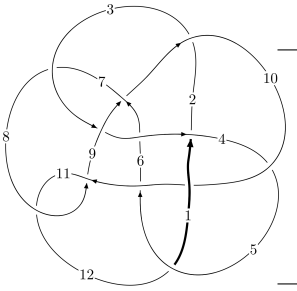
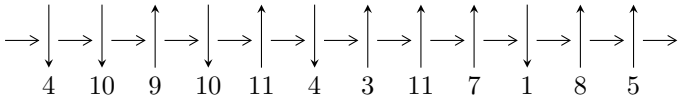
$12n_{0841}$ $(K12n_{0841})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle 1.90108 \times 10^{282} u^{72} - 2.46888 \times 10^{282} u^{71} + \cdots + 1.59427 \times 10^{284} b - 3.09209 \times 10^{284},$$
$$- 4.97935 \times 10^{284} u^{72} + 5.96759 \times 10^{284} u^{71} + \cdots + 6.85537 \times 10^{285} a + 1.28477 \times 10^{286},$$
$$u^{73} - u^{72} + \cdots - 309u - 43 \rangle$$

$$I_2^u = \langle 1.37214 \times 10^{26} u^{32} + 1.11140 \times 10^{24} u^{31} + \cdots + 5.91097 \times 10^{25} b - 2.90680 \times 10^{26},$$
$$6.79162 \times 10^{26} u^{32} + 1.40659 \times 10^{27} u^{31} + \cdots + 5.91097 \times 10^{25} a + 1.02213 \times 10^{27},\ u^{33} + 2u^{32} + \cdots + u + 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 106 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. $\boldsymbol{I_1^u = \langle 1.90 \times 10^{282} u^{72} - 2.47 \times 10^{282} u^{71} + \cdots + 1.59 \times 10^{284} b - 3.09 \times 10^{284},\ -4.98 \times 10^{284} u^{72} + 5.97 \times 10^{284} u^{71} + \cdots + 6.86 \times 10^{285} a + 1.28 \times 10^{286},\ u^{73} - u^{72} + \cdots - 309u - 43 \rangle}$

