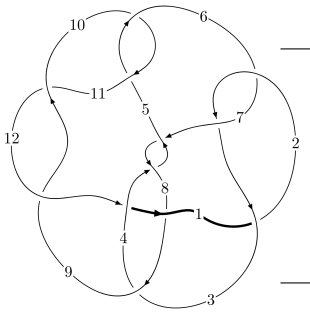
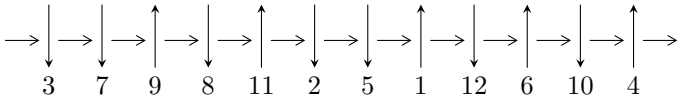
$12a_{0555}$ $(K12a_{0555})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle 1.57592 \times 10^{318} u^{123} - 2.08157 \times 10^{318} u^{122} + \cdots + 2.25880 \times 10^{319} b - 3.26705 \times 10^{319},$$
$$3.30221 \times 10^{318} u^{123} - 4.03875 \times 10^{318} u^{122} + \cdots + 2.25880 \times 10^{319} a - 1.14717 \times 10^{320},\ u^{124} - u^{123} + \cdots - 1$$
$$I_2^u = \langle 7u^{27} - 42u^{25} + \cdots + 16u^3 + b,\ 24u^{27} - 13u^{26} + \cdots + a + 27,\ u^{28} - 7u^{26} + \cdots + u + 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 152 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. $\boldsymbol{I_1^u = \langle 1.58 \times 10^{318} u^{123} - 2.08 \times 10^{318} u^{122} + \cdots + 2.26 \times 10^{319} b - 3.27 \times 10^{319},\ 3.30 \times 10^{318} u^{123} - 4.04 \times 10^{318} u^{122} + \cdots + 2.26 \times 10^{319} a - 1.15 \times 10^{320},\ u^{124} - u^{123} + \cdots - 13u + 1 \rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

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

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

$$a_1 = \begin{pmatrix} u^3 \\ u^5 - u^3 + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.146193u^{123} + 0.178800u^{122} + \cdots - 13.8891u + 5.07865 \\ -0.0697681u^{123} + 0.0921538u^{122} + \cdots - 10.2467u + 1.44636 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.356991u^{123} + 0.445191u^{122} + \cdots - 55.4783u + 6.75271 \\ -0.119813u^{123} + 0.134953u^{122} + \cdots - 19.0220u + 1.00634 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.547390u^{123} + 0.484893u^{122} + \cdots - 80.7903u - 2.39707 \\ -0.0369578u^{123} + 0.0165463u^{122} + \cdots - 1.32633u - 2.40645 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.547878u^{123} - 0.540683u^{122} + \cdots + 90.4297u - 9.53174 \\ 0.286119u^{123} - 0.265471u^{122} + \cdots + 37.8431u - 1.66144 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.0764246u^{123} + 0.0866464u^{122} + \cdots - 3.64233u + 3.63229 \\ -0.0697681u^{123} + 0.0921538u^{122} + \cdots - 10.2467u + 1.44636 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.473969u^{123} + 0.562191u^{122} + \cdots - 75.5693u + 7.83665 \\ -0.174923u^{123} + 0.183416u^{122} + \cdots - 28.4694u + 1.00218 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.547891u^{123} + 0.484216u^{122} + \cdots - 80.7327u - 2.40114 \\ -0.0395895u^{123} + 0.0231613u^{122} + \cdots - 1.15575u - 2.46193 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.236486u^{123} + 0.153343u^{122} + \cdots + 23.5886u - 7.90116$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{124} + 45u^{123} + \cdots - 65u + 1$
c_2, c_6	$u^{124} - u^{123} + \cdots - 13u + 1$
c_3	$u^{124} - 18u^{122} + \cdots + 83060u + 9129$
c_4, c_7	$u^{124} - 2u^{123} + \cdots - 570346u + 135173$
c_5, c_{10}	$u^{124} + u^{123} + \cdots + u + 1$
c_8	$u^{124} + 11u^{123} + \cdots + 19900u + 5329$
