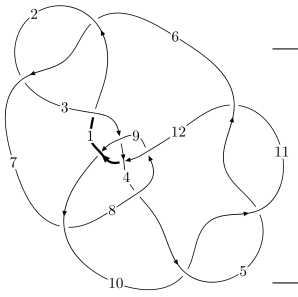
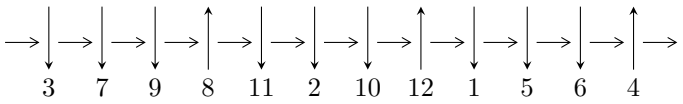
$12a_{0558}$ $(K12a_{0558})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u &= \langle 1.96556 \times 10^{1272} u^{150} - 4.61903 \times 10^{1272} u^{149} + \cdots + 1.68074 \times 10^{1275} b - 1.40593 \times 10^{1275}, \\
&\quad 5.76019 \times 10^{1273} u^{150} + 2.86320 \times 10^{1274} u^{149} + \cdots + 7.54653 \times 10^{1277} a - 2.77801 \times 10^{1278}, \\
&\quad u^{151} - 2u^{150} + \cdots + 2162u - 449 \rangle \\
I_2^u &= \langle -2.90007 \times 10^{40} u^{31} + 3.42238 \times 10^{40} u^{30} + \cdots + 1.17408 \times 10^{41} b + 1.01177 \times 10^{41}, \\
&\quad 3.04606 \times 10^{40} u^{31} - 3.49551 \times 10^{40} u^{30} + \cdots + 1.17408 \times 10^{41} a - 9.77906 \times 10^{40},\ u^{32} - u^{31} + \cdots - 3u - 1 \rangle \\
I_3^u &= \langle u^2 + b + u,\ -u^2 + a - u + 1,\ u^3 + 2u^2 + u + 1 \rangle
\end{aligned}$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 186 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. $\boldsymbol{I_1^u = \langle 1.97 \times 10^{1272} u^{150} - 4.62 \times 10^{1272} u^{149} + \cdots + 1.68 \times 10^{1275} b - 1.41 \times 10^{1275},\ 5.76 \times 10^{1273} u^{150} + 2.86 \times 10^{1274} u^{149} + \cdots + 7.55 \times 10^{1277} a - 2.78 \times 10^{1278},\ u^{151} - 2u^{150} + \cdots + 2162u - 449 \rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.0000763290u^{150} - 0.000379406u^{149} + \cdots - 31.9809u + 3.68117 \\ -0.00116946u^{150} + 0.00274821u^{149} + \cdots + 7.24694u + 0.836496 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.00168220u^{150} + 0.00590328u^{149} + \cdots + 65.0155u - 6.42701 \\ -6.64115 \times 10^{-6} u^{150} - 0.000367296u^{149} + \cdots - 19.2980u + 0.0982350 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.00168885u^{150} + 0.00553599u^{149} + \cdots + 45.7175u - 6.32878 \\ -6.64115 \times 10^{-6} u^{150} - 0.000367296u^{149} + \cdots - 19.2980u + 0.0982350 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.0117674u^{150} - 0.0223322u^{149} + \cdots + 43.3172u - 11.8273 \\ -0.00133968u^{150} + 0.00299390u^{149} + \cdots + 2.76487u + 0.424849 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.00568194u^{150} - 0.0122842u^{149} + \cdots + 31.1122u - 0.393206 \\ -0.00115135u^{150} + 0.00292564u^{149} + \cdots - 14.9915u - 1.56282 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.00168228u^{150} + 0.00557349u^{149} + \cdots + 59.5909u - 5.45794 \\ 0.0000690792u^{150} - 0.000523140u^{149} + \cdots - 19.4045u + 0.120968 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.0105884u^{150} - 0.0198923u^{149} + \cdots + 43.1103u - 12.0399 \\ -0.00148726u^{150} + 0.00330437u^{149} + \cdots + 4.10259u + 0.904460 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.00860053u^{150} - 0.0223541u^{149} + \cdots - 59.6672u + 9.81945 \\ 0.000393479u^{150} - 0.000364436u^{149} + \cdots - 2.69319u - 2.04299 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.00385075u^{150} + 0.0101935u^{149} + \cdots + 21.0110u - 8.58046 \\ 0.000913499u^{150} - 0.00139895u^{149} + \cdots + 25.8880u - 0.0780800 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.0168044u^{150} - 0.0359252u^{149} + \cdots + 562.956u + 69.1771$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{151} + 66u^{150} + \cdots + 185503u + 3481$
c_2, c_6	$u^{151} - 2u^{150} + \cdots + 255u - 59$
c_3	$u^{151} - 2u^{150} + \cdots + 2162u - 449$
c_4	$u^{151} - 6u^{150} + \cdots - 5051302u - 765269$
c_5, c_{10}, c_{11}	$u^{151} - u^{150} + \cdots + 122u + 11$
c_7	$u^{151} + 7u^{150} + \cdots + 2354104u + 756296$
c_8	$u^{151} + 4u^{150} + \cdots - 5327u + 391$
c_9	$u^{151} + 3u^{150} + \cdots - u + 1$