(i) Arc colorings

$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.0726344u^{72} - 0.0870499u^{71} + \cdots - 12.0464u - 1.87411 \\ -0.0119244u^{72} + 0.0154860u^{71} + \cdots + 4.04662u + 1.93950 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.0634815u^{72} - 0.0752458u^{71} + \cdots - 9.33095u - 0.554483 \\ -0.0114519u^{72} + 0.0149796u^{71} + \cdots + 3.62096u + 1.82549 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.0358045u^{72} + 0.0472121u^{71} + \cdots - 5.21020u + 16.8882 \\ -0.00222320u^{72} + 0.00250582u^{71} + \cdots - 2.28998u + 0.112053 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.0845588u^{72} - 0.102536u^{71} + \cdots - 16.0931u - 3.81361 \\ -0.00645912u^{72} + 0.00933863u^{71} + \cdots + 0.00294395u + 1.06814 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.158202u^{72} - 0.190926u^{71} + \cdots - 53.4190u - 2.27997 \\ -0.0208591u^{72} + 0.0252457u^{71} + \cdots + 6.05259u + 4.49812 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.00258344u^{72} - 0.00120206u^{71} + \cdots + 32.9271u + 6.85728 \\ -0.00790244u^{72} + 0.00893571u^{71} + \cdots + 7.42915u + 1.73646 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.0675535u^{72} + 0.0804100u^{71} + \cdots + 32.6859u + 7.80933 \\ 0.00236218u^{72} - 0.00404640u^{71} + \cdots + 2.31253u - 0.239928 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.0675535u^{72} + 0.0804100u^{71} + \cdots + 32.6859u + 7.80933 \\ 1.32859 \times 10^{-6} u^{72} - 0.00128498u^{71} + \cdots + 3.38038u + 0.312900 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.0794662u^{72} - 0.103769u^{71} + \cdots - 34.4075u - 13.9361$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{73} + 6u^{72} + \cdots - 63093u - 11592$
c_2	$u^{73} + 3u^{72} + \cdots + 20760218389u + 1628977223$
c_3	$u^{73} + u^{72} + \cdots + 56046u - 10579$
c_4	$u^{73} - 2u^{72} + \cdots + 285527u - 23711$
c_5	$u^{73} + 46u^{71} + \cdots + 172232704u - 28909568$
c_6	$u^{73} - 8u^{72} + \cdots + 26606u + 4801$
c_7	$u^{73} - 5u^{72} + \cdots - 1326094u - 293207$
c_8, c_{11}	$u^{73} - u^{72} + \cdots - 309u - 43$
c_9	$u^{73} + 4u^{72} + \cdots - 19u - 4$
c_{10}	$u^{73} - 5u^{72} + \cdots + 9u - 1$
c_{12}	$u^{73} + 45u^{71} + \cdots + 241471u + 54913$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{73} - 88y^{72} + \cdots + 7315837785y - 134374464$
c_2	$y^{73} - 75y^{72} + \cdots + 5.45 \times 10^{20}y - 2.65 \times 10^{18}$
c_3	$y^{73} + 25y^{72} + \cdots - 491484062y - 111915241$
c_4	$y^{73} - 82y^{72} + \cdots + 5333119705y - 562211521$
c_5	$y^{73} + 92y^{72} + \cdots - 5265299779616768y - 835763121946624$
c_6	$y^{73} - 52y^{72} + \cdots - 10859270y - 23049601$
c_7	$y^{73} + 29y^{72} + \cdots - 2637873238424y - 85970344849$
c_8, c_{11}	$y^{73} + 65y^{72} + \cdots - 4365y - 1849$
c_9	$y^{73} + 4y^{72} + \cdots - 343y - 16$
c_{10}	$y^{73} + 3y^{72} + \cdots - 49y - 1$
c_{12}	$y^{73} + 90y^{72} + \cdots + 125937776729y - 3015437569$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.127388+1.019780I$ $a=-0.27880+2.25156I$ $b=-0.420810+1.154600I$	$-5.96688+0.04720I$	0
$u=-0.127388-1.019780I$ $a=-0.27880-2.25156I$ $b=-0.420810-1.154600I$	$-5.96688-0.04720I$	0
$u=-0.546347+0.885676I$ $a=-1.43696-0.50950I$ $b=-0.485548-1.108380I$	$-3.59850-4.60468I$	0
$u=-0.546347-0.885676I$ $a=-1.43696+0.50950I$ $b=-0.485548+1.108380I$	$-3.59850+4.60468I$	0
$u=0.957502$ $a=0.139905$ $b=0.588088$	1.55339	0
$u=0.753002+0.520273I$ $a=0.432133+0.644140I$ $b=-0.507710+0.528497I$	$0.328053+1.143710I$	0
$u=0.753002-0.520273I$ $a=0.432133-0.644140I$ $b=-0.507710-0.528497I$	$0.328053-1.143710I$	0
$u=0.553850+1.039870I$ $a=0.808148-0.733469I$ $b=-0.335070-0.338007I$	$-0.05050+2.22046I$	0
$u=0.553850-1.039870I$ $a=0.808148+0.733469I$ $b=-0.335070+0.338007I$	$-0.05050-2.22046I$	0
$u=0.038876+1.186330I$ $a=0.49937+1.40132I$ $b=0.297313+0.986317I$	$-2.73445+2.20929I$	0

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$0.038876-1.186330I$		
$a=$	$0.49937-1.40132I$	$-2.73445-2.20929I$	0
$b=$	$0.297313-0.986317I$		
$u=$	$0.157164+1.238850I$		
$a=$	$0.211536+1.345470I$	$-2.86036+2.78323I$	0
$b=$	$0.198177+1.356360I$		
$u=$	$0.157164-1.238850I$		
$a=$	$0.211536-1.345470I$	$-2.86036-2.78323I$	0
$b=$	$0.198177-1.356360I$		
$u=$	$1.242360+0.227658I$		
$a=$	$0.176398-0.372203I$	$1.11769+1.51817I$	0
$b=$	$0.181626-0.479125I$		
$u=$	$1.242360-0.227658I$		
$a=$	$0.176398+0.372203I$	$1.11769-1.51817I$	0
$b=$	$0.181626+0.479125I$		
$u=$	$-0.565862+0.457593I$		
$a=$	$0.370741-0.432657I$	$3.28841+2.32761I$	$7.74126+0.64227I$
$b=$	$1.178140+0.731701I$		
$u=$	$-0.565862-0.457593I$		
$a=$	$0.370741+0.432657I$	$3.28841-2.32761I$	$7.74126-0.64227I$
$b=$	$1.178140-0.731701I$		
$u=$	$-0.564181+1.141560I$		
$a=$	$-0.27712-1.76386I$	$1.21585-6.81490I$	0
$b=$	$1.32972-1.19569I$		
$u=$	$-0.564181-1.141560I$		
$a=$	$-0.27712+1.76386I$	$1.21585+6.81490I$	0
$b=$	$1.32972+1.19569I$		
$u=$	$0.163845+1.294260I$		
$a=$	$-0.383545+1.220500I$	$-4.96510+3.26137I$	0
$b=$	$-0.755460+1.149210I$		