c_9, c_{11}	$u^{124} + 37u^{123} + \cdots + 31u + 1$
c_{12}	$u^{124} + 9u^{123} + \cdots + 54702u + 6689$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{124} + 83y^{123} + \cdots + 22757y + 1$
c_2, c_6	$y^{124} - 45y^{123} + \cdots + 65y + 1$
c_3	$y^{124} - 36y^{123} + \cdots - 3698902198y + 83338641$
c_4, c_7	$y^{124} + 108y^{123} + \cdots + 105445018624y + 18271739929$
c_5, c_{10}	$y^{124} + 37y^{123} + \cdots + 31y + 1$
c_8	$y^{124} - 35y^{123} + \cdots - 1554065648y + 28398241$
c_9, c_{11}	$y^{124} + 113y^{123} + \cdots - 61y + 1$
c_{12}	$y^{124} - 39y^{123} + \cdots - 869394118y + 44742721$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.653672 + 0.754028I$ $a = -0.221936 + 0.365917I$ $b = 0.863933 + 1.051610I$	$9.50348 + 3.93899I$	0
$u = 0.653672 - 0.754028I$ $a = -0.221936 - 0.365917I$ $b = 0.863933 - 1.051610I$	$9.50348 - 3.93899I$	0
$u = 0.593554 + 0.784926I$ $a = 0.300113 + 1.131170I$ $b = 0.421338 + 1.101320I$	$3.00860 + 6.79683I$	0
$u = 0.593554 - 0.784926I$ $a = 0.300113 - 1.131170I$ $b = 0.421338 - 1.101320I$	$3.00860 - 6.79683I$	0
$u = 0.698473 + 0.746424I$ $a = -0.636687 - 0.050603I$ $b = 0.847556 - 0.866163I$	$9.60030 - 2.95359I$	0
$u = 0.698473 - 0.746424I$ $a = -0.636687 + 0.050603I$ $b = 0.847556 + 0.866163I$	$9.60030 + 2.95359I$	0
$u = 1.021970 + 0.040581I$ $a = 0.41698 + 1.93112I$ $b = -0.700899 + 0.983946I$	$-0.40305 - 6.21537I$	0
$u = 1.021970 - 0.040581I$ $a = 0.41698 - 1.93112I$ $b = -0.700899 - 0.983946I$	$-0.40305 + 6.21537I$	0
$u = -0.666582 + 0.709797I$ $a = -0.959766 - 0.552903I$ $b = 0.824752 - 0.937359I$	$9.38055 - 3.27018I$	0
$u = -0.666582 - 0.709797I$ $a = -0.959766 + 0.552903I$ $b = 0.824752 + 0.937359I$	$9.38055 + 3.27018I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.674920 + 0.781390I$ $a = -0.324639 - 0.487747I$ $b = 0.830949 + 0.788178I$	$5.51421 - 0.24477I$	0
$u = 0.674920 - 0.781390I$ $a = -0.324639 + 0.487747I$ $b = 0.830949 - 0.788178I$	$5.51421 + 0.24477I$	0
$u = -0.848576 + 0.605017I$ $a = -1.48509 + 2.87938I$ $b = 0.220178 + 0.887084I$	$2.23676 + 4.86931I$	0
$u = -0.848576 - 0.605017I$ $a = -1.48509 - 2.87938I$ $b = 0.220178 - 0.887084I$	$2.23676 - 4.86931I$	0
$u = -0.956092 + 0.041318I$ $a = -0.421817 + 0.553059I$ $b = -0.756039 + 0.700147I$	$0.446725 + 0.678269I$	0
$u = -0.956092 - 0.041318I$ $a = -0.421817 - 0.553059I$ $b = -0.756039 - 0.700147I$	$0.446725 - 0.678269I$	0
$u = -0.719659 + 0.758218I$ $a = -0.708310 + 0.499013I$ $b = 0.787875 - 0.928615I$	$5.06471 - 6.00007I$	0
$u = -0.719659 - 0.758218I$ $a = -0.708310 - 0.499013I$ $b = 0.787875 + 0.928615I$	$5.06471 + 6.00007I$	0
$u = 0.763125 + 0.714898I$ $a = -1.82587 - 0.44160I$ $b = 0.808628 - 0.851275I$	$5.30381 + 0.01095I$	0
$u = 0.763125 - 0.714898I$ $a = -1.82587 + 0.44160I$ $b = 0.808628 + 0.851275I$	$5.30381 - 0.01095I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.043170 + 0.125351I$ $a = -0.02299 + 2.54445I$ $b = 0.115043 + 0.998344I$	$-5.35836 + 0.99192I$	0