c_{12}	$u^{151} + 14u^{150} + \cdots + 45u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{151} + 42y^{150} + \cdots - 823270257y - 12117361$
c_2, c_6	$y^{151} - 66y^{150} + \cdots + 185503y - 3481$
c_3	$y^{151} + 22y^{150} + \cdots + 18108324y - 201601$
c_4	$y^{151} + 42y^{150} + \cdots - 16103090955074y - 585636642361$
c_5, c_{10}, c_{11}	$y^{151} - 147y^{150} + \cdots + 43638y - 121$
c_7	$y^{151} - 35y^{150} + \cdots + 10638457160160y - 571983639616$
c_8	$y^{151} + 6y^{150} + \cdots - 424913y - 152881$
c_9	$y^{151} + 17y^{150} + \cdots + 133y - 1$
c_{12}	$y^{151} + 6y^{150} + \cdots + 293y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.039981+1.008940I$ $a=-0.563623+1.213530I$ $b=\ \ 0.801162-0.706079I$	$2.47108+2.65288I$	0
$u=-0.039981-1.008940I$ $a=-0.563623-1.213530I$ $b=\ \ 0.801162+0.706079I$	$2.47108-2.65288I$	0
$u=\ \ 0.703513+0.695907I$ $a=-0.618455+0.040468I$ $b=-1.177490+0.116883I$	$-4.41545-2.22036I$	0
$u=\ \ 0.703513-0.695907I$ $a=-0.618455-0.040468I$ $b=-1.177490-0.116883I$	$-4.41545+2.22036I$	0
$u=\ \ 0.939145+0.409369I$ $a=\ \ 0.0896863+0.0368558I$ $b=\ \ 0.515699-0.698015I$	$-6.34616-4.01409I$	0
$u=\ \ 0.939145-0.409369I$ $a=\ \ 0.0896863-0.0368558I$ $b=\ \ 0.515699+0.698015I$	$-6.34616+4.01409I$	0
$u=\ \ 0.713828+0.650377I$ $a=-0.98542+2.10443I$ $b=-0.970801-0.659759I$	$-0.55710-6.66250I$	0
$u=\ \ 0.713828-0.650377I$ $a=-0.98542-2.10443I$ $b=-0.970801+0.659759I$	$-0.55710+6.66250I$	0
$u=-0.537746+0.891491I$ $a=\ \ 0.287736+1.187750I$ $b=-0.847487-0.680236I$	$-1.241290+0.238635I$	0
$u=-0.537746-0.891491I$ $a=\ \ 0.287736-1.187750I$ $b=-0.847487+0.680236I$	$-1.241290-0.238635I$	0

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$1.001240+0.291819I$		
$a=$	$0.195006-1.234500I$	$-0.31238+2.57038I$	0
$b=$	$0.305382+0.450804I$		
$u=$	$1.001240-0.291819I$		
$a=$	$0.195006+1.234500I$	$-0.31238-2.57038I$	0
$b=$	$0.305382-0.450804I$		
$u=$	$0.884487+0.346998I$		
$a=$	$-0.187209-0.686003I$	$-8.59510+0.02221I$	0
$b=$	$1.335700+0.443505I$		
$u=$	$0.884487-0.346998I$		
$a=$	$-0.187209+0.686003I$	$-8.59510-0.02221I$	0
$b=$	$1.335700-0.443505I$		
$u=$	$0.656850+0.850604I$		
$a=$	$0.921131-0.469165I$	$-6.51533-2.97279I$	0
$b=$	$0.359459+0.262040I$		
$u=$	$0.656850-0.850604I$		
$a=$	$0.921131+0.469165I$	$-6.51533+2.97279I$	0
$b=$	$0.359459-0.262040I$		
$u=$	$0.740056+0.783206I$		
$a=$	$0.133832-0.599426I$	$-6.77489-2.11958I$	0
$b=$	$-0.138405+0.827201I$		
$u=$	$0.740056-0.783206I$		
$a=$	$0.133832+0.599426I$	$-6.77489+2.11958I$	0
$b=$	$-0.138405-0.827201I$		
$u=$	$0.684530+0.845794I$		
$a=$	$0.851637+0.866097I$	$-7.33520-4.69044I$	0
$b=$	$-0.911724+0.255229I$		
$u=$	$0.684530-0.845794I$		
$a=$	$0.851637-0.866097I$	$-7.33520+4.69044I$	0
$b=$	$-0.911724-0.255229I$		

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.874553+0.236922I$ $a=-0.063913+0.716291I$ $b=-0.998554-0.380216I$	$-1.65732-0.38865I$	0
$u=-0.874553-0.236922I$ $a=-0.063913-0.716291I$ $b=-0.998554+0.380216I$	$-1.65732+0.38865I$	0
$u=-0.414158+0.803206I$ $a=-0.19220-1.61244I$ $b=-1.184650+0.708377I$	$-4.67562+11.48670I$	0
$u=-0.414158-0.803206I$ $a=-0.19220+1.61244I$ $b=-1.184650-0.708377I$	$-4.67562-11.48670I$	0
$u=-0.633732+0.638046I$ $a=1.054430+0.057142I$ $b=-0.679572-0.679532I$	$0.30481+1.46754I$	0
$u=-0.633732-0.638046I$ $a=1.054430-0.057142I$ $b=-0.679572+0.679532I$	$0.30481-1.46754I$	0
$u=-1.065660+0.299057I$ $a=1.027770+0.819795I$ $b=1.047810-0.626072I$	$-7.88222+9.14328I$	0
$u=-1.065660-0.299057I$ $a=1.027770-0.819795I$ $b=1.047810+0.626072I$	$-7.88222-9.14328I$	0
$u=-0.054378+0.887305I$ $a=0.657565+0.023569I$ $b=-0.475200+0.545615I$	$1.95450+3.17739I$	0
$u=-0.054378-0.887305I$ $a=0.657565-0.023569I$ $b=-0.475200-0.545615I$	$1.95450-3.17739I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.486191+1.013690I$ $a=-0.358459+0.571467I$ $b=\ \ 0.270776-0.096317I$	$0.87014+3.15700I$	0