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.163845 - 1.294260I$ $a = -0.383545 - 1.220500I$ $b = -0.755460 - 1.149210I$	$-4.96510 - 3.26137I$	0
$u = -1.295820 + 0.293548I$ $a = -0.220803 + 0.150460I$ $b = 0.579096 - 0.311435I$	$4.49917 - 3.40407I$	0
$u = -1.295820 - 0.293548I$ $a = -0.220803 - 0.150460I$ $b = 0.579096 + 0.311435I$	$4.49917 + 3.40407I$	0
$u = -0.648670 + 0.020454I$ $a = 0.496880 - 0.830329I$ $b = -0.727089 - 0.500170I$	$-2.50658 + 2.13672I$	$-1.93005 - 4.19239I$
$u = -0.648670 - 0.020454I$ $a = 0.496880 + 0.830329I$ $b = -0.727089 + 0.500170I$	$-2.50658 - 2.13672I$	$-1.93005 + 4.19239I$
$u = 0.742224 + 1.151680I$ $a = 0.58786 - 1.48452I$ $b = -0.331175 - 1.062620I$	$-1.56569 + 4.54226I$	0
$u = 0.742224 - 1.151680I$ $a = 0.58786 + 1.48452I$ $b = -0.331175 + 1.062620I$	$-1.56569 - 4.54226I$	0
$u = 0.483926 + 0.292748I$ $a = 0.759333 - 0.826900I$ $b = -1.191780 - 0.427247I$	$2.42747 + 4.75419I$	$3.78296 - 9.66597I$
$u = 0.483926 - 0.292748I$ $a = 0.759333 + 0.826900I$ $b = -1.191780 + 0.427247I$	$2.42747 - 4.75419I$	$3.78296 + 9.66597I$
$u = -0.26191 + 1.41055I$ $a = -0.18485 + 1.48467I$ $b = -0.273685 + 1.126610I$	$-7.12738 - 5.48865I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.26191-1.41055I$ $a=-0.18485-1.48467I$ $b=-0.273685-1.126610I$	$-7.12738+5.48865I$	0
$u=0.221452+0.469740I$ $a=1.224290+0.370875I$ $b=-0.055965+0.315212I$	$0.11148+1.50224I$	$0.98056-4.43574I$
$u=0.221452-0.469740I$ $a=1.224290-0.370875I$ $b=-0.055965-0.315212I$	$0.11148-1.50224I$	$0.98056+4.43574I$
$u=0.00759+1.48588I$ $a=-0.485376+1.110030I$ $b=-0.143387+1.280090I$	$-5.38340-6.68716I$	0
$u=0.00759-1.48588I$ $a=-0.485376-1.110030I$ $b=-0.143387-1.280090I$	$-5.38340+6.68716I$	0
$u=0.470078+0.199325I$ $a=0.432686-0.286578I$ $b=0.819218+0.115301I$	$1.45513+0.20645I$	$6.55614-2.36734I$
$u=0.470078-0.199325I$ $a=0.432686+0.286578I$ $b=0.819218-0.115301I$	$1.45513-0.20645I$	$6.55614+2.36734I$
$u=0.04776+1.50255I$ $a=0.848640+0.726253I$ $b=2.83110+0.99905I$	$-10.85900-5.10197I$	0
$u=0.04776-1.50255I$ $a=0.848640-0.726253I$ $b=2.83110-0.99905I$	$-10.85900+5.10197I$	0
$u=-0.07774+1.50686I$ $a=0.77000-1.29256I$ $b=2.47261-2.07061I$	$-11.94820-3.97760I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.07774-1.50686I$ $a=\ \ 0.77000+1.29256I$ $b=\ \ 2.47261+2.07061I$	$-11.94820+3.97760I$	0
$u=-0.36090+1.52061I$ $a=-0.458910-0.879495I$ $b=-0.42844-1.43436I$	$-7.41898-1.74650I$	0
$u=-0.36090-1.52061I$ $a=-0.458910+0.879495I$ $b=-0.42844+1.43436I$	$-7.41898+1.74650I$	0
$u=-0.10399+1.58796I$ $a=\ \ 0.466318+0.841694I$ $b=-0.879711+0.992820I$	$-12.64310+1.53786I$	0
$u=-0.10399-1.58796I$ $a=\ \ 0.466318-0.841694I$ $b=-0.879711-0.992820I$	$-12.64310-1.53786I$	0
$u=\ \ 1.61361+0.16148I$ $a=\ \ 0.0185075-0.0848877I$ $b=\ \ 0.254782+1.357200I$	$-8.86508+0.45729I$	0
$u=\ \ 1.61361-0.16148I$ $a=\ \ 0.0185075+0.0848877I$ $b=\ \ 0.254782-1.357200I$	$-8.86508-0.45729I$	0
