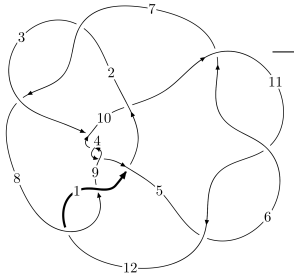
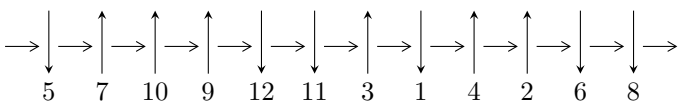
$12a_{1267}$ $(K12a_{1267})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 8.25299 \times 10^{186} u^{85} - 5.27253 \times 10^{186} u^{84} + \cdots + 1.79012 \times 10^{186} b + 8.66584 \times 10^{186}, \\ & - 1.26969 \times 10^{188} u^{85} + 1.78691 \times 10^{188} u^{84} + \cdots + 1.25308 \times 10^{187} a - 1.51944 \times 10^{188}, \\ & 3u^{86} - 3u^{85} + \cdots + 4u + 1 \rangle \\ I_2^u = \langle & 18u^{13} - 174u^{12} + \cdots + 89b - 27,\ 75u^{13} - 102u^{12} + \cdots + 89a - 157, \\ & 3u^{14} + 26u^{12} + 88u^{10} - u^9 + 145u^8 - 5u^7 + 117u^6 - 8u^5 + 40u^4 - 4u^3 + 5u^2 + 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 100 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. $\boldsymbol{I_1^u = \langle 8.25 \times 10^{186} u^{85} - 5.27 \times 10^{186} u^{84} + \cdots + 1.79 \times 10^{186} b + 8.67 \times 10^{186},\ -1.27 \times 10^{188} u^{85} + 1.79 \times 10^{188} u^{84} + \cdots + 1.25 \times 10^{187} a - 1.52 \times 10^{188},\ 3u^{86} - 3u^{85} + \cdots + 4u + 1 \rangle}$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_1 = \begin{pmatrix} 10.1325u^{85} - 14.2601u^{84} + \cdots + 33.2708u + 12.1256 \\ -4.61031u^{85} + 2.94535u^{84} + \cdots - 0.310845u - 4.84093 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 12.8237u^{85} - 16.0117u^{84} + \cdots + 31.4557u + 15.5907 \\ -3.45859u^{85} + 4.30170u^{84} + \cdots + 1.83913u - 4.52771 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -1.12037u^{85} + 0.720337u^{84} + \cdots + 17.0454u + 0.878741 \\ -2.47836u^{85} + 1.02170u^{84} + \cdots + 4.70916u - 6.99628 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} u^2 + 1 \\ u^2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -17.5488u^{85} + 22.2190u^{84} + \cdots + 16.4041u - 18.0315 \\ -4.97010u^{85} + 7.09366u^{84} + \cdots - 1.24274u - 5.11704 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -14.4489u^{85} + 18.7957u^{84} + \cdots + 18.7718u - 13.3281 \\ -6.11026u^{85} + 9.21618u^{84} + \cdots - 0.915132u - 4.68180 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -14.2020u^{85} + 17.7124u^{84} + \cdots - 7.96939u - 10.9258 \\ 0.953032u^{85} - 2.63390u^{84} + \cdots + 7.75357u + 2.84298 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.365418u^{85} + 0.299031u^{84} + \cdots - 12.0524u - 1.61229 \\ -3.84456u^{85} + 3.13245u^{84} + \cdots - 0.840605u - 6.14246 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 8.37795u^{85} - 7.06948u^{84} + \cdots - 60.2641u + 24.3494$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{86}+7u^{85}+\cdots+486114u+316869$
c_2, c_7	$u^{86}+3u^{85}+\cdots+148u+799$
c_3, c_4, c_9	$3(3u^{86}+3u^{85}+\cdots-4u+1)$
c_5, c_6, c_{11}	$3(3u^{86}-3u^{85}+\cdots+4u+1)$
c_8, c_{12}	$u^{86}-3u^{85}+\cdots-148u+799$
c_{10}	$u^{86}-7u^{85}+\cdots-486114u+316869$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_{10}	$y^{86} - 21y^{85} + \cdots - 1166956777638y + 100405963161$