$u = 1.043170 - 0.125351I$ $a = -0.02299 - 2.54445I$ $b = 0.115043 - 0.998344I$	$-5.35836 - 0.99192I$	0
$u = 1.055390 + 0.065223I$ $a = -0.77306 - 2.07144I$ $b = -0.793365 - 0.814158I$	$4.50475 + 2.60325I$	0
$u = 1.055390 - 0.065223I$ $a = -0.77306 + 2.07144I$ $b = -0.793365 + 0.814158I$	$4.50475 - 2.60325I$	0
$u = 0.833543 + 0.655869I$ $a = -1.09202 - 1.99986I$ $b = 0.171148 - 1.273080I$	$1.10782 - 1.42271I$	0
$u = 0.833543 - 0.655869I$ $a = -1.09202 + 1.99986I$ $b = 0.171148 + 1.273080I$	$1.10782 + 1.42271I$	0
$u = -0.733187 + 0.769749I$ $a = -0.579198 + 0.681931I$ $b = 0.997080 + 0.784039I$	$10.35130 + 2.83481I$	0
$u = -0.733187 - 0.769749I$ $a = -0.579198 - 0.681931I$ $b = 0.997080 - 0.784039I$	$10.35130 - 2.83481I$	0
$u = -0.887233 + 0.592895I$ $a = 0.55746 + 1.56023I$ $b = -0.368249 + 0.900767I$	$2.12043 - 0.13510I$	0
$u = -0.887233 - 0.592895I$ $a = 0.55746 - 1.56023I$ $b = -0.368249 - 0.900767I$	$2.12043 + 0.13510I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.760149+0.757066I$ $a=-1.56255+0.99397I$ $b=\ \ 0.774107+0.978985I$	$4.92525+6.25486I$	0
$u=-0.760149-0.757066I$ $a=-1.56255-0.99397I$ $b=\ \ 0.774107-0.978985I$	$4.92525-6.25486I$	0
$u=-1.077120+0.018870I$ $a=-0.95759+1.82621I$ $b=-0.760737+0.953348I$	$4.07402-3.25740I$	0
$u=-1.077120-0.018870I$ $a=-0.95759-1.82621I$ $b=-0.760737-0.953348I$	$4.07402+3.25740I$	0
$u=-0.890283+0.241808I$ $a=\ \ 0.366545-0.045722I$ $b=\ \ 0.511763-0.270563I$	$-1.61166+0.75107I$	0
$u=-0.890283-0.241808I$ $a=\ \ 0.366545+0.045722I$ $b=\ \ 0.511763+0.270563I$	$-1.61166-0.75107I$	0
$u=\ \ 0.975577+0.473549I$ $a=-0.535924-0.486426I$ $b=\ \ 0.446242+0.144626I$	$-0.18171-4.53875I$	0
$u=\ \ 0.975577-0.473549I$ $a=-0.535924+0.486426I$ $b=\ \ 0.446242-0.144626I$	$-0.18171+4.53875I$	0
$u=\ \ 1.037460+0.327001I$ $a=-0.79407-2.29881I$ $b=\ \ 0.488824-0.944752I$	$-3.26816-4.56010I$	0
$u=\ \ 1.037460-0.327001I$ $a=-0.79407+2.29881I$ $b=\ \ 0.488824+0.944752I$	$-3.26816+4.56010I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.753662+0.784384I$ $a=-0.044345+0.661694I$ $b=\ \ 0.899046+0.156547I$	$6.18301-2.23465I$	0
$u=-0.753662-0.784384I$ $a=-0.044345-0.661694I$ $b=\ \ 0.899046-0.156547I$	$6.18301+2.23465I$	0
$u=-0.883843+0.168841I$ $a=\ \ 1.48383-1.80805I$ $b=-0.423273-1.028020I$	$-1.84989+0.37525I$	0
$u=-0.883843-0.168841I$ $a=\ \ 1.48383+1.80805I$ $b=-0.423273+1.028020I$	$-1.84989-0.37525I$	0
$u=\ \ 0.893238+0.656245I$ $a=-0.58558-1.59697I$ $b=-0.264939-1.275620I$	$0.91832-3.67720I$	0
$u=\ \ 0.893238-0.656245I$ $a=-0.58558+1.59697I$ $b=-0.264939+1.275620I$	$0.91832+3.67720I$	0
$u=\ \ 0.802159+0.352006I$ $a=\ \ 3.10936+1.84472I$ $b=-0.037171+0.588188I$	$0.74296+1.30500I$	0
$u=\ \ 0.802159-0.352006I$ $a=\ \ 3.10936-1.84472I$ $b=-0.037171-0.588188I$	$0.74296-1.30500I$	0
$u=\ \ 0.846228+0.141439I$ $a=-0.035362-0.686305I$ $b=-0.584268+0.358023I$	$0.23076-3.63401I$	0
$u=\ \ 0.846228-0.141439I$ $a=-0.035362+0.686305I$ $b=-0.584268-0.358023I$	$0.23076+3.63401I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.050360+0.471664I$ $a=\ \ 0.64484-1.30668I$ $b=\ \ 0.331456-0.934867I$	$-2.51161+2.06880I$	0
