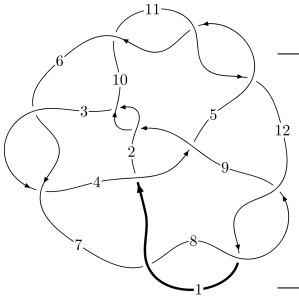
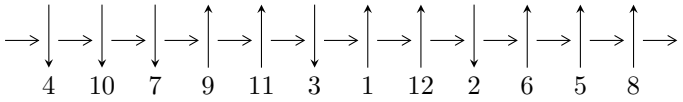
$12a_{1171}$ $(K12a_{1171})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 1.19554 \times 10^{254} u^{79} - 4.06335 \times 10^{253} u^{78} + \cdots + 6.78866 \times 10^{255} b - 1.22944 \times 10^{255}, \\ & - 1.22177 \times 10^{256} u^{79} + 3.50873 \times 10^{254} u^{78} + \cdots + 4.95572 \times 10^{257} a - 3.21558 \times 10^{258}, \\ & u^{80} - 42 u^{78} + \cdots + 695 u + 73 \rangle \\ I_2^u = \langle & -8933 u^{22} + 72416 u^{21} + \cdots + 26063 b - 18756, \\ & - 325452679 u^{22} + 1996854611 u^{21} + \cdots + 187627537 a - 428118748,\ u^{23} - 5 u^{22} + \cdots - 2 u + 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 103 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. $\boldsymbol{I_1^u = \langle 1.20 \times 10^{254} u^{79} - 4.06 \times 10^{253} u^{78} + \cdots + 6.79 \times 10^{255} b - 1.23 \times 10^{255},\ -1.22 \times 10^{256} u^{79} + 3.51 \times 10^{254} u^{78} + \cdots + 4.96 \times 10^{257} a - 3.22 \times 10^{258},\ u^{80} - 42 u^{78} + \cdots + 695 u + 73 \rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

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

$$a_4 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.0246538 u^{79} - 0.000708015 u^{78} + \cdots + 10.2302 u + 6.48862 \\ -0.0176108 u^{79} + 0.00598549 u^{78} + \cdots - 8.43907 u + 0.181103 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.00704298 u^{79} + 0.00527747 u^{78} + \cdots + 1.79116 u + 6.66973 \\ -0.0176108 u^{79} + 0.00598549 u^{78} + \cdots - 8.43907 u + 0.181103 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.0318869 u^{79} + 0.00250679 u^{78} + \cdots + 10.8269 u - 5.17085 \\ 0.0182869 u^{79} - 0.00815417 u^{78} + \cdots + 21.5937 u + 1.26735 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.0126502 u^{79} - 0.0195104 u^{78} + \cdots + 18.8202 u - 4.43663 \\ 0.0286845 u^{79} - 0.0261087 u^{78} + \cdots + 27.4980 u + 2.14039 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.0000878937 u^{79} + 0.000822250 u^{78} + \cdots + 46.4529 u + 8.89458 \\ 0.0174489 u^{79} - 0.0174646 u^{78} + \cdots - 1.86747 u - 0.633244 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.0321181 u^{79} + 0.0194870 u^{78} + \cdots + 11.6089 u + 8.55274 \\ -0.00592250 u^{79} + 0.0298193 u^{78} + \cdots + 1.11590 u - 0.766760 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.00731128 u^{79} + 0.00275510 u^{78} + \cdots + 52.6202 u + 4.29409 \\ 0.00670229 u^{79} - 0.00572929 u^{78} + \cdots + 1.06723 u + 0.396634 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.00733362 u^{79} - 0.0104153 u^{78} + \cdots - 55.9268 u - 4.94251 \\ -0.00542082 u^{79} + 0.00217554 u^{78} + \cdots + 32.0132 u + 3.53866 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.0629654 u^{79} - 0.0984874 u^{78} + \cdots - 37.1337 u - 2.30507$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{80} - 11u^{79} + \cdots - 1319100u + 193025$
