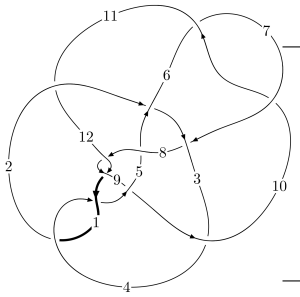
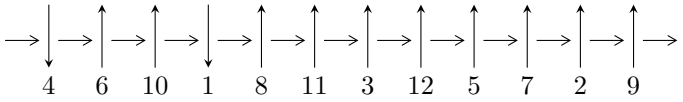
$12a_{0967}$ $(K12a_{0967})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & -4.27600 \times 10^{875} u^{169} + 7.13513 \times 10^{875} u^{168} + \cdots + 1.33107 \times 10^{876} b + 1.90372 \times 10^{875}, \\ & 1.44711 \times 10^{876} u^{169} - 1.04949 \times 10^{877} u^{168} + \cdots + 1.33107 \times 10^{876} a - 2.30300 \times 10^{877}, \\ & u^{170} - 5u^{169} + \cdots - 29u - 1 \rangle \\ I_2^u = \langle & 3.48049 \times 10^{36} u^{43} - 2.69494 \times 10^{36} u^{42} + \cdots + 3.27331 \times 10^{36} b - 1.51928 \times 10^{37}, \\ & - 1.62441 \times 10^{37} u^{43} - 4.60073 \times 10^{35} u^{42} + \cdots + 3.27331 \times 10^{36} a + 6.85745 \times 10^{37}, \\ & u^{44} + 12u^{42} + \cdots - 6u + 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 214 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. $\boldsymbol{I_1^u = \langle -4.28 \times 10^{875} u^{169} + 7.14 \times 10^{875} u^{168} + \cdots + 1.33 \times 10^{876} b + 1.90 \times 10^{875},\ 1.45 \times 10^{876} u^{169} - 1.05 \times 10^{877} u^{168} + \cdots + 1.33 \times 10^{876} a - 2.30 \times 10^{877},\ u^{170} - 5u^{169} + \cdots - 29u - 1 \rangle}$

(i) Arc colorings

$$a_7 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

$$a_4 = \begin{pmatrix} -1.08718u^{169} + 7.88454u^{168} + \cdots + 517.582u + 17.3019 \\ 0.321246u^{169} - 0.536045u^{168} + \cdots - 14.0802u - 0.143022 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} -1.40843u^{169} + 8.42059u^{168} + \cdots + 531.663u + 17.4449 \\ 0.321246u^{169} - 0.536045u^{168} + \cdots - 14.0802u - 0.143022 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -4.45236u^{169} + 19.7302u^{168} + \cdots + 844.035u + 32.1285 \\ -0.329848u^{169} + 0.912181u^{168} + \cdots - 39.0468u - 1.00358 \end{pmatrix}$$

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

$$a_2 = \begin{pmatrix} -1.32991u^{169} + 9.02243u^{168} + \cdots + 511.041u + 16.6683 \\ 0.397065u^{169} - 0.699324u^{168} + \cdots - 22.3763u - 0.360872 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 2.70091u^{169} - 13.9853u^{168} + \cdots + 148.112u + 18.0000 \\ 0.336931u^{169} - 1.15882u^{168} + \cdots - 55.9492u - 2.40158 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 3.26780u^{169} - 15.9430u^{168} + \cdots - 576.334u - 22.1229 \\ -0.120267u^{169} + 1.13510u^{168} + \cdots + 34.2078u + 1.35183 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.764452u^{169} + 7.07131u^{168} + \cdots + 110.737u - 7.10687 \\ -0.0387726u^{169} + 1.38458u^{168} + \cdots - 18.0724u + 0.468304 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -2.39912u^{169} + 10.5574u^{168} + \cdots + 460.962u + 5.96555 \\ 0.423558u^{169} - 2.34133u^{168} + \cdots - 4.08119u + 0.413028 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -5.47805u^{169} + 31.7197u^{168} + \cdots + 153.364u + 10.6916$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4	$u^{170} + 8u^{169} + \cdots - 9499014u + 769055$
c_2	$u^{170} - 9u^{169} + \cdots - 9312096u + 1274848$
c_3	$u^{170} + u^{169} + \cdots - 1786148797u - 5447052019$
c_5	$u^{170} + 13u^{169} + \cdots + 2237637u + 300169$
c_6, c_{10}	$u^{170} - 5u^{169} + \cdots - 29u - 1$
c_7	$u^{170} + 3u^{169} + \cdots - 241024421u + 11830141$
c_8, c_{12}	$u^{170} + u^{169} + \cdots + 71528u - 163159$
c_9	$u^{170} - 3u^{169} + \cdots - 10173208u - 3146921$
c_{11}	$u^{170} + 12u^{169} + \cdots - 16844439u + 2548801$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4	$y^{170} + 124y^{169} + \cdots - 57608321480486y + 591445593025$
c_2	$y^{170} + 41y^{169} + \cdots + 85496782077440y + 1625237423104$
c_3	$y^{170} + 89y^{169} + \cdots + 1.51 \times 10^{21}y + 2.97 \times 10^{19}$
c_5	$y^{170} + 43y^{169} + \cdots + 3115277640751y + 90101428561$
c_6, c_{10}	$y^{170} + 113y^{169} + \cdots + 167y + 1$
c_7	$y^{170} + 63y^{169} + \cdots - 8243419434057653y + 139952236079881$
c_8, c_{12}	$y^{170} - 133y^{169} + \cdots - 836359475222y + 26620859281$