$u=-1.050360-0.471664I$ $a=\ \ 0.64484+1.30668I$ $b=\ \ 0.331456+0.934867I$	$-2.51161-2.06880I$	0
$u=-0.391791+0.739877I$ $a=\ \ 0.58553-1.63119I$ $b=\ \ 0.383432-0.761058I$	$3.22760+0.69995I$	0
$u=-0.391791-0.739877I$ $a=\ \ 0.58553+1.63119I$ $b=\ \ 0.383432+0.761058I$	$3.22760-0.69995I$	0
$u=\ \ 0.871004+0.777912I$ $a=\ \ 0.206283-0.510731I$ $b=\ \ 0.116298+0.296311I$	$4.12281-2.95423I$	0
$u=\ \ 0.871004-0.777912I$ $a=\ \ 0.206283+0.510731I$ $b=\ \ 0.116298-0.296311I$	$4.12281+2.95423I$	0
$u=\ \ 0.950379+0.693123I$ $a=\ \ 0.098369+0.687118I$ $b=-0.852088-0.816566I$	$4.72897-5.41685I$	0
$u=\ \ 0.950379-0.693123I$ $a=\ \ 0.098369-0.687118I$ $b=-0.852088+0.816566I$	$4.72897+5.41685I$	0
$u=\ \ 0.912205+0.761221I$ $a=\ \ 0.216369-0.079053I$ $b=-0.370394+0.185676I$	$3.99901-2.89538I$	0
$u=\ \ 0.912205-0.761221I$ $a=\ \ 0.216369+0.079053I$ $b=-0.370394-0.185676I$	$3.99901+2.89538I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.043050+0.574371I$ $a=-1.44284+1.64925I$ $b=\ \ 0.293245+0.952720I$	$-2.59632+7.39711I$	0
$u=-1.043050-0.574371I$ $a=-1.44284-1.64925I$ $b=\ \ 0.293245-0.952720I$	$-2.59632-7.39711I$	0
$u=-0.464593+0.660693I$ $a=\ \ 0.653230+0.495283I$ $b=-0.227972+0.873123I$	$-0.91891-2.58208I$	0
$u=-0.464593-0.660693I$ $a=\ \ 0.653230-0.495283I$ $b=-0.227972-0.873123I$	$-0.91891+2.58208I$	0
$u=\ \ 0.604766+1.033010I$ $a=\ \ 0.521083-0.515330I$ $b=-0.822070-1.015320I$	$11.2961+12.0792I$	0
$u=\ \ 0.604766-1.033010I$ $a=\ \ 0.521083+0.515330I$ $b=-0.822070+1.015320I$	$11.2961-12.0792I$	0
$u=-0.951867+0.730677I$ $a=\ \ 0.0858137-0.0438546I$ $b=-0.801256+0.912454I$	$4.34524-0.60821I$	0
$u=-0.951867-0.730677I$ $a=\ \ 0.0858137+0.0438546I$ $b=-0.801256-0.912454I$	$4.34524+0.60821I$	0
$u=-0.645211+1.011900I$ $a=\ \ 0.608093-0.431790I$ $b=-0.922887-0.793624I$	$12.00020-5.64780I$	0
$u=-0.645211-1.011900I$ $a=\ \ 0.608093+0.431790I$ $b=-0.922887+0.793624I$	$12.00020+5.64780I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.006860+0.668567I$ $a=\ \ 1.63118-2.10655I$ $b=-0.785826-0.946557I$	$8.34978+8.59728I$	0
$u=-1.006860-0.668567I$ $a=\ \ 1.63118+2.10655I$ $b=-0.785826+0.946557I$	$8.34978-8.59728I$	0
$u=-0.986126+0.704274I$ $a=\ \ 1.73583-1.14409I$ $b=-0.798178-0.969579I$	$4.25182+11.56620I$	0
$u=-0.986126-0.704274I$ $a=\ \ 1.73583+1.14409I$ $b=-0.798178+0.969579I$	$4.25182-11.56620I$	0
$u=-0.967998+0.729531I$ $a=-0.187675-0.511154I$ $b=-0.941554+0.046265I$	$5.52884+7.95039I$	0
$u=-0.967998-0.729531I$ $a=-0.187675+0.511154I$ $b=-0.941554-0.046265I$	$5.52884-7.95039I$	0
$u=-1.213820+0.047286I$ $a=-0.50274-2.16777I$ $b=-0.198147-0.950056I$	$-3.15186+5.37506I$	0
$u=-1.213820-0.047286I$ $a=-0.50274+2.16777I$ $b=-0.198147+0.950056I$	$-3.15186-5.37506I$	0
$u=\ \ 0.995430+0.701514I$ $a=-0.804785+0.560936I$ $b=-0.821313-0.831824I$	$8.70655-2.57771I$	0
$u=\ \ 0.995430-0.701514I$ $a=-0.804785-0.560936I$ $b=-0.821313+0.831824I$	$8.70655+2.57771I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.980256+0.722792I$ $a=-0.636460-0.364214I$ $b=-0.995123+0.706512I$	$9.60423+2.82442I$	0