c_2, c_9	$u^{80} - u^{79} + \cdots + 37u + 1$
c_3, c_6	$u^{80} - 42u^{78} + \cdots + 695u + 73$
c_4	$u^{80} + 3u^{79} + \cdots + 9720133u + 1148717$
c_5, c_{10}, c_{11}	$u^{80} + u^{79} + \cdots + 1161u + 173$
c_7, c_8, c_{12}	$u^{80} - 2u^{79} + \cdots + 27u + 19$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{80} - 45y^{79} + \cdots - 611400686100y + 37258650625$
c_2, c_9	$y^{80} - 69y^{79} + \cdots + 21y + 1$
c_3, c_6	$y^{80} - 84y^{79} + \cdots + 146819y + 5329$
c_4	$y^{80} + 51y^{79} + \cdots + 26316054060919y + 1319550746089$
c_5, c_{10}, c_{11}	$y^{80} + 95y^{79} + \cdots + 207349y + 29929$
c_7, c_8, c_{12}	$y^{80} + 90y^{79} + \cdots + 11507y + 361$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.933025+0.257843I$ $a=\ 0.0297219+0.0412596I$ $b=\ 0.279840-0.440086I$	$-1.57667+1.00823I$	0
$u=-0.933025-0.257843I$ $a=\ 0.0297219-0.0412596I$ $b=\ 0.279840+0.440086I$	$-1.57667-1.00823I$	0
$u=-0.899699+0.132536I$ $a=-1.049370+0.742428I$ $b=-0.022659+1.203980I$	$-4.83425+2.94657I$	0
$u=-0.899699-0.132536I$ $a=-1.049370-0.742428I$ $b=-0.022659-1.203980I$	$-4.83425-2.94657I$	0
$u=\ 1.110620+0.130479I$ $a=-0.231583-0.901934I$ $b=\ 0.181838-0.539644I$	$-1.72864-2.75147I$	0
$u=\ 1.110620-0.130479I$ $a=-0.231583+0.901934I$ $b=\ 0.181838+0.539644I$	$-1.72864+2.75147I$	0
$u=\ 0.156021+0.835387I$ $a=\ 0.54574-1.58978I$ $b=\ 0.03618+1.58404I$	$-8.84658-0.73985I$	$-4.45300+0.I$
$u=\ 0.156021-0.835387I$ $a=\ 0.54574+1.58978I$ $b=\ 0.03618-1.58404I$	$-8.84658+0.73985I$	$-4.45300+0.I$
$u=-0.238929+0.796640I$ $a=-0.710211-1.099990I$ $b=\ 0.317628+0.536262I$	$-1.58821+3.69119I$	$0.-9.71616I$
$u=-0.238929-0.796640I$ $a=-0.710211+1.099990I$ $b=\ 0.317628-0.536262I$	$-1.58821-3.69119I$	$0.+9.71616I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.107313+0.798256I$ $a=-0.757440+0.103976I$ $b=\ \ 0.647442+0.471902I$	$-4.82509+2.15434I$	$0.-3.25418I$
$u=-0.107313-0.798256I$ $a=-0.757440-0.103976I$ $b=\ \ 0.647442-0.471902I$	$-4.82509-2.15434I$	$0.+3.25418I$
$u=-0.377538+1.138370I$ $a=\ \ 0.530912+0.824510I$ $b=-0.532890-0.584575I$	$-8.15329+5.47182I$	0
$u=-0.377538-1.138370I$ $a=\ \ 0.530912-0.824510I$ $b=-0.532890+0.584575I$	$-8.15329-5.47182I$	0
$u=\ \ 0.296833+0.728763I$ $a=-0.627261-0.274114I$ $b=\ \ 0.22622-1.47408I$	$-11.11080-5.32394I$	$-1.60578+2.44564I$
$u=\ \ 0.296833-0.728763I$ $a=-0.627261+0.274114I$ $b=\ \ 0.22622+1.47408I$	$-11.11080+5.32394I$	$-1.60578-2.44564I$
$u=-0.596798+0.368285I$ $a=-0.737061-1.015400I$ $b=\ \ 0.147050+1.051450I$	$-3.90294-0.95979I$	$-6.90709-1.74186I$
$u=-0.596798-0.368285I$ $a=-0.737061+1.015400I$ $b=\ \ 0.147050-1.051450I$	$-3.90294+0.95979I$	$-6.90709+1.74186I$