c_9	$y^{170} - 35y^{169} + \cdots + 110086202897966y + 9903111780241$
c_{11}	$y^{170} + 56y^{169} + \cdots + 3101150912137203y + 6496386537601$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.358984+0.938128I$ $a=\ \ 0.87626+1.72346I$ $b=-0.608562+0.995414I$	$3.07880-5.00603I$	0
$u=-0.358984-0.938128I$ $a=\ \ 0.87626-1.72346I$ $b=-0.608562-0.995414I$	$3.07880+5.00603I$	0
$u=\ \ 0.149489+0.981290I$ $a=-0.39622+2.63386I$ $b=\ \ 0.171353+1.173240I$	$3.11257+2.64464I$	0
$u=\ \ 0.149489-0.981290I$ $a=-0.39622-2.63386I$ $b=\ \ 0.171353-1.173240I$	$3.11257-2.64464I$	0
$u=-0.894429+0.397266I$ $a=\ \ 0.155099-0.844007I$ $b=\ \ 0.935844-0.241800I$	$9.21419-5.10834I$	0
$u=-0.894429-0.397266I$ $a=\ \ 0.155099+0.844007I$ $b=\ \ 0.935844+0.241800I$	$9.21419+5.10834I$	0
$u=\ \ 0.351933+0.905492I$ $a=\ \ 1.35732-0.46163I$ $b=-0.749929-0.904345I$	$4.26036+9.83244I$	0
$u=\ \ 0.351933-0.905492I$ $a=\ \ 1.35732+0.46163I$ $b=-0.749929+0.904345I$	$4.26036-9.83244I$	0
$u=-0.959787+0.021614I$ $a=\ \ 0.356042+0.363318I$ $b=-0.041148-0.436442I$	$0.36103+3.02788I$	0
$u=-0.959787-0.021614I$ $a=\ \ 0.356042-0.363318I$ $b=-0.041148+0.436442I$	$0.36103-3.02788I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.905359 + 0.519808I$ $a = -0.211162 + 1.148670I$ $b = 0.345219 + 1.235090I$	$5.79176 - 0.63772I$	0
$u = 0.905359 - 0.519808I$ $a = -0.211162 - 1.148670I$ $b = 0.345219 - 1.235090I$	$5.79176 + 0.63772I$	0
$u = -1.041260 + 0.162137I$ $a = -0.195765 - 0.371659I$ $b = 0.491730 - 1.137210I$	$-3.39653 - 4.01857I$	0
$u = -1.041260 - 0.162137I$ $a = -0.195765 + 0.371659I$ $b = 0.491730 + 1.137210I$	$-3.39653 + 4.01857I$	0
$u = -0.129388 + 1.047410I$ $a = -0.203586 - 0.159028I$ $b = 0.728530 + 0.259066I$	$1.56798 - 2.38640I$	0
$u = -0.129388 - 1.047410I$ $a = -0.203586 + 0.159028I$ $b = 0.728530 - 0.259066I$	$1.56798 + 2.38640I$	0
$u = -0.086351 + 1.062530I$ $a = 0.86211 - 2.82247I$ $b = 0.423310 - 1.299350I$	$3.02815 + 2.97469I$	0
$u = -0.086351 - 1.062530I$ $a = 0.86211 + 2.82247I$ $b = 0.423310 + 1.299350I$	$3.02815 - 2.97469I$	0
$u = 0.654950 + 0.662580I$ $a = 0.663710 + 0.797078I$ $b = 0.303235 - 0.747358I$	$4.97571 - 5.72324I$	0
$u = 0.654950 - 0.662580I$ $a = 0.663710 - 0.797078I$ $b = 0.303235 + 0.747358I$	$4.97571 + 5.72324I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.363380+1.025540I$ $a=-1.66170+0.71346I$ $b=-2.25117+0.25267I$	$4.44981-10.87120I$	0
$u=-0.363380-1.025540I$ $a=-1.66170-0.71346I$ $b=-2.25117-0.25267I$	$4.44981+10.87120I$	0
$u=-0.685164+0.600930I$ $a=\ \ 0.131451-0.227585I$ $b=\ \ 0.598615+0.763837I$	$4.07366+0.83692I$	0
$u=-0.685164-0.600930I$ $a=\ \ 0.131451+0.227585I$ $b=\ \ 0.598615-0.763837I$	$4.07366-0.83692I$	0
$u=-1.076660+0.171449I$ $a=-0.0898171+0.0136149I$ $b=\ \ 0.124258+1.042590I$	$0.73430+3.64814I$	0
$u=-1.076660-0.171449I$ $a=-0.0898171-0.0136149I$ $b=\ \ 0.124258-1.042590I$	$0.73430-3.64814I$	0
$u=\ \ 1.073740+0.190083I$ $a=\ \ 0.202327-0.371251I$ $b=-0.579160-0.999760I$	$-0.17316+8.52716I$	0
$u=\ \ 1.073740-0.190083I$ $a=\ \ 0.202327+0.371251I$ $b=-0.579160+0.999760I$	$-0.17316-8.52716I$	0
$u=\ \ 0.881440+0.189216I$ $a=-0.762298-0.049409I$ $b=-1.23696+1.13928I$	$3.58537+1.10845I$	0
$u=\ \ 0.881440-0.189216I$ $a=-0.762298+0.049409I$ $b=-1.23696-1.13928I$	$3.58537-1.10845I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.792880 + 0.428256I$ $a = -0.564492 - 0.509799I$ $b = -1.036170 + 0.406270I$	$3.41659 + 0.91213I$	0
$u = 0.792880 - 0.428256I$ $a = -0.564492 + 0.509799I$ $b = -1.036170 - 0.406270I$	$3.41659 - 0.91213I$	0
$u = -0.272810 + 1.076190I$ $a = -0.37197 - 1.70523I$ $b = 0.32902 - 1.56267I$	$-4.15359 - 1.41570I$	0
$u = -0.272810 - 1.076190I$ $a = -0.37197 + 1.70523I$ $b = 0.32902 + 1.56267I$	$-4.15359 + 1.41570I$	0
$u = 0.391618 + 1.039960I$ $a = -0.04388 + 1.53153I$ $b = 0.97841 + 1.03325I$	$1.46563 + 3.45220I$	0
$u = 0.391618 - 1.039960I$ $a = -0.04388 - 1.53153I$ $b = 0.97841 - 1.03325I$	$1.46563 - 3.45220I$	0
$u = 0.086089 + 1.113660I$ $a = -0.38989 - 2.37911I$ $b = -0.91963 - 1.22060I$	$-2.12231 + 1.70533I$	0