$u=-0.980256-0.722792I$ $a=-0.636460+0.364214I$ $b=-0.995123-0.706512I$	$9.60423-2.82442I$	0
$u=1.020710+0.687002I$ $a=1.19704+1.91362I$ $b=-0.819185+1.090530I$	$8.39915-9.44343I$	0
$u=1.020710-0.687002I$ $a=1.19704-1.91362I$ $b=-0.819185-1.090530I$	$8.39915+9.44343I$	0
$u=0.787074+0.955449I$ $a=-0.002809-0.579455I$ $b=0.229015-0.498669I$	$4.14100-3.37002I$	0
$u=0.787074-0.955449I$ $a=-0.002809+0.579455I$ $b=0.229015+0.498669I$	$4.14100+3.37002I$	0
$u=1.158490+0.450593I$ $a=-0.96436-1.48450I$ $b=0.085295-0.506323I$	$-0.69205-4.33660I$	0
$u=1.158490-0.450593I$ $a=-0.96436+1.48450I$ $b=0.085295+0.506323I$	$-0.69205+4.33660I$	0
$u=-0.685173+0.317043I$ $a=1.79057-1.21817I$ $b=-0.048943-0.978647I$	$-0.91541+1.40595I$	0
$u=-0.685173-0.317043I$ $a=1.79057+1.21817I$ $b=-0.048943+0.978647I$	$-0.91541-1.40595I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.019550 + 0.718152I$ $a = 1.18723 + 1.02002I$ $b = -0.814680 + 0.871376I$	$4.47352 - 5.43867I$	0
$u = 1.019550 - 0.718152I$ $a = 1.18723 - 1.02002I$ $b = -0.814680 - 0.871376I$	$4.47352 + 5.43867I$	0
$u = 1.046040 + 0.690874I$ $a = 0.97455 + 2.00913I$ $b = -0.354533 + 1.167360I$	$1.67799 - 12.38850I$	0
$u = 1.046040 - 0.690874I$ $a = 0.97455 - 2.00913I$ $b = -0.354533 - 1.167360I$	$1.67799 + 12.38850I$	0
$u = -1.110950 + 0.708410I$ $a = 0.58130 - 2.03304I$ $b = -0.216885 - 0.935124I$	$1.24634 + 4.93011I$	0
$u = -1.110950 - 0.708410I$ $a = 0.58130 + 2.03304I$ $b = -0.216885 + 0.935124I$	$1.24634 - 4.93011I$	0
$u = -0.429285 + 1.257950I$ $a = 0.534786 + 0.523258I$ $b = -0.815202 + 0.909757I$	$9.78355 - 1.54381I$	0
$u = -0.429285 - 1.257950I$ $a = 0.534786 - 0.523258I$ $b = -0.815202 - 0.909757I$	$9.78355 + 1.54381I$	0
$u = 0.396216 + 0.539236I$ $a = 0.822039 - 0.202347I$ $b = -0.435370 - 0.074616I$	$1.50437 + 0.57239I$	$5.94469 - 0.24077I$
$u = 0.396216 - 0.539236I$ $a = 0.822039 + 0.202347I$ $b = -0.435370 + 0.074616I$	$1.50437 - 0.57239I$	$5.94469 + 0.24077I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.109900+0.783654I$ $a=0.487496+0.278455I$ $b=0.942675-0.755348I$	$10.5317+12.1645I$	0
$u=-1.109900-0.783654I$ $a=0.487496-0.278455I$ $b=0.942675+0.755348I$	$10.5317-12.1645I$	0
$u=0.503653+1.264530I$ $a=0.613804+0.532606I$ $b=-0.822811+0.883056I$	$9.86573-4.57266I$	0
$u=0.503653-1.264530I$ $a=0.613804-0.532606I$ $b=-0.822811-0.883056I$	$9.86573+4.57266I$	0
$u=1.135840+0.771590I$ $a=-1.21683-1.72488I$ $b=0.810216-1.043110I$	$9.6187-18.6094I$	0
$u=1.135840-0.771590I$ $a=-1.21683+1.72488I$ $b=0.810216+1.043110I$	$9.6187+18.6094I$	0
$u=-0.491450+0.334915I$ $a=1.43190-0.29166I$ $b=-0.036948-0.833886I$	$-0.84720+1.41340I$	$-4.24798-5.20479I$
$u=-0.491450-0.334915I$ $a=1.43190+0.29166I$ $b=-0.036948+0.833886I$	$-0.84720-1.41340I$	$-4.24798+5.20479I$
$u=1.41670+0.24907I$ $a=0.391736+0.998608I$ $b=0.809282+0.821395I$	$3.17724-3.55761I$	0
