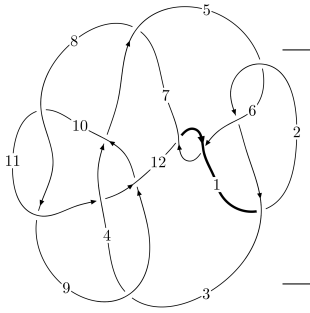
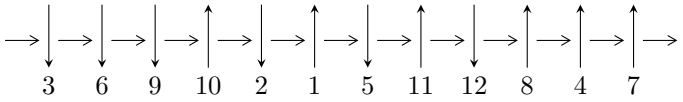
$12a_{0377}$ $(K12a_{0377})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

$$\underset{c_{10}}{8,10} \to \underset{c_8}{11} \to \underset{c_4}{5,9} \to \underset{c_{11}}{4} \to \underset{c_3}{12} \to \underset{c_7}{3} \to \underset{c_{12}}{7} \to \underset{c_6}{1} \to \underset{c_2}{6} \to 2 \longrightarrow\!\!\!\!\rightarrow c_1, c_5, c_9$$

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

$I_1^u = \langle 3.60458 \times 10^{351} u^{112} - 1.49802 \times 10^{352} u^{111} + \cdots + 1.58423 \times 10^{352} b + 8.96032 \times 10^{351},$
$3.98283 \times 10^{351} u^{112} - 1.51474 \times 10^{352} u^{111} + \cdots + 1.58423 \times 10^{352} a - 6.48283 \times 10^{352},\ u^{113} + 2u^{112} + \cdots +$
$I_2^u = \langle b + 1,\ a - 1,\ u - 1 \rangle$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 114 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. $\boldsymbol{I_1^u = \langle 3.60 \times 10^{351} u^{112} - 1.50 \times 10^{352} u^{111} + \cdots + 1.58 \times 10^{352} b + 8.96 \times 10^{351},\ 3.98 \times 10^{351} u^{112} - 1.51 \times 10^{352} u^{111} + \cdots + 1.58 \times 10^{352} a - 6.48 \times 10^{352},\ u^{113} + 2u^{112} + \cdots + 5u + 1 \rangle}$

(i) Arc colorings

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

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

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

$$a_5 = \begin{pmatrix} -0.251405u^{112} + 0.956139u^{111} + \cdots - 51.3075u + 4.09211 \\ -0.227529u^{112} + 0.945582u^{111} + \cdots - 6.03599u - 0.565596 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -0.0238759u^{112} + 0.0105577u^{111} + \cdots - 45.2715u + 4.65770 \\ -0.227529u^{112} + 0.945582u^{111} + \cdots - 6.03599u - 0.565596 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 3.74173u^{112} + 1.87309u^{111} + \cdots + 31.7286u + 1.20630 \\ -1.57162u^{112} - 1.04502u^{111} + \cdots - 6.80780u - 1.86865 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -0.601635u^{112} + 0.284080u^{111} + \cdots - 50.9813u + 3.32938 \\ 0.267924u^{112} + 1.62204u^{111} + \cdots - 5.17838u - 0.464880 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0.925335u^{112} + 0.0971187u^{111} + \cdots + 20.9526u - 4.66114 \\ -1.77138u^{112} - 1.42443u^{111} + \cdots - 3.14980u - 1.70177 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.155973u^{112} - 1.13087u^{111} + \cdots + 31.7267u - 2.05511 \\ 0.479124u^{112} + 0.772006u^{111} + \cdots - 0.580322u - 0.354009 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -1.60565u^{112} - 1.74713u^{111} + \cdots + 15.2116u - 7.47774 \\ -1.73965u^{112} - 1.54559u^{111} + \cdots - 1.04522u - 1.46991 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.273879u^{112} - 0.0294619u^{111} + \cdots + 5.15495u + 3.64220 \\ 1.52493u^{112} + 1.56504u^{111} + \cdots + 1.07514u + 0.790347 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -9.37846u^{112} - 6.07388u^{111} + \cdots + 8.52876u - 10.5678$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{113} + 60u^{112} + \cdots + 5u + 1$
c_2, c_5	$u^{113} + 2u^{112} + \cdots - u + 1$
c_3	$u^{113} + 66u^{111} + \cdots - 5294u + 11036$
c_4	$u^{113} + 2u^{112} + \cdots + 779133u + 135659$
c_6, c_{12}	$u^{113} + 3u^{112} + \cdots + 1248u + 288$
c_7	$u^{113} - 10u^{112} + \cdots + 170569u + 7433$
c_8, c_{10}	$u^{113} + 2u^{112} + \cdots + 5u + 1$
c_9	$u^{113} - 19u^{112} + \cdots + 6u - 2$
c_{11}	$u^{113} - 2u^{112} + \cdots - u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{113} - 12y^{112} + \cdots + 73y - 1$
c_2, c_5	$y^{113} - 60y^{112} + \cdots + 5y - 1$
c_3	$y^{113} + 132y^{112} + \cdots - 7542338484y - 121793296$
c_4	$y^{113} + 76y^{112} + \cdots + 814063865689y - 18403364281$
c_6, c_{12}	$y^{113} + 81y^{112} + \cdots + 2154816y - 82944$
c_7	$y^{113} + 48y^{112} + \cdots - 12384794263y - 55249489$
c_8, c_{10}	$y^{113} - 80y^{112} + \cdots + 201y - 1$
c_9	$y^{113} + 9y^{112} + \cdots - 64y - 4$
c_{11}	$y^{113} - 20y^{112} + \cdots + 5y - 1$