$u=-1.222420+0.458831I$ $a=\ \ 0.0443970-0.0548076I$ $b=-0.632083+0.462534I$	$-8.11023+2.43176I$	0
$u=-1.222420-0.458831I$ $a=\ \ 0.0443970+0.0548076I$ $b=-0.632083-0.462534I$	$-8.11023-2.43176I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.279500 + 0.360515I$ $a = 0.291837 + 0.607605I$ $b = -0.474926 + 0.715944I$	$-9.11742 - 6.23645I$	0
$u = 1.279500 - 0.360515I$ $a = 0.291837 - 0.607605I$ $b = -0.474926 - 0.715944I$	$-9.11742 + 6.23645I$	0
$u = -0.538435 + 0.378124I$ $a = 1.121120 + 0.169264I$ $b = -0.098631 - 0.827664I$	$-0.95937 + 1.55975I$	$2.01700 - 4.77080I$
$u = -0.538435 - 0.378124I$ $a = 1.121120 - 0.169264I$ $b = -0.098631 + 0.827664I$	$-0.95937 - 1.55975I$	$2.01700 + 4.77080I$
$u = 0.389677 + 1.292350I$ $a = -0.431269 + 0.939915I$ $b = 0.07554 - 1.56927I$	$-8.80812 - 5.04260I$	0
$u = 0.389677 - 1.292350I$ $a = -0.431269 - 0.939915I$ $b = 0.07554 + 1.56927I$	$-8.80812 + 5.04260I$	0
$u = -1.360730 + 0.003685I$ $a = 0.981515 + 0.029454I$ $b = -1.030470 - 0.448078I$	$-5.79631 - 1.42222I$	0
$u = -1.360730 - 0.003685I$ $a = 0.981515 - 0.029454I$ $b = -1.030470 + 0.448078I$	$-5.79631 + 1.42222I$	0
$u = 1.380500 + 0.156477I$ $a = 0.028479 + 0.503486I$ $b = 0.07032 + 1.53121I$	$-8.24917 + 0.23612I$	0
$u = 1.380500 - 0.156477I$ $a = 0.028479 - 0.503486I$ $b = 0.07032 - 1.53121I$	$-8.24917 - 0.23612I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.387760 + 0.076721I$ $a = -1.053390 - 0.203653I$ $b = 0.491717 - 0.666089I$	$-6.41963 - 2.52717I$	0
$u = 1.387760 - 0.076721I$ $a = -1.053390 + 0.203653I$ $b = 0.491717 + 0.666089I$	$-6.41963 + 2.52717I$	0
$u = 1.389780 + 0.140595I$ $a = -1.021750 - 0.096001I$ $b = 0.44598 - 1.81464I$	$19.1249 - 4.0847I$	0
$u = 1.389780 - 0.140595I$ $a = -1.021750 + 0.096001I$ $b = 0.44598 + 1.81464I$	$19.1249 + 4.0847I$	0
$u = -1.395520 + 0.114360I$ $a = -0.974540 - 0.048957I$ $b = 1.35472 - 0.51672I$	$-12.74490 + 2.98456I$	0
$u = -1.395520 - 0.114360I$ $a = -0.974540 + 0.048957I$ $b = 1.35472 + 0.51672I$	$-12.74490 - 2.98456I$	0
$u = -1.42165 + 0.06964I$ $a = -0.156336 + 1.118770I$ $b = 0.04076 + 1.58926I$	$-9.17850 + 3.49089I$	0
$u = -1.42165 - 0.06964I$ $a = -0.156336 - 1.118770I$ $b = 0.04076 - 1.58926I$	$-9.17850 - 3.49089I$	0
$u = 0.568595 + 0.041815I$ $a = -1.24087 - 1.09976I$ $b = 0.251287 - 0.048586I$	$-0.93338 - 2.24071I$	$7.29920 + 5.10530I$
$u = 0.568595 - 0.041815I$ $a = -1.24087 + 1.09976I$ $b = 0.251287 + 0.048586I$	$-0.93338 + 2.24071I$	$7.29920 - 5.10530I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.42349 + 0.25160I$ $a = 1.010970 + 0.049425I$ $b = -0.768916 + 0.774349I$	$-6.98740 - 7.32316I$	0
$u = 1.42349 - 0.25160I$ $a = 1.010970 - 0.049425I$ $b = -0.768916 - 0.774349I$	$-6.98740 + 7.32316I$	0
$u = 1.40704 + 0.36853I$ $a = 0.969961 - 0.058572I$ $b = -0.31592 + 1.66165I$	$-12.91650 - 3.79429I$	0