$u=1.41670-0.24907I$ $a=0.391736-0.998608I$ $b=0.809282-0.821395I$	$3.17724+3.55761I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.43488+0.19128I$ $a=-0.07548+1.62220I$ $b=\ \ 0.775054+0.949589I$	$2.78125+9.50796I$	0
$u=-1.43488-0.19128I$ $a=-0.07548-1.62220I$ $b=\ \ 0.775054-0.949589I$	$2.78125-9.50796I$	0
$u=-0.086265+0.498965I$ $a=\ \ 0.772699-0.440926I$ $b=-0.409913-0.799347I$	$-0.25338+1.63604I$	$-2.01455-4.40810I$
$u=-0.086265-0.498965I$ $a=\ \ 0.772699+0.440926I$ $b=-0.409913+0.799347I$	$-0.25338-1.63604I$	$-2.01455+4.40810I$
$u=\ \ 1.21190+0.93009I$ $a=\ \ 0.158056+0.037351I$ $b=\ \ 0.815383+0.814632I$	$7.74209-3.09197I$	0
$u=\ \ 1.21190-0.93009I$ $a=\ \ 0.158056-0.037351I$ $b=\ \ 0.815383-0.814632I$	$7.74209+3.09197I$	0
$u=-1.25287+0.88594I$ $a=-1.02618+1.42812I$ $b=\ \ 0.775781+0.954947I$	$7.30859+9.06132I$	0
$u=-1.25287-0.88594I$ $a=-1.02618-1.42812I$ $b=\ \ 0.775781-0.954947I$	$7.30859-9.06132I$	0
$u=-0.238548+0.248330I$ $a=\ \ 3.41361-2.58485I$ $b=\ \ 0.618216-0.722841I$	$3.23053+0.91293I$	$5.24339-2.95455I$
$u=-0.238548-0.248330I$ $a=\ \ 3.41361+2.58485I$ $b=\ \ 0.618216+0.722841I$	$3.23053-0.91293I$	$5.24339+2.95455I$

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$0.248068+0.092479I$		
$a=$	$5.11601+1.37161I$	$2.54981+5.86442I$	$3.70628-9.11728I$
$b=$	$0.629717+0.947239I$		
$u=$	$0.248068-0.092479I$		
$a=$	$5.11601-1.37161I$	$2.54981-5.86442I$	$3.70628+9.11728I$
$b=$	$0.629717-0.947239I$		
$u=$	$0.0471368+0.0733553I$		
$a=$	$4.23325-1.18357I$	$8.01964-3.23859I$	$-7.45734+4.03366I$
$b=$	$0.876687-0.917815I$		
$u=$	$0.0471368-0.0733553I$		
$a=$	$4.23325+1.18357I$	$8.01964+3.23859I$	$-7.45734-4.03366I$
$b=$	$0.876687+0.917815I$		

II. $I_2^u =$
$\langle 7u^{27}-42u^{25}+\cdots+16u^3+b,\ 24u^{27}-13u^{26}+\cdots+a+27,\ u^{28}-7u^{26}+\cdots+u+1\rangle$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u \\ -u^3+u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^3 \\ u^5-u^3+u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -24u^{27}+13u^{26}+\cdots-17u-27 \\ -7u^{27}+42u^{25}+\cdots-17u^4-16u^3 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 7u^{27}-42u^{25}+\cdots-7u^2-6u \\ 6u^{27}-36u^{25}+\cdots-u-1 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} u^{24}-5u^{22}+\cdots-u^3+2 \\ u^{27}-7u^{25}+\cdots-30u^2+6 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 5u^{27}-29u^{25}+\cdots+6u-2 \\ u^{26}+4u^{25}+\cdots+6u-6 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -17u^{27}+13u^{26}+\cdots-17u-27 \\ -7u^{27}+42u^{25}+\cdots-17u^4-16u^3 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -17u^{27}+u^{26}+\cdots+11u+1 \\ -7u^{27}+42u^{25}+\cdots+5u+5 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} u^{22}-5u^{20}+\cdots-u+1 \\ u^{27}-7u^{25}+\cdots-31u^2+6 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes
$= -17u^{27}+16u^{26}+94u^{25}-121u^{24}-302u^{23}+485u^{22}+615u^{21}-1288u^{20}-837u^{19}+2486u^{18}+637u^{17}-3610u^{16}+27u^{15}+4051u^{14}-857u^{13}-3549u^{12}+1316u^{11}+2459u^{10}-1253u^9-1354u^8+828u^7+623u^6-454u^5-212u^4+176u^3+39u^2-40u-2$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{28} - 14u^{27} + \cdots - 15u + 1$