$u=-0.486191-1.013690I$ $a=-0.358459-0.571467I$ $b=\ \ 0.270776+0.096317I$	$0.87014-3.15700I$	0
$u=-0.349386+0.779593I$ $a=-1.93148+0.79619I$ $b=\ \ 0.824113+0.461791I$	$0.75907+1.21132I$	0
$u=-0.349386-0.779593I$ $a=-1.93148-0.79619I$ $b=\ \ 0.824113-0.461791I$	$0.75907-1.21132I$	0
$u=\ \ 0.510108+0.682296I$ $a=\ \ 0.332547+1.273250I$ $b=-0.402137-0.983875I$	$1.43305-4.63133I$	0
$u=\ \ 0.510108-0.682296I$ $a=\ \ 0.332547-1.273250I$ $b=-0.402137+0.983875I$	$1.43305+4.63133I$	0
$u=-0.170544+0.821873I$ $a=-0.45307+1.94856I$ $b=\ \ 0.864012-0.660336I$	$2.31706+2.60082I$	0
$u=-0.170544-0.821873I$ $a=-0.45307-1.94856I$ $b=\ \ 0.864012+0.660336I$	$2.31706-2.60082I$	0
$u=\ \ 1.172680+0.270553I$ $a=\ \ 0.561705+1.044390I$ $b=\ \ 0.692677-0.246807I$	$-0.34895-2.72408I$	0
$u=\ \ 1.172680-0.270553I$ $a=\ \ 0.561705-1.044390I$ $b=\ \ 0.692677+0.246807I$	$-0.34895+2.72408I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.20530$ $a=\ \ 0.119339$ $b=-1.28443$	-2.37234	0
$u=-0.035138+0.791480I$ $a=-0.688063-0.627838I$ $b=\ \ 0.434675+0.841979I$	$3.61412+1.43650I$	0
$u=-0.035138-0.791480I$ $a=-0.688063+0.627838I$ $b=\ \ 0.434675-0.841979I$	$3.61412-1.43650I$	0
$u=\ \ 0.707109+0.352643I$ $a=\ \ 1.69700-0.31512I$ $b=\ \ 0.980235+0.009187I$	$-4.60050-1.41999I$	0
$u=\ \ 0.707109-0.352643I$ $a=\ \ 1.69700+0.31512I$ $b=\ \ 0.980235-0.009187I$	$-4.60050+1.41999I$	0
$u=\ \ 0.343900+0.703421I$ $a=\ \ 0.54662-1.51724I$ $b=\ \ 1.139670+0.641881I$	$1.48391-6.97874I$	0
$u=\ \ 0.343900-0.703421I$ $a=\ \ 0.54662+1.51724I$ $b=\ \ 1.139670-0.641881I$	$1.48391+6.97874I$	0
$u=-0.684542+0.375884I$ $a=\ \ 0.565949-0.523686I$ $b=\ \ 1.273910+0.251148I$	$-11.42070-1.71813I$	0
$u=-0.684542-0.375884I$ $a=\ \ 0.565949+0.523686I$ $b=\ \ 1.273910-0.251148I$	$-11.42070+1.71813I$	0
$u=-0.774735+0.028512I$ $a=-1.39398+1.10712I$ $b=-1.115300-0.091313I$	$-11.30190+2.36606I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.774735-0.028512I$ $a=-1.39398-1.10712I$ $b=-1.115300+0.091313I$	$-11.30190-2.36606I$	0
$u=\ \ 0.971948+0.754721I$ $a=-0.279676-0.490526I$ $b=-0.934466+0.481120I$	$-2.16344+2.84576I$	0
$u=\ \ 0.971948-0.754721I$ $a=-0.279676+0.490526I$ $b=-0.934466-0.481120I$	$-2.16344-2.84576I$	0
$u=-0.019191+0.758227I$ $a=-1.42992+2.58015I$ $b=\ \ 0.840519-0.669274I$	$2.17960+2.59133I$	0
$u=-0.019191-0.758227I$ $a=-1.42992-2.58015I$ $b=\ \ 0.840519+0.669274I$	$2.17960-2.59133I$	0
$u=\ \ 0.799867+0.949650I$ $a=\ \ 0.14204+1.58333I$ $b=-0.925437-0.691493I$	$-1.57764-5.52140I$	0
$u=\ \ 0.799867-0.949650I$ $a=\ \ 0.14204-1.58333I$ $b=-0.925437+0.691493I$	$-1.57764+5.52140I$	0
$u=-0.927660+0.825764I$ $a=\ \ 0.300167+0.279865I$ $b=\ \ 1.231230-0.033904I$	$-4.71028+7.33856I$	0
$u=-0.927660-0.825764I$ $a=\ \ 0.300167-0.279865I$ $b=\ \ 1.231230+0.033904I$	$-4.71028-7.33856I$	0
$u=\ \ 0.116359+0.748309I$ $a=\ \ 0.625750-0.998270I$ $b=-0.425643+1.056950I$	$-2.34326-5.17950I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.116359 - 0.748309I$ $a = 0.625750 + 0.998270I$ $b = -0.425643 - 1.056950I$	$-2.34326 + 5.17950I$	0
$u = 0.479187 + 0.567765I$ $a = 2.15146 - 1.72457I$ $b = 0.928810 + 0.502544I$	$0.34784 - 5.12983I$	0
$u = 0.479187 - 0.567765I$ $a = 2.15146 + 1.72457I$ $b = 0.928810 - 0.502544I$	$0.34784 + 5.12983I$	0
$u = -0.973470 + 0.807792I$ $a = -0.650484 - 1.157520I$ $b = -1.129410 + 0.509755I$	$-9.68944 + 6.79778I$	0
$u = -0.973470 - 0.807792I$ $a = -0.650484 + 1.157520I$ $b = -1.129410 - 0.509755I$	$-9.68944 - 6.79778I$	0
$u = -0.588303 + 0.421762I$ $a = -0.38630 + 1.47599I$ $b = 0.444568 - 1.254430I$	$-4.56487 + 6.76711I$	0
$u = -0.588303 - 0.421762I$ $a = -0.38630 - 1.47599I$ $b = 0.444568 + 1.254430I$	$-4.56487 - 6.76711I$	0
$u = -0.548054 + 0.469018I$ $a = -0.272258 - 0.565473I$ $b = -0.321105 + 0.348772I$	$-0.981069 + 0.675049I$	0