$u = 0.086089 - 1.113660I$ $a = -0.38989 + 2.37911I$ $b = -0.91963 + 1.22060I$	$-2.12231 - 1.70533I$	0
$u = 0.461621 + 1.021630I$ $a = -1.013880 + 0.786959I$ $b = -0.949096 + 0.684986I$	$4.10713 + 5.60266I$	0
$u = 0.461621 - 1.021630I$ $a = -1.013880 - 0.786959I$ $b = -0.949096 - 0.684986I$	$4.10713 - 5.60266I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.146778+1.113650I$ $a=-0.00568+2.77042I$ $b=-0.40913+2.28459I$	$-2.23788-5.07178I$	0
$u=-0.146778-1.113650I$ $a=-0.00568-2.77042I$ $b=-0.40913-2.28459I$	$-2.23788+5.07178I$	0
$u=0.505522+1.010370I$ $a=1.16249+1.67396I$ $b=1.95237+1.03140I$	$1.26931+3.95660I$	0
$u=0.505522-1.010370I$ $a=1.16249-1.67396I$ $b=1.95237-1.03140I$	$1.26931-3.95660I$	0
$u=-0.002446+1.130940I$ $a=0.51199-2.17240I$ $b=1.10202-1.91613I$	$-5.67349+0.05332I$	0
$u=-0.002446-1.130940I$ $a=0.51199+2.17240I$ $b=1.10202+1.91613I$	$-5.67349-0.05332I$	0
$u=-0.140161+1.132330I$ $a=-0.05789+1.46164I$ $b=0.648806+0.874273I$	$-2.31461-3.55736I$	0
$u=-0.140161-1.132330I$ $a=-0.05789-1.46164I$ $b=0.648806-0.874273I$	$-2.31461+3.55736I$	0
$u=-0.263762+1.115710I$ $a=-0.81839-1.32101I$ $b=0.832256-0.841845I$	$-0.97904-6.10867I$	0
$u=-0.263762-1.115710I$ $a=-0.81839+1.32101I$ $b=0.832256+0.841845I$	$-0.97904+6.10867I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.133321+1.146710I$ $a=\ \ 1.46605-2.90758I$ $b=\ \ 0.466582-0.741270I$	$1.34073-10.06810I$	0
$u=-0.133321-1.146710I$ $a=\ \ 1.46605+2.90758I$ $b=\ \ 0.466582+0.741270I$	$1.34073+10.06810I$	0
$u=-0.482607+1.049530I$ $a=-0.583589+0.577217I$ $b=-1.303960+0.237660I$	$7.14469+0.17226I$	0
$u=-0.482607-1.049530I$ $a=-0.583589-0.577217I$ $b=-1.303960-0.237660I$	$7.14469-0.17226I$	0
$u=-0.031379+1.154950I$ $a=-1.20303+2.28802I$ $b=\ \ 0.144926+0.792707I$	$-3.86382-3.91324I$	0
$u=-0.031379-1.154950I$ $a=-1.20303-2.28802I$ $b=\ \ 0.144926-0.792707I$	$-3.86382+3.91324I$	0
$u=-0.060169+1.170230I$ $a=\ \ 1.73726+2.16803I$ $b=-0.071987+0.827595I$	$-6.51258-1.32939I$	0
$u=-0.060169-1.170230I$ $a=\ \ 1.73726-2.16803I$ $b=-0.071987-0.827595I$	$-6.51258+1.32939I$	0
$u=-0.689189+0.458239I$ $a=\ \ 0.76961-1.77227I$ $b=\ \ 1.57785-0.55541I$	$6.16352+6.82205I$	0
$u=-0.689189-0.458239I$ $a=\ \ 0.76961+1.77227I$ $b=\ \ 1.57785+0.55541I$	$6.16352-6.82205I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.177070+0.017293I$ $a=-0.356734-0.365238I$ $b=-0.93177-1.22908I$	$-0.81185+8.17295I$	0
$u=-1.177070-0.017293I$ $a=-0.356734+0.365238I$ $b=-0.93177+1.22908I$	$-0.81185-8.17295I$	0
$u=1.177000+0.081728I$ $a=0.015198+0.153559I$ $b=-0.153265+0.887761I$	$0.10469-2.34643I$	0
$u=1.177000-0.081728I$ $a=0.015198-0.153559I$ $b=-0.153265-0.887761I$	$0.10469+2.34643I$	0
$u=0.141190+1.172410I$ $a=0.681885+0.688923I$ $b=-0.590588+0.473327I$	$-0.10416+4.97008I$	0
$u=0.141190-1.172410I$ $a=0.681885-0.688923I$ $b=-0.590588-0.473327I$	$-0.10416-4.97008I$	0
$u=1.181030+0.017013I$ $a=0.176539+0.377081I$ $b=0.80489+1.21474I$	$3.9574+14.5268I$	0
$u=1.181030-0.017013I$ $a=0.176539-0.377081I$ $b=0.80489-1.21474I$	$3.9574-14.5268I$	0
$u=-0.143324+0.804171I$ $a=1.278900+0.351900I$ $b=1.42970-0.35652I$	$-0.45328-1.51618I$	0
$u=-0.143324-0.804171I$ $a=1.278900-0.351900I$ $b=1.42970+0.35652I$	$-0.45328+1.51618I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.006920 + 0.809989I$ $a = 0.208219 - 0.071614I$ $b = -0.994123 - 0.986019I$	$4.07975 - 3.55082I$	0
$u = 0.006920 - 0.809989I$ $a = 0.208219 + 0.071614I$ $b = -0.994123 + 0.986019I$	$4.07975 + 3.55082I$	0
$u = -0.030537 + 1.190400I$ $a = 0.082000 - 1.054390I$ $b = -0.500202 - 0.500794I$	$-3.34741 + 0.91547I$	0
$u = -0.030537 - 1.190400I$ $a = 0.082000 + 1.054390I$ $b = -0.500202 + 0.500794I$	$-3.34741 - 0.91547I$	0
$u = 0.012089 + 1.194870I$ $a = -0.55756 - 1.64583I$ $b = -1.27632 - 1.37676I$	$-4.50477 + 3.57230I$	0
$u = 0.012089 - 1.194870I$ $a = -0.55756 + 1.64583I$ $b = -1.27632 + 1.37676I$	$-4.50477 - 3.57230I$	0
$u = 0.523557 + 0.610774I$ $a = -0.1145730 - 0.0252207I$ $b = -0.657466 + 0.712414I$	$3.87323 + 0.06583I$	0