c_2	$u^{28} - 7u^{26} + \cdots - u + 1$
c_3	$u^{28} - u^{27} + \cdots + 2u + 1$
c_4	$u^{28} - u^{27} + \cdots + 10u^2 + 1$
c_5	$u^{28} + 6u^{26} + \cdots + u + 1$
c_6	$u^{28} - 7u^{26} + \cdots + u + 1$
c_7	$u^{28} + u^{27} + \cdots + 10u^2 + 1$
c_8	$u^{28} - 4u^{27} + \cdots + 4u + 1$
c_9	$u^{28} - 12u^{27} + \cdots - 19u + 1$
c_{10}	$u^{28} + 6u^{26} + \cdots - u + 1$
c_{11}	$u^{28} + 12u^{27} + \cdots + 19u + 1$
c_{12}	$u^{28} - 4u^{26} + \cdots + 6u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{28} + 14y^{27} + \cdots + 5y + 1$
c_2, c_6	$y^{28} - 14y^{27} + \cdots - 15y + 1$
c_3	$y^{28} - 9y^{27} + \cdots + 2y + 1$
c_4, c_7	$y^{28} + 27y^{27} + \cdots + 20y + 1$
c_5, c_{10}	$y^{28} + 12y^{27} + \cdots + 19y + 1$
c_8	$y^{28} - 12y^{27} + \cdots - 4y + 1$
c_9, c_{11}	$y^{28} + 20y^{27} + \cdots - 13y + 1$
c_{12}	$y^{28} - 8y^{27} + \cdots - 2y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.853384+0.664222I$ $a=-0.74588+1.96237I$ $b=-0.055540+1.152000I$	$1.13519+2.58168I$	$0.88409-2.94336I$
$u=-0.853384-0.664222I$ $a=-0.74588-1.96237I$ $b=-0.055540-1.152000I$	$1.13519-2.58168I$	$0.88409+2.94336I$
$u=\ 0.537923+0.717505I$ $a=-0.551794-0.411796I$ $b=\ 0.869642-0.869300I$	$8.72159-3.57143I$	$3.18095+6.94400I$
$u=\ 0.537923-0.717505I$ $a=-0.551794+0.411796I$ $b=\ 0.869642+0.869300I$	$8.72159+3.57143I$	$3.18095-6.94400I$
$u=\ 1.031470+0.394259I$ $a=\ 0.884019+1.015720I$ $b=\ 0.253524+0.965914I$	$-1.88762-2.73582I$	$-2.46197+5.39447I$
$u=\ 1.031470-0.394259I$ $a=\ 0.884019-1.015720I$ $b=\ 0.253524-0.965914I$	$-1.88762+2.73582I$	$-2.46197-5.39447I$
$u=\ 1.090380+0.316011I$ $a=-0.462318-1.181840I$ $b=\ 0.645164-0.927138I$	$0.60203-7.50140I$	$-0.88511+8.77591I$
$u=\ 1.090380-0.316011I$ $a=-0.462318+1.181840I$ $b=\ 0.645164+0.927138I$	$0.60203+7.50140I$	$-0.88511-8.77591I$
$u=-1.120860+0.329178I$ $a=-0.321036-1.144460I$ $b=\ 0.655538-0.798001I$	$1.01471+2.43520I$	$-1.10146-2.81294I$
$u=-1.120860-0.329178I$ $a=-0.321036+1.144460I$ $b=\ 0.655538+0.798001I$	$1.01471-2.43520I$	$-1.10146+2.81294I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.748185 + 0.343846I$ $a = 2.12661 + 1.39161I$ $b = -0.238931 + 1.062580I$	$-0.803404 - 0.370994I$	$-0.048681 - 1.061898I$
$u = 0.748185 - 0.343846I$ $a = 2.12661 - 1.39161I$ $b = -0.238931 - 1.062580I$	$-0.803404 + 0.370994I$	$-0.048681 + 1.061898I$
$u = 0.776045 + 0.214980I$ $a = -1.84062 - 2.07691I$ $b = -0.643350 - 0.967561I$	$1.91593 + 5.26603I$	$-3.35797 - 3.30432I$
$u = 0.776045 - 0.214980I$ $a = -1.84062 + 2.07691I$ $b = -0.643350 + 0.967561I$	$1.91593 - 5.26603I$	$-3.35797 + 3.30432I$
$u = 0.832341 + 0.859052I$ $a = -0.0133238 + 0.0602746I$ $b = -0.069032 + 0.532020I$	$3.72092 - 3.19291I$	$-9.41688 + 4.51552I$
$u = 0.832341 - 0.859052I$ $a = -0.0133238 - 0.0602746I$ $b = -0.069032 - 0.532020I$	$3.72092 + 3.19291I$	$-9.41688 - 4.51552I$