$u = -0.548054 - 0.469018I$ $a = -0.272258 + 0.565473I$ $b = -0.321105 - 0.348772I$	$-0.981069 - 0.675049I$	0
$u = -0.699564 + 1.080760I$ $a = -0.684863 - 0.689021I$ $b = 0.463445 + 0.766465I$	$0.81996 + 4.40543I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.699564-1.080760I$ $a=-0.684863+0.689021I$ $b=\ \ 0.463445-0.766465I$	$0.81996-4.40543I$	0
$u=\ \ 0.264880+1.265290I$ $a=\ \ 0.774566+1.042540I$ $b=-0.893724-0.530535I$	$-1.61994-4.80324I$	0
$u=\ \ 0.264880-1.265290I$ $a=\ \ 0.774566-1.042540I$ $b=-0.893724+0.530535I$	$-1.61994+4.80324I$	0
$u=\ \ 0.103422+0.685721I$ $a=\ \ 3.05287+0.04453I$ $b=-0.886886+0.550508I$	$1.47781+5.10675I$	0
$u=\ \ 0.103422-0.685721I$ $a=\ \ 3.05287-0.04453I$ $b=-0.886886-0.550508I$	$1.47781-5.10675I$	0
$u=-0.024085+1.310030I$ $a=\ \ 0.29059-2.09296I$ $b=-0.690944+0.464454I$	$-6.34572-1.76164I$	0
$u=-0.024085-1.310030I$ $a=\ \ 0.29059+2.09296I$ $b=-0.690944-0.464454I$	$-6.34572+1.76164I$	0
$u=-0.329046+0.599417I$ $a=\ \ 0.62690+1.89085I$ $b=-0.709570-0.545400I$	$-1.210210+0.420943I$	0
$u=-0.329046-0.599417I$ $a=\ \ 0.62690-1.89085I$ $b=-0.709570+0.545400I$	$-1.210210-0.420943I$	0
$u=\ \ 1.32170$ $a=-0.458239$ $b=\ \ 1.49086$	-6.91048	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.089553 + 0.661013I$ $a = -3.10919 - 1.51787I$ $b = 0.976704 + 0.580862I$	$-5.28622 - 9.93901I$	0
$u = 0.089553 - 0.661013I$ $a = -3.10919 + 1.51787I$ $b = 0.976704 - 0.580862I$	$-5.28622 + 9.93901I$	0
$u = -0.841993 + 1.037930I$ $a = 0.246589 + 1.260550I$ $b = -0.276920 - 0.999554I$	$-0.18904 + 4.43856I$	0
$u = -0.841993 - 1.037930I$ $a = 0.246589 - 1.260550I$ $b = -0.276920 + 0.999554I$	$-0.18904 - 4.43856I$	0
$u = -1.234190 + 0.517934I$ $a = -0.32568 - 1.46809I$ $b = -0.204742 + 0.521959I$	$-5.87844 - 5.67462I$	0
$u = -1.234190 - 0.517934I$ $a = -0.32568 + 1.46809I$ $b = -0.204742 - 0.521959I$	$-5.87844 + 5.67462I$	0
$u = -1.336730 + 0.092485I$ $a = -0.88139 + 1.24930I$ $b = -0.520147 - 0.180317I$	$-5.84098 + 5.80109I$	0
$u = -1.336730 - 0.092485I$ $a = -0.88139 - 1.24930I$ $b = -0.520147 + 0.180317I$	$-5.84098 - 5.80109I$	0
$u = 1.110730 + 0.781094I$ $a = -0.022663 + 0.254977I$ $b = -1.350050 - 0.077479I$	$-11.5645 - 10.7900I$	0
$u = 1.110730 - 0.781094I$ $a = -0.022663 - 0.254977I$ $b = -1.350050 + 0.077479I$	$-11.5645 + 10.7900I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.647621+1.201000I$ $a=\ 0.762783+1.103760I$ $b=-0.705171-0.872448I$	$0.385022+0.107964I$	0
$u=-0.647621-1.201000I$ $a=\ 0.762783-1.103760I$ $b=-0.705171+0.872448I$	$0.385022-0.107964I$	0
$u=\ 0.769908+1.153220I$ $a=-0.472047+1.079770I$ $b=\ 0.509078-0.857408I$	$3.87805-2.26852I$	0
$u=\ 0.769908-1.153220I$ $a=-0.472047-1.079770I$ $b=\ 0.509078+0.857408I$	$3.87805+2.26852I$	0
$u=\ 0.698278+1.201230I$ $a=-0.02692+1.90099I$ $b=-0.998175-0.747753I$	$-0.52356-6.09369I$	0
$u=\ 0.698278-1.201230I$ $a=-0.02692-1.90099I$ $b=-0.998175+0.747753I$	$-0.52356+6.09369I$	0
$u=-0.251881+0.531550I$ $a=-0.938753-0.899272I$ $b=-1.141050+0.529975I$	$-0.120299+1.210570I$	$-9.4715-13.8749I$
$u=-0.251881-0.531550I$ $a=-0.938753+0.899272I$ $b=-1.141050-0.529975I$	$-0.120299-1.210570I$	$-9.4715+13.8749I$
$u=\ 0.87395+1.11199I$ $a=\ 0.39038-1.65013I$ $b=\ 1.086800+0.627696I$	$-1.00826-9.69803I$	0
$u=\ 0.87395-1.11199I$ $a=\ 0.39038+1.65013I$ $b=\ 1.086800-0.627696I$	$-1.00826+9.69803I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.83764 + 1.17107I$ $a = 0.652409 - 0.941387I$ $b = -0.515383 + 0.903941I$	$1.90280 - 9.41620I$	0
$u = 0.83764 - 1.17107I$ $a = 0.652409 + 0.941387I$ $b = -0.515383 - 0.903941I$	$1.90280 + 9.41620I$	0
$u = 0.26966 + 1.44054I$ $a = -0.37076 - 1.73682I$ $b = 0.882042 + 0.460269I$	$-2.53359 - 1.87365I$	0