$u=-0.273746+0.256270I$ $a=\ \ 0.560662+0.836418I$ $b=-0.458787+0.739858I$	$-2.62991+1.32952I$	$0.695279-0.238043I$
$u=-0.273746-0.256270I$ $a=\ \ 0.560662-0.836418I$ $b=-0.458787-0.739858I$	$-2.62991-1.32952I$	$0.695279+0.238043I$
$u=\ \ 0.04564+1.64650I$ $a=\ \ 0.461842-0.869770I$ $b=-0.826433-0.958973I$	$-12.8260+6.0607I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.04564 - 1.64650I$ $a = \quad 0.461842 + 0.869770I$ $b = -0.826433 + 0.958973I$	$-12.8260 - 6.0607I$	0
$u = \quad 0.13736 + 1.64436I$ $a = -0.285132 + 0.866905I$ $b = -0.31077 + 1.58723I$	$-3.02679 - 1.41120I$	0
$u = \quad 0.13736 - 1.64436I$ $a = -0.285132 - 0.866905I$ $b = -0.31077 - 1.58723I$	$-3.02679 + 1.41120I$	0
$u = -0.235061 + 0.209919I$ $a = \quad 0.633372 - 0.799820I$ $b = -1.045760 - 0.580762I$	$-0.88571 + 6.37260I$	$4.83087 + 2.50059I$
$u = -0.235061 - 0.209919I$ $a = \quad 0.633372 + 0.799820I$ $b = -1.045760 + 0.580762I$	$-0.88571 - 6.37260I$	$4.83087 - 2.50059I$
$u = -1.68184 + 0.13567I$ $a = \quad 0.0645204 + 0.0399801I$ $b = \quad 0.189096 - 1.360090I$	$-8.71580 - 8.50495I$	0
$u = -1.68184 - 0.13567I$ $a = \quad 0.0645204 - 0.0399801I$ $b = \quad 0.189096 + 1.360090I$	$-8.71580 + 8.50495I$	0
$u = -0.09041 + 1.75091I$ $a = -0.283240 - 0.909566I$ $b = -0.29952 - 1.40964I$	$-8.14219 + 4.14844I$	0
$u = -0.09041 - 1.75091I$ $a = -0.283240 + 0.909566I$ $b = -0.29952 + 1.40964I$	$-8.14219 - 4.14844I$	0
$u = \quad 0.29787 + 1.73626I$ $a = -0.052494 - 1.089090I$ $b = -0.370146 - 1.246580I$	$-6.41652 + 7.57448I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.29787 - 1.73626I$ $a = -0.052494 + 1.089090I$ $b = -0.370146 + 1.246580I$	$-6.41652 - 7.57448I$	0
$u = 0.68655 + 1.63439I$ $a = -0.223760 + 1.191120I$ $b = 1.15124 + 1.70140I$	$-14.4384 + 8.4206I$	0
$u = 0.68655 - 1.63439I$ $a = -0.223760 - 1.191120I$ $b = 1.15124 - 1.70140I$	$-14.4384 - 8.4206I$	0
$u = -0.210175 + 0.051229I$ $a = 6.00130 - 8.92289I$ $b = 0.486615 + 1.026790I$	$-6.47634 + 2.96744I$	$-0.62820 - 9.14160I$
$u = -0.210175 - 0.051229I$ $a = 6.00130 + 8.92289I$ $b = 0.486615 - 1.026790I$	$-6.47634 - 2.96744I$	$-0.62820 + 9.14160I$
$u = -0.67895 + 1.66488I$ $a = -0.203231 - 1.168890I$ $b = 1.05036 - 1.70160I$	$-14.4011 - 16.7229I$	0
$u = -0.67895 - 1.66488I$ $a = -0.203231 + 1.168890I$ $b = 1.05036 + 1.70160I$	$-14.4011 + 16.7229I$	0
$u = 0.075144 + 0.163295I$ $a = 14.9228 + 5.6279I$ $b = 0.696111 - 0.896716I$	$-5.77706 + 5.71802I$	$-7.01640 + 5.74071I$
$u = 0.075144 - 0.163295I$ $a = 14.9228 - 5.6279I$ $b = 0.696111 + 0.896716I$	$-5.77706 - 5.71802I$	$-7.01640 - 5.74071I$
$u = 0.80050 + 1.70387I$ $a = 0.267830 - 0.737442I$ $b = -0.83131 - 1.25507I$	$-13.5795 + 8.3759I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.80050 - 1.70387I$ $a = 0.267830 + 0.737442I$ $b = -0.83131 + 1.25507I$	$-13.5795 - 8.3759I$	0
$u = -0.79456 + 1.72859I$ $a = 0.282107 + 0.742434I$ $b = -0.83069 + 1.21010I$	$-13.64400 - 0.47981I$	0
$u = -0.79456 - 1.72859I$ $a = 0.282107 - 0.742434I$ $b = -0.83069 - 1.21010I$	$-13.64400 + 0.47981I$	0