$u = 0.523557 - 0.610774I$ $a = -0.1145730 + 0.0252207I$ $b = -0.657466 - 0.712414I$	$3.87323 - 0.06583I$	0
$u = 0.155581 + 1.185740I$ $a = 0.41969 + 2.44964I$ $b = 1.01446 + 2.11185I$	$0.60520 + 10.41640I$	0
$u = 0.155581 - 1.185740I$ $a = 0.41969 - 2.44964I$ $b = 1.01446 - 2.11185I$	$0.60520 - 10.41640I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.186320 + 0.231731I$ $a = -0.319999 + 0.082786I$ $b = -0.124459 + 0.600565I$	$0.47324 - 1.33934I$	0
$u = 1.186320 - 0.231731I$ $a = -0.319999 - 0.082786I$ $b = -0.124459 - 0.600565I$	$0.47324 + 1.33934I$	0
$u = 0.125959 + 1.214400I$ $a = -1.66229 - 2.02190I$ $b = -0.494152 - 0.538175I$	$-4.18915 + 4.21221I$	0
$u = 0.125959 - 1.214400I$ $a = -1.66229 + 2.02190I$ $b = -0.494152 + 0.538175I$	$-4.18915 - 4.21221I$	0
$u = 0.112463 + 1.222680I$ $a = -0.682429 + 0.211029I$ $b = -1.293920 + 0.355891I$	$-4.23647 + 2.40719I$	0
$u = 0.112463 - 1.222680I$ $a = -0.682429 - 0.211029I$ $b = -1.293920 - 0.355891I$	$-4.23647 - 2.40719I$	0
$u = 0.738707 + 0.196649I$ $a = 0.363855 - 0.288314I$ $b = -0.146217 + 0.994810I$	$1.87552 - 2.30328I$	0
$u = 0.738707 - 0.196649I$ $a = 0.363855 + 0.288314I$ $b = -0.146217 - 0.994810I$	$1.87552 + 2.30328I$	0
$u = -0.169648 + 1.232630I$ $a = 0.792877 + 0.682508I$ $b = 1.31029 + 0.74185I$	$-2.63492 - 6.62405I$	0
$u = -0.169648 - 1.232630I$ $a = 0.792877 - 0.682508I$ $b = 1.31029 - 0.74185I$	$-2.63492 + 6.62405I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.198813+1.228620I$ $a=-0.221282-1.295030I$ $b=\ \ 1.028340-0.759335I$	$-0.67043-5.81168I$	0
$u=-0.198813-1.228620I$ $a=-0.221282+1.295030I$ $b=\ \ 1.028340+0.759335I$	$-0.67043+5.81168I$	0
$u=\ \ 0.257373+1.243960I$ $a=-1.39878+1.55383I$ $b=\ \ 0.132742+1.042640I$	$-1.43857+6.12757I$	0
$u=\ \ 0.257373-1.243960I$ $a=-1.39878-1.55383I$ $b=\ \ 0.132742-1.042640I$	$-1.43857-6.12757I$	0
$u=\ \ 0.702950+0.145538I$ $a=-0.210636-0.383777I$ $b=\ \ 0.621542+0.158058I$	$0.339928-0.226718I$	0
$u=\ \ 0.702950-0.145538I$ $a=-0.210636+0.383777I$ $b=\ \ 0.621542-0.158058I$	$0.339928+0.226718I$	0
$u=\ \ 0.257093+1.281870I$ $a=\ \ 0.337818-0.998986I$ $b=-0.905144-0.513805I$	$0.56703+5.58880I$	0
$u=\ \ 0.257093-1.281870I$ $a=\ \ 0.337818+0.998986I$ $b=-0.905144+0.513805I$	$0.56703-5.58880I$	0
$u=\ \ 0.089120+1.306080I$ $a=\ \ 0.04092-1.48051I$ $b=-0.324188-1.284790I$	$-3.31007+0.31222I$	0
$u=\ \ 0.089120-1.306080I$ $a=\ \ 0.04092+1.48051I$ $b=-0.324188+1.284790I$	$-3.31007-0.31222I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.437398 + 1.245460I$ $a = -0.927788 - 0.033295I$ $b = -0.162519 + 0.473485I$	$-2.87035 + 4.53612I$	0
$u = 0.437398 - 1.245460I$ $a = -0.927788 + 0.033295I$ $b = -0.162519 - 0.473485I$	$-2.87035 - 4.53612I$	0
$u = -0.124227 + 1.315620I$ $a = 0.24894 - 1.68309I$ $b = 0.059017 - 0.781041I$	$-2.98246 + 0.79000I$	0
$u = -0.124227 - 1.315620I$ $a = 0.24894 + 1.68309I$ $b = 0.059017 + 0.781041I$	$-2.98246 - 0.79000I$	0
$u = -0.670747 + 0.001839I$ $a = 0.507676 + 0.953054I$ $b = -0.696949 + 0.443077I$	$1.35614 + 3.70926I$	0
$u = -0.670747 - 0.001839I$ $a = 0.507676 - 0.953054I$ $b = -0.696949 - 0.443077I$	$1.35614 - 3.70926I$	0
$u = -0.576671 + 0.315628I$ $a = 0.041104 + 1.266560I$ $b = -0.345092 - 0.509200I$	$1.44984 + 2.85698I$	0
$u = -0.576671 - 0.315628I$ $a = 0.041104 - 1.266560I$ $b = -0.345092 + 0.509200I$	$1.44984 - 2.85698I$	0
$u = -0.393385 + 1.302880I$ $a = -0.30569 - 1.41517I$ $b = 0.35923 - 1.37450I$	$-4.24700 - 1.20015I$	0
$u = -0.393385 - 1.302880I$ $a = -0.30569 + 1.41517I$ $b = 0.35923 + 1.37450I$	$-4.24700 + 1.20015I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.367910 + 0.102452I$ $a = 0.347756 - 1.202100I$ $b = 0.42962 - 2.11328I$	$4.32919 + 0.16885I$	0
$u = 1.367910 - 0.102452I$ $a = 0.347756 + 1.202100I$ $b = 0.42962 + 2.11328I$	$4.32919 - 0.16885I$	0
$u = -0.590101 + 1.246510I$ $a = -0.190565 + 1.225250I$ $b = -0.700767 + 1.215870I$	$-3.13756 - 2.07733I$	0
$u = -0.590101 - 1.246510I$ $a = -0.190565 - 1.225250I$ $b = -0.700767 - 1.215870I$	$-3.13756 + 2.07733I$	0
$u = -0.608738$ $a = 1.17642$ $b = -0.588708$	4.90876	0