$u = 0.26966 - 1.44054I$ $a = -0.37076 + 1.73682I$ $b = 0.882042 - 0.460269I$	$-2.53359 + 1.87365I$	0
$u = -0.233905 + 0.464300I$ $a = -0.58755 + 2.61761I$ $b = 1.099530 - 0.808893I$	$-5.22555 + 4.13773I$	$-14.9345 - 2.8334I$
$u = -0.233905 - 0.464300I$ $a = -0.58755 - 2.61761I$ $b = 1.099530 + 0.808893I$	$-5.22555 - 4.13773I$	$-14.9345 + 2.8334I$
$u = -0.94984 + 1.18248I$ $a = -0.587432 - 1.051910I$ $b = 0.514050 + 0.989899I$	$-4.18881 + 13.48630I$	0
$u = -0.94984 - 1.18248I$ $a = -0.587432 + 1.051910I$ $b = 0.514050 - 0.989899I$	$-4.18881 - 13.48630I$	0
$u = -0.174626 + 0.394055I$ $a = -3.39050 - 4.42295I$ $b = -0.808733 + 0.552788I$	$1.72562 - 0.67585I$	$-0.1046394 + 0.0437731I$
$u = -0.174626 - 0.394055I$ $a = -3.39050 + 4.42295I$ $b = -0.808733 - 0.552788I$	$1.72562 + 0.67585I$	$-0.1046394 - 0.0437731I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.96770+1.24613I$ $a=-0.16685-1.63788I$ $b=-1.113020+0.683266I$	$0.0733+15.2633I$	0
$u=-0.96770-1.24613I$ $a=-0.16685+1.63788I$ $b=-1.113020-0.683266I$	$0.0733-15.2633I$	0
$u=-1.08724+1.15973I$ $a=-0.071711-0.890398I$ $b=-1.069550+0.219502I$	$-3.97164-0.36681I$	0
$u=-1.08724-1.15973I$ $a=-0.071711+0.890398I$ $b=-1.069550-0.219502I$	$-3.97164+0.36681I$	0
$u=0.180044+0.334675I$ $a=0.29086+3.21994I$ $b=-0.960656-0.789140I$	$-0.18705-3.08251I$	$-13.8819+5.7749I$
$u=0.180044-0.334675I$ $a=0.29086-3.21994I$ $b=-0.960656+0.789140I$	$-0.18705+3.08251I$	$-13.8819-5.7749I$
$u=-0.89398+1.36055I$ $a=-0.062611-0.226372I$ $b=0.988118+0.358175I$	$-8.31788+0.18076I$	0
$u=-0.89398-1.36055I$ $a=-0.062611+0.226372I$ $b=0.988118-0.358175I$	$-8.31788-0.18076I$	0
$u=-0.93346+1.33979I$ $a=0.513154+0.743677I$ $b=-0.755184-0.623513I$	$2.55701+1.93002I$	0
$u=-0.93346-1.33979I$ $a=0.513154-0.743677I$ $b=-0.755184+0.623513I$	$2.55701-1.93002I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.01308+1.31880I$ $a=-0.01076+1.49567I$ $b=\ \ 1.094750-0.672100I$	$2.11697+7.94798I$	0
$u=-1.01308-1.31880I$ $a=-0.01076-1.49567I$ $b=\ \ 1.094750+0.672100I$	$2.11697-7.94798I$	0
$u=-0.100215+0.308742I$ $a=-1.38356-7.58911I$ $b=\ \ 0.664047+0.576213I$	$-4.31968+5.28965I$	$-3.83909-5.22434I$
$u=-0.100215-0.308742I$ $a=-1.38356+7.58911I$ $b=\ \ 0.664047-0.576213I$	$-4.31968-5.28965I$	$-3.83909+5.22434I$
$u=\ \ 1.06937+1.29791I$ $a=\ \ 0.05356-1.57748I$ $b=\ \ 1.147760+0.711431I$	$-6.1639-19.6674I$	0
$u=\ \ 1.06937-1.29791I$ $a=\ \ 0.05356+1.57748I$ $b=\ \ 1.147760-0.711431I$	$-6.1639+19.6674I$	0
$u=-1.60116+0.54934I$ $a=\ \ 0.010083-0.801196I$ $b=\ \ 1.019310+0.546714I$	$-1.94906-6.81814I$	0
$u=-1.60116-0.54934I$ $a=\ \ 0.010083+0.801196I$ $b=\ \ 1.019310-0.546714I$	$-1.94906+6.81814I$	0
$u=\ \ 1.17760+1.22031I$ $a=-0.512586+0.795255I$ $b=\ \ 0.796434-0.754938I$	$-1.75309-3.05946I$	0
$u=\ \ 1.17760-1.22031I$ $a=-0.512586-0.795255I$ $b=\ \ 0.796434+0.754938I$	$-1.75309+3.05946I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.26832+1.68540I$ $a=\ \ 0.59758-1.50479I$ $b=-0.979726+0.522355I$	$-7.32729+5.88276I$	0
$u=-0.26832-1.68540I$ $a=\ \ 0.59758+1.50479I$ $b=-0.979726-0.522355I$	$-7.32729-5.88276I$	0
$u=\ \ 1.20607+1.27559I$ $a=-0.31054+1.42032I$ $b=-0.931493-0.612346I$	$2.00130-6.79686I$	0
$u=\ \ 1.20607-1.27559I$ $a=-0.31054-1.42032I$ $b=-0.931493+0.612346I$	$2.00130+6.79686I$	0
$u=-0.233711$ $a=\ \ 2.09840$ $b=-0.780549$	-1.28591	-7.80700
$u=\ \ 0.061520+0.222196I$ $a=-2.66146+4.07281I$ $b=\ \ 0.820097-0.895548I$	$-4.36742+2.42677I$	$-12.68907-3.84305I$
$u=\ \ 0.061520-0.222196I$ $a=-2.66146-4.07281I$ $b=\ \ 0.820097+0.895548I$	$-4.36742-2.42677I$	$-12.68907+3.84305I$
$u=\ \ 1.11273+1.38219I$ $a=\ \ 0.152711+1.337940I$ $b=-1.191970-0.639568I$	$-2.90923-10.25880I$	0
$u=\ \ 1.11273-1.38219I$ $a=\ \ 0.152711-1.337940I$ $b=-1.191970+0.639568I$	$-2.90923+10.25880I$	0