II.

$\boldsymbol{I_2^u = \langle 1.37\times 10^{26}u^{32}+1.11\times 10^{24}u^{31}+\cdots+5.91\times 10^{25}b-2.91\times 10^{26},\ 6.79\times 10^{26}u^{32}+1.41\times 10^{27}u^{31}+\cdots+5.91\times 10^{25}a+1.02\times 10^{27},\ u^{33}+2u^{32}+\cdots+u+1\rangle}$

(i) Arc colorings

$$a_8 = \begin{pmatrix}1\\0\end{pmatrix}$$

$$a_{11} = \begin{pmatrix}0\\u\end{pmatrix}$$

$$a_3 = \begin{pmatrix}-11.4898u^{32}-23.7962u^{31}+\cdots-19.6646u-17.2920\\-2.32135u^{32}-0.0188023u^{31}+\cdots-6.53704u+4.91763\end{pmatrix}$$

$$a_9 = \begin{pmatrix}1\\-u^2\end{pmatrix}$$

$$a_4 = \begin{pmatrix}-7.62367u^{32}-14.8842u^{31}+\cdots-13.8953u-11.5579\\0.125656u^{32}+4.04410u^{31}+\cdots-1.49124u+6.09725\end{pmatrix}$$

$$a_{12} = \begin{pmatrix}u\\u\end{pmatrix}$$

$$a_7 = \begin{pmatrix}-15.9081u^{32}-24.5531u^{31}+\cdots-34.9229u-6.37675\\-2.42397u^{32}+2.28104u^{31}+\cdots-6.80221u+13.7117\end{pmatrix}$$

$$a_{10} = \begin{pmatrix}9.16850u^{32}+23.7774u^{31}+\cdots+13.1275u+22.2097\\11.2913u^{32}+15.1977u^{31}+\cdots+20.2165u-1.73829\end{pmatrix}$$

$$a_2 = \begin{pmatrix}-10.0196u^{32}-33.1577u^{31}+\cdots-9.74650u-40.8034\\-10.2925u^{32}-20.9387u^{31}+\cdots-11.1974u-14.2664\end{pmatrix}$$

$$a_1 = \begin{pmatrix}-3.85175u^{32}-11.9268u^{31}+\cdots+0.333681u-13.3131\\-5.65414u^{32}-9.63213u^{31}+\cdots-4.44352u-5.63441\end{pmatrix}$$

