + 1.57984I$ $b = 1.37064 - 0.34866I$	$4.54148 + 9.76055I$	0
$u = 0.26912 + 1.62870I$ $a = 0.304854 - 1.355430I$ $b = 0.294539 + 0.827165I$	$7.56933 - 11.41380I$	0
$u = 0.26912 - 1.62870I$ $a = 0.304854 + 1.355430I$ $b = 0.294539 - 0.827165I$	$7.56933 + 11.41380I$	0
$u = 0.31371 + 1.62905I$ $a = 0.19453 + 1.67286I$ $b = -1.43525 - 0.33630I$	$2.0546 - 15.6275I$	0
$u = 0.31371 - 1.62905I$ $a = 0.19453 - 1.67286I$ $b = -1.43525 + 0.33630I$	$2.0546 + 15.6275I$	0
$u = 0.261373$ $a = -2.44078$ $b = 1.45837$	-6.81385	-10.4690
$u = 0.198868$ $a = 1.43681$ $b = -0.391239$	-0.653042	-14.9880
$u = -0.0243675 + 0.1369280I$ $a = -1.13807 + 11.33450I$ $b = 1.354560 - 0.050472I$	$-6.43299 + 0.08655I$	$-14.2300 + 0.9460I$
$u = -0.0243675 - 0.1369280I$ $a = -1.13807 - 11.33450I$ $b = 1.354560 + 0.050472I$	$-6.43299 - 0.08655I$	$-14.2300 - 0.9460I$

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

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -4u^2 + 4u - 24$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.215080 + 1.307140I$ $a = 0.122561 - 0.744862I$ $b = 1.41421$	$-3.55561 - 2.82812I$	$-16.4902 + 2.9794I$
$u = 0.215080 + 1.307140I$ $a = 0.122561 - 0.744862I$ $b = -1.41421$	$-3.55561 - 2.82812I$	$-16.4902 + 2.9794I$
$u = 0.215080 - 1.307140I$ $a = 0.122561 + 0.744862I$ $b = 1.41421$	$-3.55561 + 2.82812I$	$-16.4902 - 2.9794I$
$u = 0.215080 - 1.307140I$ $a = 0.122561 + 0.744862I$ $b = -1.41421$	$-3.55561 + 2.82812I$	$-16.4902 - 2.9794I$
$u = 0.569840$ $a = 1.75488$ $b = 1.41421$	-7.69319	-23.0200
$u = 0.569840$ $a = 1.75488$ $b = -1.41421$	-7.69319	-23.0200

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

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 2u^2 + 2u - 14$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.215080 + 1.307140I$ $a = -0.122561 + 0.744862I$ $b = 0$	$1.37919 - 2.82812I$	$-16.8946 + 3.7388I$
$u = 0.215080 - 1.307140I$ $a = -0.122561 - 0.744862I$ $b = 0$	$1.37919 + 2.82812I$	$-16.8946 - 3.7388I$
$u = 0.569840$ $a = -1.75488$ $b = 0$	-2.75839	-12.2110

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u-1)^9)(u^{80}+38u^{79}+\cdots+15621u+529)$
c_2	$((u-1)^3)(u+1)^6(u^{80}+4u^{79}+\cdots-163u-23)$
c_3, c_4, c_8	$u^3(u^2-2)^3(u^{80}+u^{79}+\cdots-8u-8)$
c_5	$((u-1)^6)(u+1)^3(u^{80}+4u^{79}+\cdots-163u-23)$
c_6	$((u^3-u^2+1)^2)(u^3+u^2-1)(u^{80}-2u^{79}+\cdots-4u-1)$
c_7	$u^3(u^2-2)^3(u^{80}-3u^{79}+\cdots+5400u+1000)$
c_9, c_{10}	$((u^3-u^2+2u-1)^3)(u^{80}+20u^{79}+\cdots+18u+1)$
c_{11}	$(u^3-u^2+1)(u^3+u^2-1)^2(u^{80}-2u^{79}+\cdots-4u-1)$
c_{12}	$((u^3+u^2+2u+1)^3)(u^{80}+20u^{79}+\cdots+18u+1)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y-1)^9)(y^{80}+18y^{79}+\cdots-2.07586\times 10^7 y+279841)$
c_2, c_5	$((y-1)^9)(y^{80}-38y^{79}+\cdots-15621y+529)$
c_3, c_4, c_8	$y^3(y-2)^6(y^{80}-73y^{79}+\cdots+576y+64)$
c_6, c_{11}	$((y^3-y^2+2y-1)^3)(y^{80}-20y^{79}+\cdots-18y+1)$
c_7	$y^3(y-2)^6(y^{80}+11y^{79}+\cdots+9560000y+1000000)$
c_9, c_{10}, c_{12}	$((y^3+3y^2+2y-1)^3)(y^{80}+84y^{79}+\cdots+86y+1)$