$u=-1.10550+1.39834I$ $a=\ \ 0.442322+1.292840I$ $b=\ \ 0.882770-0.476322I$	$-2.08616+4.53346I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.10550-1.39834I$ $a=\ \ 0.442322-1.292840I$ $b=\ \ 0.882770+0.476322I$	$-2.08616-4.53346I$	0
$u=-1.37785+1.15881I$ $a=\ \ 0.29332+1.46570I$ $b=\ \ 0.923535-0.710671I$	$-2.14974+8.62294I$	0
$u=-1.37785-1.15881I$ $a=\ \ 0.29332-1.46570I$ $b=\ \ 0.923535+0.710671I$	$-2.14974-8.62294I$	0
$u=\ \ 0.83341+1.60435I$ $a=-0.550036+0.641053I$ $b=\ \ 0.862447-0.474747I$	$-2.01601-0.65285I$	0
$u=\ \ 0.83341-1.60435I$ $a=-0.550036-0.641053I$ $b=\ \ 0.862447+0.474747I$	$-2.01601+0.65285I$	0
$u=\ \ 1.87851$ $a=-0.0450608$ $b=\ \ 1.19224$	-6.65544	0
$u=\ \ 0.0780179$ $a=-2.23309$ $b=\ \ 1.84685$	-10.0070	168.230
$u=\ \ 1.24571+1.68316I$ $a=-0.310636-0.866579I$ $b=\ \ 1.162770+0.301482I$	$-9.63485+2.57620I$	0
$u=\ \ 1.24571-1.68316I$ $a=-0.310636+0.866579I$ $b=\ \ 1.162770-0.301482I$	$-9.63485-2.57620I$	0
$u=\ \ 2.00052+0.77434I$ $a=\ \ 0.165853-0.784226I$ $b=-1.076110+0.544915I$	$-7.97604+10.06560I$	0

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$2.00052-0.77434I$		
$a=$	$0.165853+0.784226I$	$-7.97604-10.06560I$	0
$b=$	$-1.076110-0.544915I$		

II.

$\boldsymbol{I_2^u = \langle -2.90\times 10^{40}u^{31}+3.42\times 10^{40}u^{30}+\cdots+1.17\times 10^{41}b+1.01\times 10^{41},\ 3.05\times 10^{40}u^{31}-3.50\times 10^{40}u^{30}+\cdots+1.17\times 10^{41}a-9.78\times 10^{40},\ u^{32}-u^{31}+\cdots-3u-1\rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.259443u^{31} + 0.297724u^{30} + \cdots + 1.13377u + 0.832915 \\ 0.247008u^{31} - 0.291495u^{30} + \cdots + 1.96496u - 0.861759 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.112993u^{31} + 0.228762u^{30} + \cdots - 5.05835u + 0.652592 \\ 0.312631u^{31} - 0.148818u^{30} + \cdots + 5.80454u - 1.80697 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.199638u^{31} + 0.0799439u^{30} + \cdots + 0.746197u - 1.15438 \\ 0.312631u^{31} - 0.148818u^{30} + \cdots + 5.80454u - 1.80697 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.590732u^{31} - 0.437882u^{30} + \cdots + 0.715423u + 0.744481 \\ 0.167742u^{31} - 0.139050u^{30} + \cdots - 0.349573u + 0.253437 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.259169u^{31} - 0.175413u^{30} + \cdots + 7.20063u - 1.66364 \\ -0.849297u^{31} + 0.802593u^{30} + \cdots - 7.27708u + 2.23530 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.0855724u^{31} + 0.163355u^{30} + \cdots - 4.01996u + 0.932174 \\ 0.188127u^{31} - 0.0569394u^{30} + \cdots + 4.91394u - 2.00877 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.0922224u^{31} - 0.126322u^{30} + \cdots + 2.23122u + 1.34756 \\ 0.218959u^{31} - 0.322426u^{30} + \cdots + 1.87298u - 0.737771 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.793517u^{31} + 0.496709u^{30} + \cdots - 4.79774u + 0.822991 \\ 0.200468u^{31} - 0.213050u^{30} + \cdots + 3.85227u - 0.945761 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.157447u^{31} - 0.483979u^{30} + \cdots + 2.42869u - 2.19665 \\ -0.0246276u^{31} + 0.258033u^{30} + \cdots - 4.45651u + 2.29913 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 14.3644u^{31} - 17.9288u^{30} + \cdots + 257.537u - 99.8147$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{32} - 17u^{31} + \cdots - 12u + 1$
c_2	$u^{32} + u^{31} + \cdots - 2u - 1$
c_3	$u^{32} - u^{31} + \cdots - 3u - 1$
c_4	$u^{32} - 2u^{31} + \cdots + 2u - 1$
c_5	$u^{32} - 17u^{30} + \cdots - 3u - 1$
c_6	$u^{32} - u^{31} + \cdots + 2u - 1$
c_7	$u^{32} - 12u^{31} + \cdots - 485u + 53$
c_8	$u^{32} - 6u^{31} + \cdots + 7u - 1$
c_9	$u^{32} - u^{31} + \cdots - 5u - 1$
c_{10}, c_{11}	$u^{32} - 17u^{30} + \cdots + 3u - 1$
c_{12}	$u^{32} - 4u^{31} + \cdots - 3u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{32} - y^{31} + \cdots + 20y + 1$