$u = 1.40704 - 0.36853I$ $a = 0.969961 + 0.058572I$ $b = -0.31592 - 1.66165I$	$-12.91650 + 3.79429I$	0
$u = -1.45273 + 0.14202I$ $a = 1.122970 - 0.440056I$ $b = -0.04410 - 1.63069I$	$18.3007 - 0.5410I$	0
$u = -1.45273 - 0.14202I$ $a = 1.122970 + 0.440056I$ $b = -0.04410 + 1.63069I$	$18.3007 + 0.5410I$	0
$u = -1.46987 + 0.27140I$ $a = -0.851510 - 0.167573I$ $b = 0.509179 + 0.438607I$	$-5.64665 + 1.00939I$	0
$u = -1.46987 - 0.27140I$ $a = -0.851510 + 0.167573I$ $b = 0.509179 - 0.438607I$	$-5.64665 - 1.00939I$	0
$u = -1.46286 + 0.30961I$ $a = -1.193090 + 0.207085I$ $b = 0.14007 + 1.61352I$	$-14.2338 + 4.8692I$	0
$u = -1.46286 - 0.30961I$ $a = -1.193090 - 0.207085I$ $b = 0.14007 - 1.61352I$	$-14.2338 - 4.8692I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.49177 + 0.17819I$ $a = 0.880021 - 0.391812I$ $b = -0.145201 - 0.700742I$	$-12.98350 - 1.27674I$	0
$u = 1.49177 - 0.17819I$ $a = 0.880021 + 0.391812I$ $b = -0.145201 + 0.700742I$	$-12.98350 + 1.27674I$	0
$u = -1.49301 + 0.20563I$ $a = 0.271872 - 0.890511I$ $b = -0.12925 - 1.62695I$	$-17.1793 + 8.4656I$	0
$u = -1.49301 - 0.20563I$ $a = 0.271872 + 0.890511I$ $b = -0.12925 + 1.62695I$	$-17.1793 - 8.4656I$	0
$u = 1.50221 + 0.34705I$ $a = -0.941368 + 0.004617I$ $b = 0.960337 - 0.913714I$	$-14.2323 - 10.4782I$	0
$u = 1.50221 - 0.34705I$ $a = -0.941368 - 0.004617I$ $b = 0.960337 + 0.913714I$	$-14.2323 + 10.4782I$	0
$u = 0.155519 + 0.409623I$ $a = 1.175290 - 0.037639I$ $b = -0.427697 - 0.189345I$	$0.861772 + 0.593079I$	$8.14040 - 3.49994I$
$u = 0.155519 - 0.409623I$ $a = 1.175290 + 0.037639I$ $b = -0.427697 + 0.189345I$	$0.861772 - 0.593079I$	$8.14040 + 3.49994I$
$u = 1.53473 + 0.32845I$ $a = -0.040041 - 0.446319I$ $b = -0.15983 - 1.61623I$	$-15.4607 + 0.5021I$	0
$u = 1.53473 - 0.32845I$ $a = -0.040041 + 0.446319I$ $b = -0.15983 + 1.61623I$	$-15.4607 - 0.5021I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.018150 + 0.396081I$ $a = 1.04718 - 2.72969I$ $b = -0.711168 - 0.566289I$	$-7.94238 - 1.27246I$	$-5.21046 - 0.09579I$
$u = 0.018150 - 0.396081I$ $a = 1.04718 + 2.72969I$ $b = -0.711168 + 0.566289I$	$-7.94238 + 1.27246I$	$-5.21046 + 0.09579I$
$u = -1.56074 + 0.43665I$ $a = 1.059430 - 0.062610I$ $b = -0.22521 - 1.64176I$	$-15.0846 + 11.0453I$	0
$u = -1.56074 - 0.43665I$ $a = 1.059430 + 0.062610I$ $b = -0.22521 + 1.64176I$	$-15.0846 - 11.0453I$	0
$u = 0.080693 + 0.331904I$ $a = -1.63830 + 3.85989I$ $b = -0.19093 - 1.67778I$	$-15.8360 + 2.3469I$	$-8.33417 - 0.26186I$
$u = 0.080693 - 0.331904I$ $a = -1.63830 - 3.85989I$ $b = -0.19093 + 1.67778I$	$-15.8360 - 2.3469I$	$-8.33417 + 0.26186I$
$u = 0.095857 + 0.299058I$ $a = 1.85934 + 0.46152I$ $b = -0.092790 + 1.367820I$	$-4.02985 - 2.33762I$	$2.59507 + 2.31518I$
$u = 0.095857 - 0.299058I$ $a = 1.85934 - 0.46152I$ $b = -0.092790 - 1.367820I$	$-4.02985 + 2.33762I$	$2.59507 - 2.31518I$