$u = -1.120250 + 0.425286I$ $a = -0.62017 + 2.45055I$ $b = 0.269140 + 0.713663I$	$-0.92549 + 5.05069I$	$-4.03247 - 11.08870I$
$u = -1.120250 - 0.425286I$ $a = -0.62017 - 2.45055I$ $b = 0.269140 - 0.713663I$	$-0.92549 - 5.05069I$	$-4.03247 + 11.08870I$
$u = -0.507051 + 0.619888I$ $a = -0.636091 - 0.478461I$ $b = 0.854058 - 0.944793I$	$8.49765 - 2.80858I$	$2.42221 - 3.15710I$
$u = -0.507051 - 0.619888I$ $a = -0.636091 + 0.478461I$ $b = 0.854058 + 0.944793I$	$8.49765 + 2.80858I$	$2.42221 + 3.15710I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.736353+0.196912I$ $a=-0.84434-3.01531I$ $b=-0.656573-0.740205I$	$2.63471-0.19022I$	$-0.59998-2.55486I$
$u=-0.736353-0.196912I$ $a=-0.84434+3.01531I$ $b=-0.656573+0.740205I$	$2.63471+0.19022I$	$-0.59998+2.55486I$
$u=-0.635766+0.271311I$ $a=\ \ 2.65852+0.60310I$ $b=-0.289866+0.585639I$	$1.04277-1.99325I$	$1.45235+7.13924I$
$u=-0.635766-0.271311I$ $a=\ \ 2.65852-0.60310I$ $b=-0.289866-0.585639I$	$1.04277+1.99325I$	$1.45235-7.13924I$
$u=\ \ 1.047480+0.810442I$ $a=-0.367219+0.236642I$ $b=-0.817347-0.793291I$	$7.18286-2.42778I$	$1.33194-0.69515I$
$u=\ \ 1.047480-0.810442I$ $a=-0.367219-0.236642I$ $b=-0.817347+0.793291I$	$7.18286+2.42778I$	$1.33194+0.69515I$
$u=-1.090150+0.754545I$ $a=\ \ 1.23365-1.68460I$ $b=-0.776426-0.974996I$	$6.62657+8.40990I$	$0.13298-4.95467I$
$u=-1.090150-0.754545I$ $a=\ \ 1.23365+1.68460I$ $b=-0.776426+0.974996I$	$6.62657-8.40990I$	$0.13298+4.95467I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{28}-14u^{27}+\cdots-15u+1)(u^{124}+45u^{123}+\cdots-65u+1)$
c_2	$(u^{28}-7u^{26}+\cdots-u+1)(u^{124}-u^{123}+\cdots-13u+1)$
c_3	$(u^{28}-u^{27}+\cdots+2u+1)(u^{124}-18u^{122}+\cdots+83060u+9129)$
c_4	$(u^{28}-u^{27}+\cdots+10u^2+1)(u^{124}-2u^{123}+\cdots-570346u+135173)$
c_5	$(u^{28}+6u^{26}+\cdots+u+1)(u^{124}+u^{123}+\cdots+u+1)$
c_6	$(u^{28}-7u^{26}+\cdots+u+1)(u^{124}-u^{123}+\cdots-13u+1)$
c_7	$(u^{28}+u^{27}+\cdots+10u^2+1)(u^{124}-2u^{123}+\cdots-570346u+135173)$
c_8	$(u^{28}-4u^{27}+\cdots+4u+1)(u^{124}+11u^{123}+\cdots+19900u+5329)$
c_9	$(u^{28}-12u^{27}+\cdots-19u+1)(u^{124}+37u^{123}+\cdots+31u+1)$
c_{10}	$(u^{28}+6u^{26}+\cdots-u+1)(u^{124}+u^{123}+\cdots+u+1)$
c_{11}	$(u^{28}+12u^{27}+\cdots+19u+1)(u^{124}+37u^{123}+\cdots+31u+1)$
c_{12}	$(u^{28}-4u^{26}+\cdots+6u+1)(u^{124}+9u^{123}+\cdots+54702u+6689)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{28}+14y^{27}+\cdots+5y+1)(y^{124}+83y^{123}+\cdots+22757y+1)$
c_2, c_6	$(y^{28}-14y^{27}+\cdots-15y+1)(y^{124}-45y^{123}+\cdots+65y+1)$
c_3	$(y^{28}-9y^{27}+\cdots+2y+1)$ $\cdot(y^{124}-36y^{123}+\cdots-3698902198y+83338641)$
c_4, c_7	$(y^{28}+27y^{27}+\cdots+20y+1)$ $\cdot(y^{124}+108y^{123}+\cdots+105445018624y+18271739929)$
c_5, c_{10}	$(y^{28}+12y^{27}+\cdots+19y+1)(y^{124}+37y^{123}+\cdots+31y+1)$
c_8	$(y^{28}-12y^{27}+\cdots-4y+1)$ $\cdot(y^{124}-35y^{123}+\cdots-1554065648y+28398241)$
c_9, c_{11}	$(y^{28}+20y^{27}+\cdots-13y+1)(y^{124}+113y^{123}+\cdots-61y+1)$
c_{12}	$(y^{28}-8y^{27}+\cdots-2y+1)$ $\cdot(y^{124}-39y^{123}+\cdots-869394118y+44742721)$