(vi) Complex Volumes and Cusp Shapes

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$0.628994+0.805074I$		
$a=$	$0.469841-0.263890I$	$-2.56577+5.23147I$	0
$b=$	$0.283186+0.181705I$		
$u=$	$0.628994-0.805074I$		
$a=$	$0.469841+0.263890I$	$-2.56577-5.23147I$	0
$b=$	$0.283186-0.181705I$		
$u=$	$0.325320+0.898186I$		
$a=$	$-0.556699-0.146988I$	$0.61481+1.65437I$	0
$b=$	$-0.544491-0.403405I$		
$u=$	$0.325320-0.898186I$		
$a=$	$-0.556699+0.146988I$	$0.61481-1.65437I$	0
$b=$	$-0.544491+0.403405I$		
$u=$	$0.943592+0.030818I$		
$a=$	$-0.522216+0.154103I$	$0.340243+0.243306I$	0
$b=$	$0.68200+2.38604I$		
$u=$	$0.943592-0.030818I$		
$a=$	$-0.522216-0.154103I$	$0.340243-0.243306I$	0
$b=$	$0.68200-2.38604I$		
$u=$	$1.057710+0.097573I$		
$a=$	$0.579526-0.832827I$	$-2.42343-1.00273I$	0
$b=$	$0.11853-3.24830I$		
$u=$	$1.057710-0.097573I$		
$a=$	$0.579526+0.832827I$	$-2.42343+1.00273I$	0
$b=$	$0.11853+3.24830I$		
$u=$	$0.465316+0.964816I$		
$a=$	$0.665764-0.055613I$	$-2.10528-2.72389I$	0
$b=$	$0.544662+0.234872I$		
$u=$	$0.465316-0.964816I$		
$a=$	$0.665764+0.055613I$	$-2.10528+2.72389I$	0
$b=$	$0.544662-0.234872I$		