$u = -0.46986 + 1.33718I$ $a = -0.234856 - 0.808441I$ $b = 0.726013 - 0.746689I$	$-3.85896 - 8.23184I$	0
$u = -0.46986 - 1.33718I$ $a = -0.234856 + 0.808441I$ $b = 0.726013 + 0.746689I$	$-3.85896 + 8.23184I$	0
$u = 0.50295 + 1.33882I$ $a = 1.64814 - 1.25440I$ $b = 0.40678 - 1.49148I$	$-0.87982 + 6.10551I$	0
$u = 0.50295 - 1.33882I$ $a = 1.64814 + 1.25440I$ $b = 0.40678 + 1.49148I$	$-0.87982 - 6.10551I$	0
$u = 0.34904 + 1.40048I$ $a = -1.32223 + 1.85888I$ $b = -0.03816 + 1.46590I$	$-1.54791 + 6.03526I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.34904 - 1.40048I$ $a = -1.32223 - 1.85888I$ $b = -0.03816 - 1.46590I$	$-1.54791 - 6.03526I$	0
$u = 0.42027 + 1.38795I$ $a = 0.204470 - 1.059950I$ $b = -0.653211 - 0.882158I$	$-4.86374 + 3.88643I$	0
$u = 0.42027 - 1.38795I$ $a = 0.204470 + 1.059950I$ $b = -0.653211 + 0.882158I$	$-4.86374 - 3.88643I$	0
$u = -0.57963 + 1.33233I$ $a = 0.610239 + 1.191450I$ $b = -0.515221 + 1.231590I$	$-2.95446 - 9.62666I$	0
$u = -0.57963 - 1.33233I$ $a = 0.610239 - 1.191450I$ $b = -0.515221 - 1.231590I$	$-2.95446 + 9.62666I$	0
$u = -0.46270 + 1.37892I$ $a = 0.42688 + 1.73651I$ $b = -0.70662 + 1.39334I$	$-8.18833 - 9.28459I$	0
$u = -0.46270 - 1.37892I$ $a = 0.42688 - 1.73651I$ $b = -0.70662 - 1.39334I$	$-8.18833 + 9.28459I$	0
$u = -0.28676 + 1.43559I$ $a = -0.367996 - 1.151240I$ $b = 0.398979 - 0.621131I$	$0.29317 - 2.83644I$	0
$u = -0.28676 - 1.43559I$ $a = -0.367996 + 1.151240I$ $b = 0.398979 + 0.621131I$	$0.29317 + 2.83644I$	0
$u = 0.46761 + 1.40325I$ $a = -0.31390 + 1.65939I$ $b = 0.77049 + 1.28473I$	$-5.1466 + 13.9272I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.46761 - 1.40325I$ $a = -0.31390 - 1.65939I$ $b = 0.77049 - 1.28473I$	$-5.1466 - 13.9272I$	0
$u = 0.44102 + 1.41372I$ $a = 0.280419 - 1.209350I$ $b = -0.452422 - 1.080790I$	$-4.97968 + 3.35430I$	0
$u = 0.44102 - 1.41372I$ $a = 0.280419 + 1.209350I$ $b = -0.452422 + 1.080790I$	$-4.97968 - 3.35430I$	0
$u = -0.55238 + 1.38004I$ $a = -0.15940 - 2.01339I$ $b = 0.94245 - 1.66519I$	$-5.1358 - 14.2213I$	0
$u = -0.55238 - 1.38004I$ $a = -0.15940 + 2.01339I$ $b = 0.94245 + 1.66519I$	$-5.1358 + 14.2213I$	0
$u = 0.54989 + 1.38904I$ $a = 0.24906 - 1.90123I$ $b = -0.88420 - 1.57528I$	$-0.4771 + 20.5739I$	0
$u = 0.54989 - 1.38904I$ $a = 0.24906 + 1.90123I$ $b = -0.88420 + 1.57528I$	$-0.4771 - 20.5739I$	0
$u = 0.56659 + 1.38300I$ $a = -0.391741 + 1.214660I$ $b = 0.541906 + 1.174940I$	$-4.07185 + 8.51944I$	0
$u = 0.56659 - 1.38300I$ $a = -0.391741 - 1.214660I$ $b = 0.541906 - 1.174940I$	$-4.07185 - 8.51944I$	0
$u = 0.500783 + 0.044259I$ $a = -1.69189 - 0.95478I$ $b = 0.554368 + 0.323226I$	$4.66111 + 2.62386I$	$21.4268 - 7.2659I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.500783 - 0.044259I$ $a = -1.69189 + 0.95478I$ $b = 0.554368 - 0.323226I$	$4.66111 - 2.62386I$	$21.4268 + 7.2659I$
$u = 0.59612 + 1.39953I$ $a = -0.055130 + 1.188340I$ $b = 0.595156 + 1.107120I$	$-3.43167 + 7.89076I$	0
$u = 0.59612 - 1.39953I$ $a = -0.055130 - 1.188340I$ $b = 0.595156 - 1.107120I$	$-3.43167 - 7.89076I$	0
$u = 0.58287 + 1.41710I$ $a = 0.64117 - 2.59862I$ $b = -0.57051 - 2.21846I$	$-0.13718 + 6.51724I$	0
$u = 0.58287 - 1.41710I$ $a = 0.64117 + 2.59862I$ $b = -0.57051 + 2.21846I$	$-0.13718 - 6.51724I$	0
$u = -0.62582 + 1.40356I$ $a = -0.716498 - 1.007940I$ $b = -0.077784 - 1.139690I$	$-7.02247 - 2.27765I$	0
$u = -0.62582 - 1.40356I$ $a = -0.716498 + 1.007940I$ $b = -0.077784 + 1.139690I$	$-7.02247 + 2.27765I$	0
$u = 0.459152$ $a = -0.421273$ $b = 0.402988$	0.696800	13.7940
$u = -0.44455 + 1.47868I$ $a = 1.051710 + 0.638252I$ $b = 0.328305 + 0.824369I$	$-5.82788 + 2.07583I$	0
$u = -0.44455 - 1.47868I$ $a = 1.051710 - 0.638252I$ $b = 0.328305 - 0.824369I$	$-5.82788 - 2.07583I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.56302+1.49417I$ $a=\ 0.04275+1.42617I$ $b=-0.602592+1.077620I$	$2.77004-11.01100I$	0
$u=-0.56302-1.49417I$ $a=\ 0.04275-1.42617I$ $b=-0.602592-1.077620I$	$2.77004+11.01100I$	0
$u=\ 0.50008+1.54970I$ $a=-0.898921+0.785182I$ $b=-0.322588+0.925765I$	$-0.89047-8.06915I$	0