$u = -1.68949 + 0.48697I$ $a = -0.937193 + 0.047303I$ $b = 0.28129 + 1.70007I$	$16.5778 + 15.2060I$	0
$u = -1.68949 - 0.48697I$ $a = -0.937193 - 0.047303I$ $b = 0.28129 - 1.70007I$	$16.5778 - 15.2060I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.63666 + 1.69281I$ $a = 0.360260 - 0.664641I$ $b = -0.14249 + 1.58434I$	$-15.5302 - 7.8644I$	0
$u = 0.63666 - 1.69281I$ $a = 0.360260 + 0.664641I$ $b = -0.14249 - 1.58434I$	$-15.5302 + 7.8644I$	0
$u = -1.75601 + 0.59770I$ $a = 0.662793 + 0.226410I$ $b = -0.139860 - 0.490757I$	$-12.23370 + 2.28182I$	0
$u = -1.75601 - 0.59770I$ $a = 0.662793 - 0.226410I$ $b = -0.139860 + 0.490757I$	$-12.23370 - 2.28182I$	0
$u = 1.71422 + 0.74113I$ $a = -0.718767 + 0.152487I$ $b = 0.13592 - 1.55702I$	$-12.48250 - 3.26508I$	0
$u = 1.71422 - 0.74113I$ $a = -0.718767 - 0.152487I$ $b = 0.13592 + 1.55702I$	$-12.48250 + 3.26508I$	0
$u = -0.0918845 + 0.0886132I$ $a = 7.50598 + 2.95587I$ $b = 0.236793 - 0.529885I$	$-1.43444 + 1.51364I$	$0.75693 + 3.72542I$
$u = -0.0918845 - 0.0886132I$ $a = 7.50598 - 2.95587I$ $b = 0.236793 + 0.529885I$	$-1.43444 - 1.51364I$	$0.75693 - 3.72542I$
$u = 2.04902 + 0.91722I$ $a = 0.585507 - 0.130441I$ $b = -0.04510 + 1.57018I$	$-19.4247 - 2.9683I$	0
$u = 2.04902 - 0.91722I$ $a = 0.585507 + 0.130441I$ $b = -0.04510 - 1.57018I$	$-19.4247 + 2.9683I$	0

II. $\boldsymbol{I_2^u = \langle -8933u^{22} + 72416u^{21} + \cdots + 26063b - 18756,\ -3.25 \times 10^8 u^{22} + 2.00 \times 10^9 u^{21} + \cdots + 1.88 \times 10^8 a - 4.28 \times 10^8,\ u^{23} - 5u^{22} + \cdots - 2u + 1\rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

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

$$a_4 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 1.73457u^{22} - 10.6427u^{21} + \cdots + 15.7223u + 2.28175 \\ 0.342746u^{22} - 2.77850u^{21} + \cdots - 6.43487u + 0.719641 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 2.07731u^{22} - 13.4212u^{21} + \cdots + 9.28739u + 3.00139 \\ 0.342746u^{22} - 2.77850u^{21} + \cdots - 6.43487u + 0.719641 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 1.56835u^{22} - 8.77970u^{21} + \cdots - 21.4092u - 1.02035 \\ 0.844437u^{22} - 3.99394u^{21} + \cdots + 4.08247u + 0.437912 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 2.32346u^{22} - 12.7898u^{21} + \cdots - 22.9240u - 0.404159 \\ 0.773141u^{22} - 3.43217u^{21} + \cdots + 4.37302u + 0.0562597 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.437912u^{22} + 3.03400u^{21} + \cdots - 4.03499u + 3.95829 \\ -u - 1 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 3.37733u^{22} - 17.7045u^{21} + \cdots - 13.5909u + 2.79696 \\ 1.06477u^{22} - 4.72597u^{21} + \cdots - 1.40513u + 0.342746 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.757435u^{22} - 