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.373895+0.843598I$ $a=-0.46944-1.35921I$ $b=-0.469024-1.043280I$	$-7.94586+5.17796I$	0
$u=-0.373895-0.843598I$ $a=-0.46944+1.35921I$ $b=-0.469024+1.043280I$	$-7.94586-5.17796I$	0
$u=-0.043363+0.920452I$ $a=\ \ 0.565594+0.784941I$ $b=\ \ 0.624966+0.748908I$	$-2.70032+3.74058I$	0
$u=-0.043363-0.920452I$ $a=\ \ 0.565594-0.784941I$ $b=\ \ 0.624966-0.748908I$	$-2.70032-3.74058I$	0
$u=\ \ 1.079330+0.075300I$ $a=-0.440245+0.926018I$ $b=-0.09491+3.38127I$	$1.38276+2.70786I$	0
$u=\ \ 1.079330-0.075300I$ $a=-0.440245-0.926018I$ $b=-0.09491-3.38127I$	$1.38276-2.70786I$	0
$u=-1.084540+0.070158I$ $a=\ \ 1.48569-0.82488I$ $b=-0.540270-0.042016I$	$0.203429-0.594606I$	0
$u=-1.084540-0.070158I$ $a=\ \ 1.48569+0.82488I$ $b=-0.540270+0.042016I$	$0.203429+0.594606I$	0
$u=\ \ 1.091440+0.016134I$ $a=-0.095452+0.960345I$ $b=-0.01184+3.51911I$	$3.80508+2.14831I$	0
$u=\ \ 1.091440-0.016134I$ $a=-0.095452-0.960345I$ $b=-0.01184-3.51911I$	$3.80508-2.14831I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.018950+0.404204I$ $a=-1.47062-0.80723I$ $b=\ \ 0.466320-0.706084I$	$-5.96540-0.84182I$	0
$u=-1.018950-0.404204I$ $a=-1.47062+0.80723I$ $b=\ \ 0.466320+0.706084I$	$-5.96540+0.84182I$	0
$u=\ \ 1.093210+0.088942I$ $a=\ \ 0.502305-1.010920I$ $b=\ \ 0.16728-3.39536I$	$-1.54854+7.37352I$	0
$u=\ \ 1.093210-0.088942I$ $a=\ \ 0.502305+1.010920I$ $b=\ \ 0.16728+3.39536I$	$-1.54854-7.37352I$	0
$u=\ \ 0.197625+1.091860I$ $a=-0.866578-0.364637I$ $b=-0.785843-0.477687I$	$2.22897+2.53204I$	0
$u=\ \ 0.197625-1.091860I$ $a=-0.866578+0.364637I$ $b=-0.785843+0.477687I$	$2.22897-2.53204I$	0
$u=-1.097280+0.189897I$ $a=-0.39958-1.74478I$ $b=\ \ 0.544175-0.702514I$	$-2.04635-1.56955I$	0
$u=-1.097280-0.189897I$ $a=-0.39958+1.74478I$ $b=\ \ 0.544175+0.702514I$	$-2.04635+1.56955I$	0
$u=-0.435334+0.770110I$ $a=-0.37253-1.46521I$ $b=-0.374521-1.062230I$	$-7.77300-3.54516I$	0
$u=-0.435334-0.770110I$ $a=-0.37253+1.46521I$ $b=-0.374521+1.062230I$	$-7.77300+3.54516I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.368978+0.774867I$ $a=\ \ 0.362705+1.366110I$ $b=\ \ 0.410428+1.008490I$	$-4.39067+0.89920I$	0
$u=-0.368978-0.774867I$ $a=\ \ 0.362705-1.366110I$ $b=\ \ 0.410428-1.008490I$	$-4.39067-0.89920I$	0
$u=-1.068650+0.407745I$ $a=\ \ 1.29200+0.78651I$ $b=-0.577199+0.719807I$	$-2.22585-5.28549I$	0
$u=-1.068650-0.407745I$ $a=\ \ 1.29200-0.78651I$ $b=-0.577199-0.719807I$	$-2.22585+5.28549I$	0
$u=\ \ 0.142388+1.145910I$ $a=\ \ 0.960435+0.457518I$ $b=\ \ 0.860997+0.532401I$	$1.88293+6.96291I$	0
$u=\ \ 0.142388-1.145910I$ $a=\ \ 0.960435-0.457518I$ $b=\ \ 0.860997-0.532401I$	$1.88293-6.96291I$	0