$u=\ 0.50008-1.54970I$ $a=-0.898921-0.785182I$ $b=-0.322588-0.925765I$	$-0.89047+8.06915I$	0
$u=\ 0.73394+1.47513I$ $a=\ 0.494742-0.811471I$ $b=\ 0.104834-0.934226I$	$-3.60644-1.81302I$	0
$u=\ 0.73394-1.47513I$ $a=\ 0.494742+0.811471I$ $b=\ 0.104834+0.934226I$	$-3.60644+1.81302I$	0
$u=-0.144728+0.249379I$ $a=\ 3.36063+1.11428I$ $b=\ 0.98509+1.27323I$	$0.14037+3.52807I$	$9.96847-1.54788I$
$u=-0.144728-0.249379I$ $a=\ 3.36063-1.11428I$ $b=\ 0.98509-1.27323I$	$0.14037-3.52807I$	$9.96847+1.54788I$
$u=-0.270980+0.082812I$ $a=\ 0.69988+2.40415I$ $b=\ 0.295232+0.512056I$	$0.46937+1.85768I$	$2.23040-2.92876I$
$u=-0.270980-0.082812I$ $a=\ 0.69988-2.40415I$ $b=\ 0.295232-0.512056I$	$0.46937-1.85768I$	$2.23040+2.92876I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.162543+0.093875I$ $a=-4.84800+1.07963I$ $b=-0.364873-1.034580I$	$-3.06785-0.45708I$	$3.27947+2.16717I$
$u=-0.162543-0.093875I$ $a=-4.84800-1.07963I$ $b=-0.364873+1.034580I$	$-3.06785+0.45708I$	$3.27947-2.16717I$
$u=-1.81028+0.22195I$ $a=\ \ 0.221534+0.493693I$ $b=\ \ 0.240501+0.710115I$	$8.01090+3.31197I$	0
$u=-1.81028-0.22195I$ $a=\ \ 0.221534-0.493693I$ $b=\ \ 0.240501-0.710115I$	$8.01090-3.31197I$	0
$u=-0.1114820+0.0598260I$ $a=\ \ 7.84979-4.38129I$ $b=-0.514786+0.481492I$	$3.08472-4.08944I$	$10.6833+13.0809I$
$u=-0.1114820-0.0598260I$ $a=\ \ 7.84979+4.38129I$ $b=-0.514786-0.481492I$	$3.08472+4.08944I$	$10.6833-13.0809I$
$u=\ \ 0.0518069+0.1009840I$ $a=\ \ 4.96077+6.67191I$ $b=-0.98846-1.02020I$	$4.19433+9.07341I$	$12.31225-4.07596I$
$u=\ \ 0.0518069-0.1009840I$ $a=\ \ 4.96077-6.67191I$ $b=-0.98846+1.02020I$	$4.19433-9.07341I$	$12.31225+4.07596I$
$u=-0.0381800+0.0723039I$ $a=-11.89280+1.73569I$ $b=\ \ 0.504044+0.760514I$	$-0.92999+3.56265I$	$6.92723-5.85262I$
$u=-0.0381800-0.0723039I$ $a=-11.89280-1.73569I$ $b=\ \ 0.504044-0.760514I$	$-0.92999-3.56265I$	$6.92723+5.85262I$

II. $I_2^u = \langle 3.48\times 10^{36}u^{43} - 2.69\times 10^{36}u^{42} + \cdots + 3.27\times 10^{36}b - 1.52\times 10^{37},\ -1.62\times 10^{37}u^{43} - 4.60\times 10^{35}u^{42} + \cdots + 3.27\times 10^{36}a + 6.86\times 10^{37},\ u^{44} + 12u^{42} + \cdots - 6u + 1\rangle$

(i) Arc colorings

$$a_7 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

$$a_4 = \begin{pmatrix} 4.96257u^{43} + 0.140553u^{42} + \cdots + 139.967u - 20.9496 \\ -1.06329u^{43} + 0.823306u^{42} + \cdots - 30.2803u + 4.64143 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} 6.02586u^{43} - 0.682754u^{42} + \cdots + 170.247u - 25.5910 \\ -1.06329u^{43} + 0.823306u^{42} + \cdots - 30.2803u + 4.64143 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -1.50437u^{43} + 0.651608u^{42} + \cdots - 67.4553u + 4.82112 \\ -0.918168u^{43} - 0.599653u^{42} + \cdots + 3.47640u - 1.71295 \end{pmatrix}$$

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

$$a_2 = \begin{pmatrix} 6.75370u^{43} + 0.480381u^{42} + \cdots + 174.790u - 25.6592 \\ -1.13152u^{43} + 1.31953u^{42} + \cdots - 41.0747u + 5.87280 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -1.86834u^{43} + 1.11053u^{42} + \cdots - 39.1351u + 5.21743 \\ 1.33266u^{43} + 0.187223u^{42} + \cdots + 29.8720u - 4.99007 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 7.90214u^{43} - 0.170261u^{42} + \cdots + 201.034u - 23.1074 \\ -1.73375u^{43} + 0.937930u^{42} + \cdots - 54.1342u + 8.37624 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 2.80544u^{43} - 0.0590863u^{42} + \cdots + 34.5081u + 6.92673 \\ -0.356787u^{43} + 0.455088u^{42} + \cdots - 17.9865u + 2.74765 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -5.64262u^{43} + 1.04730u^{42} + \cdots - 154.061u + 16.2060 \\ 1.04739u^{43} - 0.795115u^{42} + \cdots + 52.5292u - 8.96479 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -2.46673u^{43} - 2.84271u^{42} + \cdots - 13.2599u + 16.8473$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{44} - 13u^{43} + \cdots + 11u + 1$
c_2	$u^{44} + 2u^{43} + \cdots + 6u + 1$
c_3	$u^{44} + 18u^{42} + \cdots - 6u + 1$
c_4	$u^{44} + 13u^{43} + \cdots - 11u + 1$