c_2, c_6	$y^{32} - 17y^{31} + \cdots - 12y + 1$
c_3	$y^{32} + 7y^{31} + \cdots - 25y + 1$
c_4	$y^{32} + 2y^{31} + \cdots + 2y + 1$
c_5, c_{10}, c_{11}	$y^{32} - 34y^{31} + \cdots - 27y + 1$
c_7	$y^{32} + 4y^{31} + \cdots - 18985y + 2809$
c_8	$y^{32} + 10y^{31} + \cdots - 27y + 1$
c_9	$y^{32} + 17y^{31} + \cdots - 17y + 1$
c_{12}	$y^{32} - 10y^{31} + \cdots - y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.488763 + 0.879566I$ $a = 0.569405 - 1.230560I$ $b = 0.930711 + 0.077629I$	$-3.60212 - 0.35271I$	$-11.44184 + 1.16616I$
$u = 0.488763 - 0.879566I$ $a = 0.569405 + 1.230560I$ $b = 0.930711 - 0.077629I$	$-3.60212 + 0.35271I$	$-11.44184 - 1.16616I$
$u = 1.04094$ $a = -0.0819584$ $b = 1.29815$	-2.52536	-34.5880
$u = 1.026030 + 0.254901I$ $a = 1.315340 + 0.096241I$ $b = 0.625021 - 0.470991I$	$-5.29143 - 5.14954I$	$-9.59656 + 2.58832I$
$u = 1.026030 - 0.254901I$ $a = 1.315340 - 0.096241I$ $b = 0.625021 + 0.470991I$	$-5.29143 + 5.14954I$	$-9.59656 - 2.58832I$
$u = -0.339151 + 0.799174I$ $a = -0.96550 + 1.07724I$ $b = 0.574094 - 0.581329I$	$1.38532 + 3.77616I$	$-4.24255 - 7.68180I$
$u = -0.339151 - 0.799174I$ $a = -0.96550 - 1.07724I$ $b = 0.574094 + 0.581329I$	$1.38532 - 3.77616I$	$-4.24255 + 7.68180I$
$u = -1.140530 + 0.020355I$ $a = 0.316295 + 0.217050I$ $b = 1.053640 - 0.563098I$	$-6.79304 + 9.50096I$	$-9.61208 - 8.36831I$
$u = -1.140530 - 0.020355I$ $a = 0.316295 - 0.217050I$ $b = 1.053640 + 0.563098I$	$-6.79304 - 9.50096I$	$-9.61208 + 8.36831I$
$u = -0.648446 + 0.993169I$ $a = -1.27648 - 1.05847I$ $b = -0.720929 + 0.038410I$	$-7.43281 + 2.78981I$	$-18.8572 - 2.8332I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.648446-0.993169I$ $a=-1.27648+1.05847I$ $b=-0.720929-0.038410I$	$-7.43281-2.78981I$	$-18.8572+2.8332I$
$u=-0.427348+0.626009I$ $a=\ \ 1.14010-1.23422I$ $b=-0.720446-0.539462I$	$1.40962+1.58717I$	$-0.33209-7.04805I$
$u=-0.427348-0.626009I$ $a=\ \ 1.14010+1.23422I$ $b=-0.720446+0.539462I$	$1.40962-1.58717I$	$-0.33209+7.04805I$
$u=-0.490350+1.206540I$ $a=\ \ 0.330426-0.921161I$ $b=-1.127460+0.183458I$	$-9.23401-1.87161I$	$-13.49061-0.90579I$
$u=-0.490350-1.206540I$ $a=\ \ 0.330426+0.921161I$ $b=-1.127460-0.183458I$	$-9.23401+1.87161I$	$-13.49061+0.90579I$
$u=\ \ 0.594651+1.175790I$ $a=\ \ 0.021833+1.195750I$ $b=-0.428033-0.483703I$	$-1.63100-2.95883I$	$-8.63603+2.17883I$
$u=\ \ 0.594651-1.175790I$ $a=\ \ 0.021833-1.195750I$ $b=-0.428033+0.483703I$	$-1.63100+2.95883I$	$-8.63603-2.17883I$
$u=\ \ 0.512118+0.447145I$ $a=-1.88937+1.33666I$ $b=-0.998073-0.581544I$	$0.46470-6.10591I$	$-6.74537+9.41874I$
$u=\ \ 0.512118-0.447145I$ $a=-1.88937-1.33666I$ $b=-0.998073+0.581544I$	$0.46470+6.10591I$	$-6.74537-9.41874I$
$u=\ \ 0.592008+0.293624I$ $a=\ \ 0.61138+2.14540I$ $b=-0.500066-0.885993I$	$-4.42557-6.14911I$	$-8.93876+4.34127I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \ 0.592008 - 0.293624I$ $a = \ 0.61138 - 2.14540I$ $b = -0.500066 + 0.885993I$	$-4.42557 + 6.14911I$	$-8.93876 - 4.34127I$
$u = -0.762483 + 1.129630I$ $a = \ 0.617322 + 0.539443I$ $b = -0.700162 - 0.615373I$	$1.83552 + 2.12082I$	$-6.99441 - 2.56747I$
$u = -0.762483 - 1.129630I$ $a = \ 0.617322 - 0.539443I$ $b = -0.700162 + 0.615373I$	$1.83552 - 2.12082I$	$-6.99441 + 2.56747I$
$u = \ 0.99494 + 1.04188I$ $a = -0.41113 + 1.50304I$ $b = -0.995483 - 0.633001I$	$0.88609 - 7.07001I$	$-7.06142 + 8.53212I$
$u = \ 0.99494 - 1.04188I$ $a = -0.41113 - 1.50304I$ $b = -0.995483 + 0.633001I$	$0.88609 + 7.07001I$	$-7.06142 - 8.53212I$
$u = -0.117844 + 0.444849I$ $a = \ 1.17297 + 1.74658I$ $b = \ 1.099890 - 0.592087I$	$-0.007912 + 0.854010I$	$-2.86933 + 5.57519I$
$u = -0.117844 - 0.444849I$ $a = \ 1.17297 - 1.74658I$ $b = \ 1.099890 + 0.592087I$	$-0.007912 - 0.854010I$	$-2.86933 - 5.57519I$