$u=-1.073490+0.450936I$ $a=-1.25020-0.93708I$ $b=\ \ 0.582668-0.819628I$	$-5.75547-9.90220I$	0
$u=-1.073490-0.450936I$ $a=-1.25020+0.93708I$ $b=\ \ 0.582668+0.819628I$	$-5.75547+9.90220I$	0
$u=\ \ 1.069790+0.462990I$ $a=-0.161941+0.433741I$ $b=\ \ 0.518943-0.112408I$	$1.40063+2.37957I$	0
$u=\ \ 1.069790-0.462990I$ $a=-0.161941-0.433741I$ $b=\ \ 0.518943+0.112408I$	$1.40063-2.37957I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.150660+0.187578I$ $a=\ \ 0.35704+1.62839I$ $b=-0.656035+0.699053I$	$2.32331-5.37707I$	0
$u=-1.150660-0.187578I$ $a=\ \ 0.35704-1.62839I$ $b=-0.656035-0.699053I$	$2.32331+5.37707I$	0
$u=-1.160570+0.216923I$ $a=-0.29068-1.64577I$ $b=\ \ 0.673011-0.761982I$	$-0.63504-10.38720I$	0
$u=-1.160570-0.216923I$ $a=-0.29068+1.64577I$ $b=\ \ 0.673011+0.761982I$	$-0.63504+10.38720I$	0
$u=-0.007650+1.182640I$ $a=-1.028660-0.719034I$ $b=-0.919799-0.715399I$	$-5.18160+3.86014I$	0
$u=-0.007650-1.182640I$ $a=-1.028660+0.719034I$ $b=-0.919799+0.715399I$	$-5.18160-3.86014I$	0
$u=\ \ 0.036372+1.198960I$ $a=\ \ 1.056530+0.640937I$ $b=\ \ 0.939210+0.658803I$	$-1.12840+7.66560I$	0
$u=\ \ 0.036372-1.198960I$ $a=\ \ 1.056530-0.640937I$ $b=\ \ 0.939210-0.658803I$	$-1.12840-7.66560I$	0
$u=-1.200230+0.083318I$ $a=\ \ 0.499588+1.306680I$ $b=-0.783855+0.468733I$	$5.81921-4.07245I$	0
$u=-1.200230-0.083318I$ $a=\ \ 0.499588-1.306680I$ $b=-0.783855-0.468733I$	$5.81921+4.07245I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.208560+0.027333I$ $a=-0.599859-1.105330I$ $b=\ \ 0.817363-0.334604I$	$6.34378+0.77670I$	0
$u=-1.208560-0.027333I$ $a=-0.599859+1.105330I$ $b=\ \ 0.817363+0.334604I$	$6.34378-0.77670I$	0
$u=-1.213050+0.095341I$ $a=-0.767196+0.574275I$ $b=\ \ 0.866219+0.032953I$	$4.98123-2.74814I$	0
$u=-1.213050-0.095341I$ $a=-0.767196-0.574275I$ $b=\ \ 0.866219-0.032953I$	$4.98123+2.74814I$	0
$u=\ \ 0.028775+1.228150I$ $a=-1.108380-0.653518I$ $b=-0.977482-0.667107I$	$-4.11564+12.48680I$	0
$u=\ \ 0.028775-1.228150I$ $a=-1.108380+0.653518I$ $b=-0.977482+0.667107I$	$-4.11564-12.48680I$	0
$u=\ \ 1.242600+0.045176I$ $a=-0.0276375-0.0507761I$ $b=-1.180830+0.038251I$	$2.42702+0.01183I$	0
$u=\ \ 1.242600-0.045176I$ $a=-0.0276375+0.0507761I$ $b=-1.180830-0.038251I$	$2.42702-0.01183I$	0
$u=-1.250790+0.154376I$ $a=\ \ 0.634697-0.293779I$ $b=-0.976609+0.100492I$	$2.91293-7.47396I$	0
$u=-1.250790-0.154376I$ $a=\ \ 0.634697+0.293779I$ $b=-0.976609-0.100492I$	$2.91293+7.47396I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.701259 + 0.144851I$ $a = 1.144400 + 0.459612I$ $b = 0.49489 - 1.53937I$	$-3.24230 + 2.05640I$	0
$u = 0.701259 - 0.144851I$ $a = 1.144400 - 0.459612I$ $b = 0.49489 + 1.53937I$	$-3.24230 - 2.05640I$	0