5.67549u^{21} + \cdots + 11.9765u - 2.55321 \\ -0.344110u^{22} + 1.85506u^{21} + \cdots + 1.66476u - 0.242129 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.904547u^{22} - 5.79853u^{21} + \cdots + 16.1850u - 1.78107 \\ -0.595303u^{22} + 3.54364u^{21} + \cdots + 1.40322u - 0.225478 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{516876394}{187627537}u^{22} - \frac{2115207184}{187627537}u^{21} + \cdots - \frac{1488236262}{187627537}u - \frac{1412792583}{187627537}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{23} - 4u^{22} + \cdots - 7u + 1$
c_2	$u^{23} - 8u^{21} + \cdots - 5u^2 + 1$
c_3	$u^{23} + 5u^{22} + \cdots - 2u - 1$
c_4	$u^{23} + 4u^{21} + \cdots - 6u - 1$
c_5	$u^{23} + 14u^{21} + \cdots - 13u^2 - 1$
c_6	$u^{23} - 5u^{22} + \cdots - 2u + 1$
c_7, c_8	$u^{23} - u^{22} + \cdots + 2u^2 - 1$
c_9	$u^{23} - 8u^{21} + \cdots + 5u^2 - 1$
c_{10}, c_{11}	$u^{23} + 14u^{21} + \cdots + 13u^2 + 1$
c_{12}	$u^{23} + u^{22} + \cdots - 2u^2 + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{23} - 8y^{22} + \cdots + 11y - 1$
c_2, c_9	$y^{23} - 16y^{22} + \cdots + 10y - 1$
c_3, c_6	$y^{23} - 27y^{22} + \cdots - 36y - 1$
c_4	$y^{23} + 8y^{22} + \cdots - 32y - 1$
c_5, c_{10}, c_{11}	$y^{23} + 28y^{22} + \cdots - 26y - 1$
c_7, c_8, c_{12}	$y^{23} + 27y^{22} + \cdots + 4y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.757600 + 0.580515I$ $a = 0.593505 - 0.234801I$ $b = 0.216088 - 1.343240I$	$-12.22340 - 5.69838I$	$-9.25274 + 4.18072I$
$u = 0.757600 - 0.580515I$ $a = 0.593505 + 0.234801I$ $b = 0.216088 + 1.343240I$	$-12.22340 + 5.69838I$	$-9.25274 - 4.18072I$
$u = -0.901939 + 0.010790I$ $a = -0.578634 + 0.851146I$ $b = -0.017203 + 0.313619I$	$-1.46016 + 2.03887I$	$-5.32019 + 0.28073I$
$u = -0.901939 - 0.010790I$ $a = -0.578634 - 0.851146I$ $b = -0.017203 - 0.313619I$	$-1.46016 - 2.03887I$	$-5.32019 - 0.28073I$
$u = -1.037860 + 0.492778I$ $a = 0.707359 + 0.115829I$ $b = 0.515794 - 0.477688I$	$-8.90749 + 3.00064I$	$-9.05512 - 3.71283I$
$u = -1.037860 - 0.492778I$ $a = 0.707359 - 0.115829I$ $b = 0.515794 + 0.477688I$	$-8.90749 - 3.00064I$	$-9.05512 + 3.71283I$
$u = 0.691752 + 0.160792I$ $a = -0.536177 - 0.443693I$ $b = -0.061742 + 1.302140I$	$-4.78747 - 2.56115I$	$-8.34774 + 4.70612I$
$u = 0.691752 - 0.160792I$ $a = -0.536177 + 0.443693I$ $b = -0.061742 - 1.302140I$	$-4.78747 + 2.56115I$	$-8.34774 - 4.70612I$
$u = -0.655673 + 0.212810I$ $a = -1.321680 + 0.225264I$ $b = -0.173862 + 0.612009I$	$-1.83707 + 1.99638I$	$-8.40872 - 6.71639I$
$u = -0.655673 - 0.212810I$ $a = -1.321680 - 0.225264I$ $b = -0.173862 - 0.612009I$	$-1.83707 - 1.99638I$	$-8.40872 + 6.71639I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \ 1.344240 + 0.025801I$ $a = -0.361149 - 0.831706I$ $b = \ 0.00843 - 1.53111I$	$-7.95471 - 2.08579I$	$-5.56064 + 2.41042I$