$u = \ 1.06050 + 1.48292I$ $a = -0.366424 + 1.030470I$ $b = \ 0.680650 - 0.687783I$	$-0.71718 - 1.95774I$	0
$u = \ 1.06050 - 1.48292I$ $a = -0.366424 - 1.030470I$ $b = \ 0.680650 + 0.687783I$	$-0.71718 + 1.95774I$	0
$u = -0.174657$ $a = \ 0.677629$ $b = -1.84431$	-10.0299	-181.300

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.27599+1.47429I$		
$a=\ \ 0.01599+1.46880I$	$-1.69191+7.28094I$	0
$b=\ \ 0.999736-0.681086I$		
$u=-1.27599-1.47429I$		
$a=\ \ 0.01599-1.46880I$	$-1.69191-7.28094I$	0
$b=\ \ 0.999736+0.681086I$		

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

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u^2 + u - 1 \\ -u^2 - u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -u^2 - 2u + 1 \\ u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u^2 - u + 1 \\ u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -u^2 - 3u - 2 \\ u + 1 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -u^2 - 2u - 2 \\ 1 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -u^2 - 2u \\ u^2 + 2u + 1 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} u^2 + u - 1 \\ -u^2 - u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -u \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -2u - 1 \\ u + 1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -3u^2 - 10u - 9$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3	$y^3 - 2y^2 - 3y - 1$
c_2, c_5, c_6 c_{10}, c_{11}	$y^3 - 2y^2 + y - 1$
c_4	$y^3 - 5y^2 - 2y - 1$
c_7	y^3
c_8, c_{12}	$y^3 - y^2 + 2y - 1$
c_9	$y^3 + 3y^2 + 2y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.122561+0.744862I$ $a=-1.66236+0.56228I$ $b=\ \ 0.662359-0.562280I$	$1.45094+3.77083I$	$-6.15499-6.90087I$
$u=-0.122561-0.744862I$ $a=-1.66236-0.56228I$ $b=\ \ 0.662359+0.562280I$	$1.45094-3.77083I$	$-6.15499+6.90087I$
$u=-1.75488$ $a=\ \ 0.324718$ $b=-1.32472$	-6.19175	-0.690010

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^3-2u^2+u-1)(u^{32}-17u^{31}+\cdots-12u+1)$ $\cdot(u^{151}+66u^{150}+\cdots+185503u+3481)$
c_2	$(u^3-u+1)(u^{32}+u^{31}+\cdots-2u-1)(u^{151}-2u^{150}+\cdots+255u-59)$
c_3	$(u^3+2u^2+u+1)(u^{32}-u^{31}+\cdots-3u-1)$ $\cdot(u^{151}-2u^{150}+\cdots+2162u-449)$
c_4	$(u^3+3u^2+2u+1)(u^{32}-2u^{31}+\cdots+2u-1)$ $\cdot(u^{151}-6u^{150}+\cdots-5051302u-765269)$
c_5	$(u^3-u+1)(u^{32}-17u^{30}+\cdots-3u-1)(u^{151}-u^{150}+\cdots+122u+11)$
c_6	$(u^3-u-1)(u^{32}-u^{31}+\cdots+2u-1)(u^{151}-2u^{150}+\cdots+255u-59)$
c_7	$u^3(u^{32}-12u^{31}+\cdots-485u+53)$ $\cdot(u^{151}+7u^{150}+\cdots+2354104u+756296)$
c_8	$(u^3+u^2-1)(u^{32}-6u^{31}+\cdots+7u-1)(u^{151}+4u^{150}+\cdots-5327u+391)$
c_9	$(u^3+u^2+2u+1)(u^{32}-u^{31}+\cdots-5u-1)(u^{151}+3u^{150}+\cdots-u+1)$
c_{10}, c_{11}	$(u^3-u-1)(u^{32}-17u^{30}+\cdots+3u-1)(u^{151}-u^{150}+\cdots+122u+11)$
c_{12}	$(u^3+u^2-1)(u^{32}-4u^{31}+\cdots-3u+1)(u^{151}+14u^{150}+\cdots+45u+1)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^3-2y^2-3y-1)(y^{32}-y^{31}+\cdots+20y+1)$ $\cdot(y^{151}+42y^{150}+\cdots-823270257y-12117361)$
c_2, c_6	$(y^3-2y^2+y-1)(y^{32}-17y^{31}+\cdots-12y+1)$ $\cdot(y^{151}-66y^{150}+\cdots+185503y-3481)$
c_3	$(y^3-2y^2-3y-1)(y^{32}+7y^{31}+\cdots-25y+1)$ $\cdot(y^{151}+22y^{150}+\cdots+18108324y-201601)$
c_4	$(y^3-5y^2-2y-1)(y^{32}+2y^{31}+\cdots+2y+1)$ $\cdot(y^{151}+42y^{150}+\cdots-16103090955074y-585636642361)$
c_5, c_{10}, c_{11}	$(y^3-2y^2+y-1)(y^{32}-34y^{31}+\cdots-27y+1)$ $\cdot(y^{151}-147y^{150}+\cdots+43638y-121)$
c_7	$y^3(y^{32}+4y^{31}+\cdots-18985y+2809)$ $\cdot(y^{151}-35y^{150}+\cdots+10638457160160y-571983639616)$
c_8	$(y^3-y^2+2y-1)(y^{32}+10y^{31}+\cdots-27y+1)$ $\cdot(y^{151}+6y^{150}+\cdots-424913y-152881)$
c_9	$(y^3+3y^2+2y-1)(y^{32}+17y^{31}+\cdots-17y+1)$ $\cdot(y^{151}+17y^{150}+\cdots+133y-1)$
c_{12}	$(y^3-y^2+2y-1)(y^{32}-10y^{31}+\cdots-y+1)$ $\cdot(y^{151}+6y^{150}+\cdots+293y-1)$