$u = 0.440662 + 0.462304I$ $a = -0.046408 + 0.267922I$ $b = -0.213264 - 0.552181I$	$0.42820 + 1.49790I$	$2.53334 - 4.59564I$
$u = 0.440662 - 0.462304I$ $a = -0.046408 - 0.267922I$ $b = -0.213264 + 0.552181I$	$0.42820 - 1.49790I$	$2.53334 + 4.59564I$
$u = 0.588990 + 0.202664I$ $a = 1.36583 + 0.83573I$ $b = 0.74578 - 1.28388I$	$-2.64087 - 6.22131I$	$-0.76202 + 8.45882I$
$u = 0.588990 - 0.202664I$ $a = 1.36583 - 0.83573I$ $b = 0.74578 + 1.28388I$	$-2.64087 + 6.22131I$	$-0.76202 - 8.45882I$
$u = -1.308970 + 0.458145I$ $a = 0.397768 + 0.885864I$ $b = -1.16408 + 0.85769I$	$1.29630 - 8.68434I$	0
$u = -1.308970 - 0.458145I$ $a = 0.397768 - 0.885864I$ $b = -1.16408 - 0.85769I$	$1.29630 + 8.68434I$	0
$u = 0.575385 + 0.107972I$ $a = -1.026690 - 0.880371I$ $b = -0.532572 + 1.184350I$	$0.30421 - 1.73030I$	$3.07892 + 4.83803I$
$u = 0.575385 - 0.107972I$ $a = -1.026690 + 0.880371I$ $b = -0.532572 - 1.184350I$	$0.30421 + 1.73030I$	$3.07892 - 4.83803I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.36635+0.37132I$ $a=\ \ 0.197704+0.560028I$ $b=-1.31064+0.62747I$	$3.35454-1.59435I$	0
$u=-1.36635-0.37132I$ $a=\ \ 0.197704-0.560028I$ $b=-1.31064-0.62747I$	$3.35454+1.59435I$	0
$u=-1.36494+0.41142I$ $a=-0.199331-0.707642I$ $b=\ \ 1.31031-0.73341I$	$5.63063-6.27986I$	0
$u=-1.36494-0.41142I$ $a=-0.199331+0.707642I$ $b=\ \ 1.31031+0.73341I$	$5.63063+6.27986I$	0
$u=-1.39656+0.46863I$ $a=-0.078320-0.912668I$ $b=\ \ 1.39758-0.88545I$	$7.18518-7.94484I$	0
$u=-1.39656-0.46863I$ $a=-0.078320+0.912668I$ $b=\ \ 1.39758+0.88545I$	$7.18518+7.94484I$	0
$u=-1.37243+0.55193I$ $a=-0.156077-1.215360I$ $b=\ \ 1.32944-1.11206I$	$-0.87461-9.89086I$	0
$u=-1.37243-0.55193I$ $a=-0.156077+1.215360I$ $b=\ \ 1.32944+1.11206I$	$-0.87461+9.89086I$	0
$u=-1.40258+0.49611I$ $a=\ \ 0.053738+1.011370I$ $b=-1.41429+0.96029I$	$6.7272-12.6581I$	0
$u=-1.40258-0.49611I$ $a=\ \ 0.053738-1.011370I$ $b=-1.41429-0.96029I$	$6.7272+12.6581I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.39217+0.54597I$ $a=\ \ 0.085947+1.191860I$ $b=-1.38418+1.09703I$	$3.37354-13.72260I$	0
$u=-1.39217-0.54597I$ $a=\ \ 0.085947-1.191860I$ $b=-1.38418-1.09703I$	$3.37354+13.72260I$	0
$u=-1.39844+0.55749I$ $a=-0.062272-1.232500I$ $b=\ \ 1.40081-1.12928I$	$0.3881-18.6695I$	0
$u=-1.39844-0.55749I$ $a=-0.062272+1.232500I$ $b=\ \ 1.40081+1.12928I$	$0.3881+18.6695I$	0
$u=\ \ 1.36071+0.70792I$ $a=\ \ 0.026718-0.771692I$ $b=-0.564595-0.480204I$	$-0.47080+1.40907I$	0
$u=\ \ 1.36071-0.70792I$ $a=\ \ 0.026718+0.771692I$ $b=-0.564595+0.480204I$	$-0.47080-1.40907I$	0
$u=-0.251377+0.353254I$ $a=-0.43444+1.56479I$ $b=\ \ 0.188310+0.768978I$	$-1.95709-0.92883I$	$-7.24124+2.89402I$