$u = \ 1.344240 - 0.025801I$ $a = -0.361149 + 0.831706I$ $b = \ 0.00843 + 1.53111I$	$-7.95471 + 2.08579I$	$-5.56064 - 2.41042I$
$u = -1.45736$ $a = -0.923005$ $b = \ 0.676281$	-5.64416	-6.21070
$u = -1.50060 + 0.27712I$ $a = \ 0.805496 + 0.225842I$ $b = -0.732389 + 0.189191I$	$-10.92140 + 1.50372I$	$-5.21005 + 0.05843I$
$u = -1.50060 - 0.27712I$ $a = \ 0.805496 - 0.225842I$ $b = -0.732389 - 0.189191I$	$-10.92140 - 1.50372I$	$-5.21005 - 0.05843I$
$u = \ 1.31555 + 0.81648I$ $a = \ 0.810501 - 0.429665I$ $b = -0.26432 + 1.54448I$	$-16.0466 - 5.3224I$	$-9.22028 + 3.35316I$
$u = \ 1.31555 - 0.81648I$ $a = \ 0.810501 + 0.429665I$ $b = -0.26432 - 1.54448I$	$-16.0466 + 5.3224I$	$-9.22028 - 3.35316I$
$u = \ 1.46966 + 0.55634I$ $a = -0.904069 + 0.122289I$ $b = \ 0.17591 - 1.58133I$	$-11.72400 - 3.23681I$	$-1.85835 + 0.78114I$
$u = \ 1.46966 - 0.55634I$ $a = -0.904069 - 0.122289I$ $b = \ 0.17591 + 1.58133I$	$-11.72400 + 3.23681I$	$-1.85835 - 0.78114I$
$u = \ 1.72260 + 0.33154I$ $a = \ 0.681003 + 0.099571I$ $b = -0.10028 + 1.65308I$	$-18.2680 - 1.7097I$	$-8.26819 + 0.20200I$

	Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$1.72260-0.33154I$		
$a=$	$0.681003-0.099571I$	$-18.2680+1.7097I$	$-8.26819-0.20200I$
$b=$	$-0.10028-1.65308I$		
$u=$	$0.023342+0.193953I$		
$a=$	$2.06534+5.01376I$	$-3.38863+2.01739I$	$-3.39262-3.26924I$
$b=$	$0.095440-1.016100I$		
$u=$	$0.023342-0.193953I$		
$a=$	$2.06534-5.01376I$	$-3.38863-2.01739I$	$-3.39262+3.26924I$
$b=$	$0.095440+1.016100I$		

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{23}-4u^{22}+\cdots-7u+1)(u^{80}-11u^{79}+\cdots-1319100u+193025)$
c_2	$(u^{23}-8u^{21}+\cdots-5u^2+1)(u^{80}-u^{79}+\cdots+37u+1)$
c_3	$(u^{23}+5u^{22}+\cdots-2u-1)(u^{80}-42u^{78}+\cdots+695u+73)$
c_4	$(u^{23}+4u^{21}+\cdots-6u-1)(u^{80}+3u^{79}+\cdots+9720133u+1148717)$
c_5	$(u^{23}+14u^{21}+\cdots-13u^2-1)(u^{80}+u^{79}+\cdots+1161u+173)$
c_6	$(u^{23}-5u^{22}+\cdots-2u+1)(u^{80}-42u^{78}+\cdots+695u+73)$
c_7, c_8	$(u^{23}-u^{22}+\cdots+2u^2-1)(u^{80}-2u^{79}+\cdots+27u+19)$
c_9	$(u^{23}-8u^{21}+\cdots+5u^2-1)(u^{80}-u^{79}+\cdots+37u+1)$
c_{10}, c_{11}	$(u^{23}+14u^{21}+\cdots+13u^2+1)(u^{80}+u^{79}+\cdots+1161u+173)$
c_{12}	$(u^{23}+u^{22}+\cdots-2u^2+1)(u^{80}-2u^{79}+\cdots+27u+19)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{23}-8y^{22}+\cdots+11y-1)$ $\cdot(y^{80}-45y^{79}+\cdots-611400686100y+37258650625)$
c_2, c_9	$(y^{23}-16y^{22}+\cdots+10y-1)(y^{80}-69y^{79}+\cdots+21y+1)$
c_3, c_6	$(y^{23}-27y^{22}+\cdots-36y-1)(y^{80}-84y^{79}+\cdots+146819y+5329)$
c_4	$(y^{23}+8y^{22}+\cdots-32y-1)$ $\cdot(y^{80}+51y^{79}+\cdots+26316054060919y+1319550746089)$
c_5, c_{10}, c_{11}	$(y^{23}+28y^{22}+\cdots-26y-1)(y^{80}+95y^{79}+\cdots+207349y+29929)$
c_7, c_8, c_{12}	$(y^{23}+27y^{22}+\cdots+4y-1)(y^{80}+90y^{79}+\cdots+11507y+361)$