c_2, c_7, c_8 c_{12}	$y^{86} - 57y^{85} + \cdots - 19180326y + 638401$
c_3, c_4, c_5 c_6, c_9, c_{11}	$9(9y^{86} + 873y^{85} + \cdots - 66y + 1)$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.487671+0.911543I$ $a=-0.520086-0.799977I$ $b=-0.439016-1.321780I$	$-1.064110+0.470205I$	0
$u=-0.487671-0.911543I$ $a=-0.520086+0.799977I$ $b=-0.439016+1.321780I$	$-1.064110-0.470205I$	0
$u=\ \ 0.856002+0.610688I$ $a=\ \ 0.628665-1.135580I$ $b=-0.261332-1.147530I$	$7.12197+12.14790I$	0
$u=\ \ 0.856002-0.610688I$ $a=\ \ 0.628665+1.135580I$ $b=-0.261332+1.147530I$	$7.12197-12.14790I$	0
$u=\ \ 0.963439+0.540998I$ $a=-1.023910+0.143235I$ $b=\ \ 0.096072+0.494800I$	$7.39198-6.24203I$	0
$u=\ \ 0.963439-0.540998I$ $a=-1.023910-0.143235I$ $b=\ \ 0.096072-0.494800I$	$7.39198+6.24203I$	0
$u=-0.921313+0.623699I$ $a=\ \ 0.669038+0.884005I$ $b=-0.402135+1.000600I$	$-7.67590I$	0
$u=-0.921313-0.623699I$ $a=\ \ 0.669038-0.884005I$ $b=-0.402135-1.000600I$	$7.67590I$	0
$u=\ \ 0.321220+0.803749I$ $a=\ \ 0.37667+1.46824I$ $b=-0.341366+0.788072I$	$4.70459+3.23509I$	0
$u=\ \ 0.321220-0.803749I$ $a=\ \ 0.37667-1.46824I$ $b=-0.341366-0.788072I$	$4.70459-3.23509I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.505194+0.690435I$ $a=-0.215663+0.821217I$ $b=-0.83631+1.34916I$	$9.33013+2.31543I$	0
$u=-0.505194-0.690435I$ $a=-0.215663-0.821217I$ $b=-0.83631-1.34916I$	$9.33013-2.31543I$	0
$u=0.431731+1.091580I$ $a=-0.014101-0.384619I$ $b=-0.607306-0.957724I$	$1.064110+0.470205I$	0
$u=0.431731-1.091580I$ $a=-0.014101+0.384619I$ $b=-0.607306+0.957724I$	$1.064110-0.470205I$	0
$u=0.560237+0.564254I$ $a=-0.77532+1.23875I$ $b=-0.291815+1.153590I$	$-3.23212+3.41317I$	0
$u=0.560237-0.564254I$ $a=-0.77532-1.23875I$ $b=-0.291815-1.153590I$	$-3.23212-3.41317I$	0
$u=-0.000759+1.241220I$ $a=0.557676+0.663407I$ $b=-0.981779+0.464477I$	$4.73562+2.64695I$	0
$u=-0.000759-1.241220I$ $a=0.557676-0.663407I$ $b=-0.981779-0.464477I$	$4.73562-2.64695I$	0
$u=-0.627267+0.407754I$ $a=-1.11760+0.99125I$ $b=0.262891+0.167185I$	$10.13040-6.27484I$	$6.40999+5.74696I$
$u=-0.627267-0.407754I$ $a=-1.11760-0.99125I$ $b=0.262891-0.167185I$	$10.13040+6.27484I$	$6.40999-5.74696I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.726981 + 0.084860I$ $a = 1.41693 + 0.38257I$ $b = 0.767837 + 0.216395I$	$7.23134 + 0.42251I$	$5.49191 + 0.I$
$u = 0.726981 - 0.084860I$ $a = 1.41693 - 0.38257I$ $b = 0.767837 - 0.216395I$	$7.23134 - 0.42251I$	$5.49191 + 0.I$
$u = -0.596524 + 0.422138I$ $a = -1.02316 - 1.47258I$ $b = -0.315235 - 1.281800I$	$2.30383 - 6.26437I$	$1.63409 + 7.43655I$
$u = -0.596524 - 0.422138I$ $a = -1.02316 + 1.47258I$ $b = -0.315235 + 1.281800I$	$2.30383 + 6.26437I$	$1.63409 - 7.43655I$
$u = 0.287124 + 1.241250I$ $a = -0.244566 + 0.741804I$ $b = -0.909415 + 0.192812I$	$3.16071 + 4.12903I$	0
$u = 0.287124 - 1.241250I$ $a = -0.244566 - 0.741804I$ $b = -0.909415 - 0.192812I$	$3.16071 - 4.12903I$	0