$$a_6 = \begin{pmatrix}-6.66231u^{32}-8.77963u^{31}+\cdots-12.1623u+2.66672\\-2.59325u^{32}+1.15214u^{31}+\cdots-3.64255u+11.7116\end{pmatrix}$$

$$a_5 = \begin{pmatrix}-6.66231u^{32}-8.77963u^{31}+\cdots-12.1623u+2.66672\\-2.56789u^{32}-0.602834u^{31}+\cdots-1.52523u+7.16661\end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{1061330718895418299219988138}{5910974402444371919364777 37}u^{32}+\frac{2552127737284134089230241489}{591097440244437191364777 37}u^{31}+\cdots+\frac{13780948593918338218425712}{591097440244437191364777 37}u+\frac{12285592834593461982389321 58}{591097440244437191364777 37}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{33} - 17u^{32} + \cdots + 207u - 11$
c_2	$u^{33} - 4u^{31} + \cdots + 233u + 49$
c_3	$u^{33} - 3u^{30} + \cdots - 2u + 1$
c_4	$u^{33} + u^{32} + \cdots + 7u + 9$
c_5	$u^{33} + u^{32} + \cdots - 2u + 1$
c_6	$u^{33} + 11u^{32} + \cdots + 10u + 1$
c_7	$u^{33} - 4u^{31} + \cdots + 4u + 1$
c_8	$u^{33} + 2u^{32} + \cdots + u + 1$
c_9	$u^{33} - 7u^{32} + \cdots - 5u - 1$
c_{10}	$u^{33} - 8u^{32} + \cdots - u + 1$
c_{11}	$u^{33} - 2u^{32} + \cdots + u - 1$
c_{12}	$u^{33} - 3u^{32} + \cdots - 5u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{33} - 25y^{32} + \cdots + 12093y - 121$
c_2	$y^{33} - 8y^{32} + \cdots - 52335y - 2401$
c_3	$y^{33} + 12y^{31} + \cdots - 6y - 1$
c_4	$y^{33} - 27y^{32} + \cdots + 1705y - 81$
c_5	$y^{33} + 11y^{32} + \cdots + 10y - 1$
c_6	$y^{33} - 21y^{32} + \cdots - 30y - 1$
c_7	$y^{33} - 8y^{32} + \cdots + 60y - 1$
c_8, c_{11}	$y^{33} + 16y^{32} + \cdots - 17y - 1$
c_9	$y^{33} - 5y^{32} + \cdots + 15y - 1$
c_{10}	$y^{33} + 10y^{32} + \cdots - 5y - 1$
c_{12}	$y^{33} + 29y^{32} + \cdots + 13y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.012880 + 0.889456I$ $a = -0.94758 + 1.84300I$ $b = -0.648750 + 0.307989I$	$-4.85180 - 1.92950I$	$-5.97096 + 3.69757I$
$u = \quad 0.012880 - 0.889456I$ $a = -0.94758 - 1.84300I$ $b = -0.648750 - 0.307989I$	$-4.85180 + 1.92950I$	$-5.97096 - 3.69757I$
$u = \quad 0.476577 + 0.747168I$ $a = -0.304791 - 0.528116I$ $b = -1.54549 + 0.66461I$	$2.06671 - 3.32759I$	$0.12323 + 2.24672I$
$u = \quad 0.476577 - 0.747168I$ $a = -0.304791 + 0.528116I$ $b = -1.54549 - 0.66461I$	$2.06671 + 3.32759I$	$0.12323 - 2.24672I$
$u = \quad 0.195546 + 1.153560I$ $a = -0.609618 + 1.185700I$ $b = -0.869755 + 0.820750I$	$-5.56358 + 3.04814I$	$-9.19089 - 2.79673I$
$u = \quad 0.195546 - 1.153560I$ $a = -0.609618 - 1.185700I$ $b = -0.869755 - 0.820750I$	$-5.56358 - 3.04814I$	$-9.19089 + 2.79673I$
$u = -0.726465 + 0.932827I$ $a = -0.877159 - 0.689248I$ $b = \quad 0.324689 - 0.171405I$	$-0.64494 - 2.83060I$	$-2.69137 + 4.70129I$
$u = -0.726465 - 0.932827I$ $a = -0.877159 + 0.689248I$ $b = \quad 0.324689 + 0.171405I$	$-0.64494 + 2.83060I$	$-2.69137 - 4.70129I$
$u = -1.154940 + 0.278264I$ $a = \quad 0.080762 + 0.507548I$ $b = \quad 0.254745 + 0.422242I$	$1.35997 - 1.47909I$	$17.4401 + 1.5741I$