c_5	$u^{44} + 6u^{43} + \cdots + 6u + 1$
c_6	$u^{44} + 12u^{42} + \cdots + 6u + 1$
c_7	$u^{44} + 13u^{42} + \cdots + 14u + 3$
c_8	$u^{44} - 2u^{43} + \cdots + 7u + 3$
c_9	$u^{44} + 2u^{43} + \cdots - 45u + 47$
c_{10}	$u^{44} + 12u^{42} + \cdots - 6u + 1$
c_{11}	$u^{44} + 3u^{43} + \cdots - 14u + 1$
c_{12}	$u^{44} + 2u^{43} + \cdots - 7u + 3$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4	$y^{44} + 39y^{43} + \cdots - 201y + 1$
c_2	$y^{44} + 8y^{43} + \cdots + 56y + 1$
c_3	$y^{44} + 36y^{43} + \cdots + 38y + 1$
c_5	$y^{44} + 6y^{43} + \cdots + 8y + 1$
c_6, c_{10}	$y^{44} + 24y^{43} + \cdots + 48y + 1$
c_7	$y^{44} + 26y^{43} + \cdots + 272y + 9$
c_8, c_{12}	$y^{44} - 46y^{43} + \cdots - 157y + 9$
c_9	$y^{44} + 4y^{43} + \cdots - 2589y + 2209$
c_{11}	$y^{44} + 11y^{43} + \cdots - 32y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.168699 + 0.873698I$ $a = -0.175400 - 0.014927I$ $b = 1.15323 + 0.83683I$	$3.23257 + 9.55584I$	$5.50626 - 7.33826I$
$u = 0.168699 - 0.873698I$ $a = -0.175400 + 0.014927I$ $b = 1.15323 - 0.83683I$	$3.23257 - 9.55584I$	$5.50626 + 7.33826I$
$u = -1.110520 + 0.148620I$ $a = -0.0650585 - 0.0240332I$ $b = 0.162652 + 0.880342I$	$-0.38676 + 3.62987I$	$0.59343 - 7.43414I$
$u = -1.110520 - 0.148620I$ $a = -0.0650585 + 0.0240332I$ $b = 0.162652 - 0.880342I$	$-0.38676 - 3.62987I$	$0.59343 + 7.43414I$
$u = -0.136719 + 1.148040I$ $a = -0.47557 - 1.96019I$ $b = 0.01828 - 1.51353I$	$-5.01666 - 1.20404I$	$-1.16232 + 3.27359I$
$u = -0.136719 - 1.148040I$ $a = -0.47557 + 1.96019I$ $b = 0.01828 + 1.51353I$	$-5.01666 + 1.20404I$	$-1.16232 - 3.27359I$
$u = 0.109699 + 1.163300I$ $a = 0.31484 + 1.64858I$ $b = -0.322438 + 1.164590I$	$-2.81072 + 4.05385I$	$0.83525 - 5.38023I$
$u = 0.109699 - 1.163300I$ $a = 0.31484 - 1.64858I$ $b = -0.322438 - 1.164590I$	$-2.81072 - 4.05385I$	$0.83525 + 5.38023I$
$u = 0.810141 + 0.161718I$ $a = -0.043511 + 0.487129I$ $b = -0.703478 + 0.345551I$	$1.40429 - 1.25133I$	$11.94052 + 1.32130I$
$u = 0.810141 - 0.161718I$ $a = -0.043511 - 0.487129I$ $b = -0.703478 - 0.345551I$	$1.40429 + 1.25133I$	$11.94052 - 1.32130I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.182471+0.804224I$ $a=\ \ 0.24386+1.61311I$ $b=-0.91037+1.46957I$	$-0.69093-4.18597I$	$4.41547+5.11288I$
$u=-0.182471-0.804224I$ $a=\ \ 0.24386-1.61311I$ $b=-0.91037-1.46957I$	$-0.69093+4.18597I$	$4.41547-5.11288I$
$u=-0.139899+1.172790I$ $a=\ \ 0.026640-1.226660I$ $b=\ \ 0.765242-1.140680I$	$-4.95221-0.82001I$	$-0.577687+0.999529I$
$u=-0.139899-1.172790I$ $a=\ \ 0.026640+1.226660I$ $b=\ \ 0.765242+1.140680I$	$-4.95221+0.82001I$	$-0.577687-0.999529I$
$u=\ \ 0.183246+1.177100I$ $a=\ \ 0.602937+0.139649I$ $b=-0.515377-0.215354I$	$-2.76547+4.91173I$	$3.60106-7.49272I$
$u=\ \ 0.183246-1.177100I$ $a=\ \ 0.602937-0.139649I$ $b=-0.515377+0.215354I$	$-2.76547-4.91173I$	$3.60106+7.49272I$
$u=-0.222872+1.241630I$ $a=-0.633369-0.911203I$ $b=\ \ 0.811917-0.514166I$	$0.24295-6.01476I$	$9.5211+14.2821I$
$u=-0.222872-1.241630I$ $a=-0.633369+0.911203I$ $b=\ \ 0.811917+0.514166I$	$0.24295+6.01476I$	$9.5211-14.2821I$
$u=-0.074310+1.263830I$ $a=-0.74613+1.95769I$ $b=-0.584824+1.059630I$	$1.29658-8.73606I$	$6.95927+5.76577I$
$u=-0.074310-1.263830I$ $a=-0.74613-1.95769I$ $b=-0.584824-1.059630I$	$1.29658+8.73606I$	$6.95927-5.76577I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.726564 + 0.085897I$ $a = -0.329187 + 0.741675I$ $b = -0.059331 + 0.268645I$	$1.23680 - 1.73750I$	$13.75774 + 0.59480I$
$u = 0.726564 - 0.085897I$ $a = -0.329187 - 0.741675I$ $b = -0.059331 - 0.268645I$	$1.23680 + 1.73750I$	$13.75774 - 0.59480I$
$u = 1.301920 + 0.023880I$ $a = 0.322885 + 1.093370I$ $b = 0.56673 + 1.99578I$	$4.37554 - 0.52152I$	$15.2069 + 13.1256I$
$u = 1.301920 - 0.023880I$ $a = 0.322885 - 1.093370I$ $b = 0.56673 - 1.99578I$	$4.37554 + 0.52152I$	$15.2069 - 13.1256I$
$u = 0.387819 + 1.246420I$ $a = 0.906279 - 0.332513I$ $b = -0.050648 - 0.678007I$	$-2.84606 + 5.14862I$	$4.12821 - 8.91823I$
$u = 0.387819 - 1.246420I$ $a = 0.906279 + 0.332513I$ $b = -0.050648 + 0.678007I$	$-2.84606 - 5.14862I$	$4.12821 + 8.91823I$