$u=-0.251377-0.353254I$ $a=-0.43444-1.56479I$ $b=\ \ 0.188310-0.768978I$	$-1.95709+0.92883I$	$-7.24124-2.89402I$
$u=\ \ 1.54035+0.32085I$ $a=\ \ 0.344109+0.409500I$ $b=\ \ 1.097320+0.240828I$	$0.21148+2.38742I$	0
$u=\ \ 1.54035-0.32085I$ $a=\ \ 0.344109-0.409500I$ $b=\ \ 1.097320-0.240828I$	$0.21148-2.38742I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.42146 + 0.69310I$ $a = 0.046277 + 0.794068I$ $b = 0.649309 + 0.526292I$	$3.47790 + 5.04492I$	0
$u = 1.42146 - 0.69310I$ $a = 0.046277 - 0.794068I$ $b = 0.649309 - 0.526292I$	$3.47790 - 5.04492I$	0
$u = 1.43181 + 0.72769I$ $a = -0.035518 - 0.838342I$ $b = -0.625849 - 0.577051I$	$0.58758 + 9.79544I$	0
$u = 1.43181 - 0.72769I$ $a = -0.035518 + 0.838342I$ $b = -0.625849 + 0.577051I$	$0.58758 - 9.79544I$	0
$u = 1.49012 + 0.60003I$ $a = 0.176424 + 0.728302I$ $b = 0.818810 + 0.487302I$	$6.08390 + 4.22100I$	0
$u = 1.49012 - 0.60003I$ $a = 0.176424 - 0.728302I$ $b = 0.818810 - 0.487302I$	$6.08390 - 4.22100I$	0
$u = 1.55381 + 0.41726I$ $a = -0.332191 - 0.534509I$ $b = -1.042680 - 0.343807I$	$3.96178 - 1.10057I$	0
$u = 1.55381 - 0.41726I$ $a = -0.332191 + 0.534509I$ $b = -1.042680 + 0.343807I$	$3.96178 + 1.10057I$	0
$u = 1.51641 + 0.54311I$ $a = -0.235544 - 0.673866I$ $b = -0.899912 - 0.447513I$	$6.18256 - 0.22975I$	0
$u = 1.51641 - 0.54311I$ $a = -0.235544 + 0.673866I$ $b = -0.899912 + 0.447513I$	$6.18256 + 0.22975I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.008885 + 0.372670I$ $a = -3.14424 - 2.38230I$ $b = -0.970450 + 0.095132I$	$-3.90860 + 8.00126I$	$-3.67874 - 4.22294I$
$u = 0.008885 - 0.372670I$ $a = -3.14424 + 2.38230I$ $b = -0.970450 - 0.095132I$	$-3.90860 - 8.00126I$	$-3.67874 + 4.22294I$
$u = 1.60137 + 0.40534I$ $a = 0.397015 + 0.535555I$ $b = 1.100940 + 0.365544I$	$1.15325 - 5.74846I$	0
$u = 1.60137 - 0.40534I$ $a = 0.397015 - 0.535555I$ $b = 1.100940 - 0.365544I$	$1.15325 + 5.74846I$	0
$u = 0.274845 + 0.191918I$ $a = -1.44889 - 2.31072I$ $b = -0.777246 + 0.630363I$	$2.19844 - 1.34984I$	$4.07300 + 4.60487I$
$u = 0.274845 - 0.191918I$ $a = -1.44889 + 2.31072I$ $b = -0.777246 - 0.630363I$	$2.19844 + 1.34984I$	$4.07300 - 4.60487I$
$u = 0.014064 + 0.326696I$ $a = 3.16731 + 2.57181I$ $b = 0.902246 - 0.132703I$	$-0.87468 + 3.26263I$	$-0.502379 - 1.300822I$
$u = 0.014064 - 0.326696I$ $a = 3.16731 - 2.57181I$ $b = 0.902246 + 0.132703I$	$-0.87468 - 3.26263I$	$-0.502379 + 1.300822I$
$u = -0.055397 + 0.315273I$ $a = -3.48784 - 2.46576I$ $b = -0.843379 + 0.037852I$	$-4.79112 - 0.61003I$	$-5.51607 + 2.01393I$
$u = -0.055397 - 0.315273I$ $a = -3.48784 + 2.46576I$ $b = -0.843379 - 0.037852I$	$-4.79112 + 0.61003I$	$-5.51607 - 2.01393I$