$u = -1.154940 - 0.278264I$ $a = \quad 0.080762 - 0.507548I$ $b = \quad 0.254745 - 0.422242I$	$1.35997 + 1.47909I$	$17.4401 - 1.5741I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.597976 + 1.048060I$ $a = 0.38102 - 1.90037I$ $b = -1.36345 - 0.91938I$	$0.85933 + 7.68176I$	$0.70847 - 11.04624I$
$u = 0.597976 - 1.048060I$ $a = 0.38102 + 1.90037I$ $b = -1.36345 + 0.91938I$	$0.85933 - 7.68176I$	$0.70847 + 11.04624I$
$u = -1.26991$ $a = 0.344062$ $b = -0.137574$	1.07966	-9.75200
$u = -0.321557 + 0.627692I$ $a = 3.39088 + 0.84530I$ $b = 0.264134 + 1.157590I$	$-6.78711 + 2.51090I$	$-8.90550 + 1.68996I$
$u = -0.321557 - 0.627692I$ $a = 3.39088 - 0.84530I$ $b = 0.264134 - 1.157590I$	$-6.78711 - 2.51090I$	$-8.90550 - 1.68996I$
$u = -0.293467 + 0.596870I$ $a = -0.718358 - 0.905723I$ $b = 1.166720 - 0.499174I$	$2.29262 - 3.48730I$	$0.62393 + 2.53091I$
$u = -0.293467 - 0.596870I$ $a = -0.718358 + 0.905723I$ $b = 1.166720 + 0.499174I$	$2.29262 + 3.48730I$	$0.62393 - 2.53091I$
$u = -0.712438 + 1.142320I$ $a = -0.49774 - 1.34960I$ $b = 0.296372 - 1.112660I$	$-1.11209 - 4.44827I$	$8.64560 + 4.56497I$
$u = -0.712438 - 1.142320I$ $a = -0.49774 + 1.34960I$ $b = 0.296372 + 1.112660I$	$-1.11209 + 4.44827I$	$8.64560 - 4.56497I$
$u = -0.412899 + 0.475589I$ $a = -0.367973 + 1.100360I$ $b = 0.806962 + 0.402297I$	$1.30674 - 0.84646I$	$4.84555 + 1.89808I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.412899-0.475589I$ $a=-0.367973-1.100360I$ $b=\ 0.806962-0.402297I$	$1.30674+0.84646I$	$4.84555-1.89808I$
$u=\ 1.393230+0.186307I$ $a=\ 0.204507+0.031336I$ $b=-0.577269-0.457082I$	$4.36113+3.60822I$	$-4.0185-17.0285I$
$u=\ 1.393230-0.186307I$ $a=\ 0.204507-0.031336I$ $b=-0.577269+0.457082I$	$4.36113-3.60822I$	$-4.0185+17.0285I$
$u=\ 0.423933+0.393846I$ $a=\ 4.21051+2.46150I$ $b=\ 0.635550-0.926209I$	$-5.67765+6.04636I$	$-0.6201-16.1410I$
$u=\ 0.423933-0.393846I$ $a=\ 4.21051-2.46150I$ $b=\ 0.635550+0.926209I$	$-5.67765-6.04636I$	$-0.6201+16.1410I$
$u=\ 0.14108+1.47056I$ $a=\ 0.158663+1.043790I$ $b=\ 0.28693+1.46617I$	$-2.08926+2.22092I$	$6.72558+0.I$
$u=\ 0.14108-1.47056I$ $a=\ 0.158663-1.043790I$ $b=\ 0.28693-1.46617I$	$-2.08926-2.22092I$	$6.72558+0.I$
$u=\ 0.203834+0.448064I$ $a=-0.067561+0.746888I$ $b=-1.012040-0.429934I$	$-1.03642+6.77192I$	$-1.6278-14.7044I$
$u=\ 0.203834-0.448064I$ $a=-0.067561-0.746888I$ $b=-1.012040+0.429934I$	$-1.03642-6.77192I$	$-1.6278+14.7044I$
$u=-0.14402+1.54527I$ $a=-0.282865+1.214820I$ $b=-0.220290+1.194900I$	$-6.31528-6.22709I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.14402-1.54527I$ $a=-0.282865-1.214820I$ $b=-0.220290-1.194900I$	$-6.31528+6.22709I$	0
$u=-0.04432+1.55409I$ $a=\ \ 0.575266-0.524667I$ $b=\ \ 2.26972-0.85869I$	$-11.60690-4.42704I$	0
$u=-0.04432-1.55409I$ $a=\ \ 0.575266+0.524667I$ $b=\ \ 2.26972+0.85869I$	$-11.60690+4.42704I$	0