$u = 0.341456 + 1.275580I$ $a = 0.12402 - 1.61950I$ $b = -0.97837 - 1.06805I$	$-0.32119 + 4.51831I$	$8.00000 + 0.I$
$u = 0.341456 - 1.275580I$ $a = 0.12402 + 1.61950I$ $b = -0.97837 + 1.06805I$	$-0.32119 - 4.51831I$	$8.00000 + 0.I$
$u = 0.332596 + 1.294270I$ $a = 0.574149 - 1.290590I$ $b = 0.211910 - 0.847264I$	$-2.65842 - 1.90928I$	$8.00000 + 0.I$
$u = 0.332596 - 1.294270I$ $a = 0.574149 + 1.290590I$ $b = 0.211910 + 0.847264I$	$-2.65842 + 1.90928I$	$8.00000 + 0.I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.505394+1.271180I$ $a=-0.248051-1.224570I$ $b=\ \ 0.376483-1.248210I$	$-5.08502-1.32219I$	0
$u=-0.505394-1.271180I$ $a=-0.248051+1.224570I$ $b=\ \ 0.376483+1.248210I$	$-5.08502+1.32219I$	0
$u=-0.415111+0.352749I$ $a=-0.50418+2.02114I$ $b=-0.356227-0.288267I$	$3.30173+3.52015I$	$14.3478-0.4980I$
$u=-0.415111-0.352749I$ $a=-0.50418-2.02114I$ $b=-0.356227+0.288267I$	$3.30173-3.52015I$	$14.3478+0.4980I$
$u=-0.56582+1.36438I$ $a=\ \ 0.387067+1.125530I$ $b=-0.613052+1.104510I$	$-4.31593-9.68588I$	0
$u=-0.56582-1.36438I$ $a=\ \ 0.387067-1.125530I$ $b=-0.613052-1.104510I$	$-4.31593+9.68588I$	0
$u=\ \ 0.51324+1.41665I$ $a=-1.42069+2.22836I$ $b=-0.05609+2.03286I$	$-0.60294+6.75977I$	0
$u=\ \ 0.51324-1.41665I$ $a=-1.42069-2.22836I$ $b=-0.05609-2.03286I$	$-0.60294-6.75977I$	0
$u=\ \ 0.123691+0.280803I$ $a=-0.02246-3.10720I$ $b=\ \ 0.669605+0.956282I$	$5.01238-3.34345I$	$15.8973+2.5521I$
$u=\ \ 0.123691-0.280803I$ $a=-0.02246+3.10720I$ $b=\ \ 0.669605-0.956282I$	$5.01238+3.34345I$	$15.8973-2.5521I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.71903+0.19842I$ $a=\quad 0.230010+0.513494I$ $b=\quad 0.263488+0.664205I$	$8.11047+3.27851I$	0
$u=-1.71903-0.19842I$ $a=\quad 0.230010-0.513494I$ $b=\quad 0.263488-0.664205I$	$8.11047-3.27851I$	0
$u=\quad 0.073072+0.240110I$ $a=\quad 0.93092+4.47877I$ $b=\quad 0.150658-0.543482I$	$4.23898-1.90477I$	$15.0152+0.2418I$
$u=\quad 0.073072-0.240110I$ $a=\quad 0.93092-4.47877I$ $b=\quad 0.150658+0.543482I$	$4.23898+1.90477I$	$15.0152-0.2418I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{44}-13u^{43}+\cdots+11u+1)$ $\cdot(u^{170}+8u^{169}+\cdots-9499014u+769055)$
c_2	$(u^{44}+2u^{43}+\cdots+6u+1)(u^{170}-9u^{169}+\cdots-9312096u+1274848)$
c_3	$(u^{44}+18u^{42}+\cdots-6u+1)$ $\cdot(u^{170}+u^{169}+\cdots-1786148797u-5447052019)$
c_4	$(u^{44}+13u^{43}+\cdots-11u+1)$ $\cdot(u^{170}+8u^{169}+\cdots-9499014u+769055)$
c_5	$(u^{44}+6u^{43}+\cdots+6u+1)(u^{170}+13u^{169}+\cdots+2237637u+300169)$
c_6	$(u^{44}+12u^{42}+\cdots+6u+1)(u^{170}-5u^{169}+\cdots-29u-1)$
c_7	$(u^{44}+13u^{42}+\cdots+14u+3)$ $\cdot(u^{170}+3u^{169}+\cdots-241024421u+11830141)$
c_8	$(u^{44}-2u^{43}+\cdots+7u+3)(u^{170}+u^{169}+\cdots+71528u-163159)$
c_9	$(u^{44}+2u^{43}+\cdots-45u+47)$ $\cdot(u^{170}-3u^{169}+\cdots-10173208u-3146921)$
c_{10}	$(u^{44}+12u^{42}+\cdots-6u+1)(u^{170}-5u^{169}+\cdots-29u-1)$
c_{11}	$(u^{44}+3u^{43}+\cdots-14u+1)$ $\cdot(u^{170}+12u^{169}+\cdots-16844439u+2548801)$
c_{12}	$(u^{44}+2u^{43}+\cdots-7u+3)(u^{170}+u^{169}+\cdots+71528u-163159)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_4	$(y^{44}+39y^{43}+\cdots-201y+1)$ $\cdot(y^{170}+124y^{169}+\cdots-57608321480486y+591445593025)$
c_2	$(y^{44}+8y^{43}+\cdots+56y+1)$ $\cdot(y^{170}+41y^{169}+\cdots+85496782077440y+1625237423104)$
c_3	$(y^{44}+36y^{43}+\cdots+38y+1)$ $\cdot(y^{170}+89y^{169}+\cdots+1.51\times10^{21}y+2.97\times10^{19})$
c_5	$(y^{44}+6y^{43}+\cdots+8y+1)$ $\cdot(y^{170}+43y^{169}+\cdots+3115277640751y+90101428561)$
c_6, c_{10}	$(y^{44}+24y^{43}+\cdots+48y+1)(y^{170}+113y^{169}+\cdots+167y+1)$
c_7	$(y^{44}+26y^{43}+\cdots+272y+9)$ $\cdot(y^{170}+63y^{169}+\cdots-8243419434057653y+139952236079881)$
c_8, c_{12}	$(y^{44}-46y^{43}+\cdots-157y+9)$ $\cdot(y^{170}-133y^{169}+\cdots-836359475222y+26620859281)$
c_9	$(y^{44}+4y^{43}+\cdots-2589y+2209)$ $\cdot(y^{170}-35y^{169}+\cdots+110086202897966y+9903111780241)$
c_{11}	$(y^{44}+11y^{43}+\cdots-32y+1)$ $\cdot(y^{170}+56y^{169}+\cdots+3101150912137203y+6496386537601)$