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$0.175939+0.254021I$		
$a=$	$2.14702+2.68542I$	$1.94875+2.87687I$	$2.57908-3.31245I$
$b=$	$0.859196-0.437395I$		
$u=$	$0.175939-0.254021I$		
$a=$	$2.14702-2.68542I$	$1.94875-2.87687I$	$2.57908+3.31245I$
$b=$	$0.859196+0.437395I$		
$u=$	-0.0666513		
$a=$	10.2674	-1.46742	-6.65250
$b=$	0.481876		

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

(i) Arc colorings

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

(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_3 c_4, c_{10}, c_{11}	$u-1$
c_5, c_7, c_8	$u+1$
c_6, c_9, 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_{10}, c_{11}	$y-1$
c_6, c_9, c_{12}	y

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 1.00000$		
$a = \quad 1.00000$	0	0
$b = -1.00000$		

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u-1)(u^{113}+60u^{112}+\cdots+5u+1)$
c_2	$(u-1)(u^{113}+2u^{112}+\cdots-u+1)$
c_3	$(u-1)(u^{113}+66u^{111}+\cdots-5294u+11036)$
c_4	$(u-1)(u^{113}+2u^{112}+\cdots+779133u+135659)$
c_5	$(u+1)(u^{113}+2u^{112}+\cdots-u+1)$
c_6, c_{12}	$u(u^{113}+3u^{112}+\cdots+1248u+288)$
c_7	$(u+1)(u^{113}-10u^{112}+\cdots+170569u+7433)$
c_8	$(u+1)(u^{113}+2u^{112}+\cdots+5u+1)$
c_9	$u(u^{113}-19u^{112}+\cdots+6u-2)$
c_{10}	$(u-1)(u^{113}+2u^{112}+\cdots+5u+1)$
c_{11}	$(u-1)(u^{113}-2u^{112}+\cdots-u+1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y-1)(y^{113}-12y^{112}+\cdots+73y-1)$
c_2, c_5	$(y-1)(y^{113}-60y^{112}+\cdots+5y-1)$
c_3	$(y-1)(y^{113}+132y^{112}+\cdots-7.54234\times10^{9}y-1.21793\times10^{8})$
c_4	$(y-1)(y^{113}+76y^{112}+\cdots+8.14064\times10^{11}y-1.84034\times10^{10})$
c_6, c_{12}	$y(y^{113}+81y^{112}+\cdots+2154816y-82944)$
c_7	$(y-1)(y^{113}+48y^{112}+\cdots-1.23848\times10^{10}y-5.52495\times10^{7})$
c_8, c_{10}	$(y-1)(y^{113}-80y^{112}+\cdots+201y-1)$
c_9	$y(y^{113}+9y^{112}+\cdots-64y-4)$
c_{11}	$(y-1)(y^{113}-20y^{112}+\cdots+5y-1)$