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{33}-17u^{32}+\cdots+207u-11)(u^{73}+6u^{72}+\cdots-63093u-11592)$
c_2	$(u^{33}-4u^{31}+\cdots+233u+49)$ $\cdot(u^{73}+3u^{72}+\cdots+20760218389u+1628977223)$
c_3	$(u^{33}-3u^{30}+\cdots-2u+1)(u^{73}+u^{72}+\cdots+56046u-10579)$
c_4	$(u^{33}+u^{32}+\cdots+7u+9)(u^{73}-2u^{72}+\cdots+285527u-23711)$
c_5	$(u^{33}+u^{32}+\cdots-2u+1)$ $\cdot(u^{73}+46u^{71}+\cdots+172232704u-28909568)$
c_6	$(u^{33}+11u^{32}+\cdots+10u+1)(u^{73}-8u^{72}+\cdots+26606u+4801)$
c_7	$(u^{33}-4u^{31}+\cdots+4u+1)(u^{73}-5u^{72}+\cdots-1326094u-293207)$
c_8	$(u^{33}+2u^{32}+\cdots+u+1)(u^{73}-u^{72}+\cdots-309u-43)$
c_9	$(u^{33}-7u^{32}+\cdots-5u-1)(u^{73}+4u^{72}+\cdots-19u-4)$
c_{10}	$(u^{33}-8u^{32}+\cdots-u+1)(u^{73}-5u^{72}+\cdots+9u-1)$
c_{11}	$(u^{33}-2u^{32}+\cdots+u-1)(u^{73}-u^{72}+\cdots-309u-43)$
c_{12}	$(u^{33}-3u^{32}+\cdots-5u+1)(u^{73}+45u^{71}+\cdots+241471u+54913)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{33} - 25y^{32} + \cdots + 12093y - 121)$ $\cdot (y^{73} - 88y^{72} + \cdots + 7315837785y - 134374464)$
c_2	$(y^{33} - 8y^{32} + \cdots - 52335y - 2401)$ $\cdot (y^{73} - 75y^{72} + \cdots + 5.45 \times 10^{20}y - 2.65 \times 10^{18})$
c_3	$(y^{33} + 12y^{31} + \cdots - 6y - 1)$ $\cdot (y^{73} + 25y^{72} + \cdots - 491484062y - 111915241)$
c_4	$(y^{33} - 27y^{32} + \cdots + 1705y - 81)$ $\cdot (y^{73} - 82y^{72} + \cdots + 5333119705y - 562211521)$
c_5	$(y^{33} + 11y^{32} + \cdots + 10y - 1)$ $\cdot (y^{73} + 92y^{72} + \cdots - 5265299779616768y - 835763121946624)$
c_6	$(y^{33} - 21y^{32} + \cdots - 30y - 1)$ $\cdot (y^{73} - 52y^{72} + \cdots - 10859270y - 23049601)$
c_7	$(y^{33} - 8y^{32} + \cdots + 60y - 1)$ $\cdot (y^{73} + 29y^{72} + \cdots - 2637873238424y - 85970344849)$
c_8, c_{11}	$(y^{33} + 16y^{32} + \cdots - 17y - 1)(y^{73} + 65y^{72} + \cdots - 4365y - 1849)$
c_9	$(y^{33} - 5y^{32} + \cdots + 15y - 1)(y^{73} + 4y^{72} + \cdots - 343y - 16)$
c_{10}	$(y^{33} + 10y^{32} + \cdots - 5y - 1)(y^{73} + 3y^{72} + \cdots - 49y - 1)$
c_{12}	$(y^{33} + 29y^{32} + \cdots + 13y - 1)$ $\cdot (y^{73} + 90y^{72} + \cdots + 125937776729y - 3015437569)$