$u = -0.235693 + 1.263220I$ $a = 0.032254 - 0.400412I$ $b = -0.555856 - 0.007715I$	$-1.86105 - 3.25299I$	0
$u = -0.235693 - 1.263220I$ $a = 0.032254 + 0.400412I$ $b = -0.555856 + 0.007715I$	$-1.86105 + 3.25299I$	0
$u = 0.631478 + 0.271047I$ $a = -0.591175 - 1.013090I$ $b = 0.344397 - 0.092151I$	$3.23212 + 3.41317I$	$5.46052 - 6.79522I$
$u = 0.631478 - 0.271047I$ $a = -0.591175 + 1.013090I$ $b = 0.344397 + 0.092151I$	$3.23212 - 3.41317I$	$5.46052 + 6.79522I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.193356+0.653858I$ $a=\ \ 0.39714-1.66348I$ $b=-0.120691-0.722866I$	$-0.89196-2.61916I$	$-5.06104+7.35063I$
$u=-0.193356-0.653858I$ $a=\ \ 0.39714+1.66348I$ $b=-0.120691+0.722866I$	$-0.89196+2.61916I$	$-5.06104-7.35063I$
$u=-0.676515$ $a=\ \ 0.391689$ $b=\ \ 0.480875$	2.05833	4.89630
$u=-0.673175$ $a=\ \ 0.969085$ $b=\ \ 0.605912$	1.99887	7.65390
$u=-0.144636+1.328270I$ $a=\ \ 0.505549-0.495815I$ $b=-0.112467-0.581830I$	$-1.95971-2.93883I$	0
$u=-0.144636-1.328270I$ $a=\ \ 0.505549+0.495815I$ $b=-0.112467+0.581830I$	$-1.95971+2.93883I$	0
$u=\ \ 0.479835+0.420836I$ $a=\ \ 0.892610+1.003410I$ $b=\ \ 0.124839+0.664543I$	$6.00993+1.65203I$	$4.77572-3.95144I$
$u=\ \ 0.479835-0.420836I$ $a=\ \ 0.892610-1.003410I$ $b=\ \ 0.124839-0.664543I$	$6.00993-1.65203I$	$4.77572+3.95144I$
$u=-0.06042+1.41537I$ $a=-0.002140+0.690224I$ $b=-0.99592+4.19318I$	$3.28875-4.65753I$	0
$u=-0.06042-1.41537I$ $a=-0.002140-0.690224I$ $b=-0.99592-4.19318I$	$3.28875+4.65753I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.04706+1.42242I$ $a=\ 0.613070-1.016210I$ $b=\ 0.17258-2.46335I$	$-3.16071-4.12903I$	0
$u=-0.04706-1.42242I$ $a=\ 0.613070+1.016210I$ $b=\ 0.17258+2.46335I$	$-3.16071+4.12903I$	0
$u=\ 0.01657+1.43758I$ $a=\ 0.299100+1.063970I$ $b=-0.34288+2.97475I$	$-7.23134+0.42251I$	0
$u=\ 0.01657-1.43758I$ $a=\ 0.299100-1.063970I$ $b=-0.34288-2.97475I$	$-7.23134-0.42251I$	0
$u=\ 0.03499+1.44768I$ $a=\ 0.028434-0.897624I$ $b=-0.59814-3.42379I$	$-4.70459+3.23509I$	0
$u=\ 0.03499-1.44768I$ $a=\ 0.028434+0.897624I$ $b=-0.59814+3.42379I$	$-4.70459-3.23509I$	0
$u=\ 0.18665+1.43635I$ $a=\ 0.825892+0.184922I$ $b=\ 0.850357+0.231410I$	$-2.30383+6.26437I$	0
$u=\ 0.18665-1.43635I$ $a=\ 0.825892-0.184922I$ $b=\ 0.850357-0.231410I$	$-2.30383-6.26437I$	0
$u=\ 0.11480+1.44688I$ $a=-0.694209-0.053203I$ $b=-0.679675-0.653122I$	$3.69188I$	0
$u=\ 0.11480-1.44688I$ $a=-0.694209+0.053203I$ $b=-0.679675+0.653122I$	$-3.69188I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.283866+0.467353I$ $a=\ 1.79360+1.70928I$ $b=\ 0.239555+0.361758I$	$1.95971+2.93883I$	$-0.481864-0.328566I$
$u=-0.283866-0.467353I$ $a=\ 1.79360-1.70928I$ $b=\ 0.239555-0.361758I$	$1.95971-2.93883I$	$-0.481864+0.328566I$
$u=-0.03514+1.45912I$ $a=-0.566579+0.046761I$ $b=-0.219530+0.313848I$	$-6.00993-1.65203I$	0
$u=-0.03514-1.45912I$ $a=-0.566579-0.046761I$ $b=-0.219530-0.313848I$	$-6.00993+1.65203I$	0
$u=-0.20070+1.48548I$ $a=\ 0.971535+0.007856I$ $b=\ 1.236640+0.079684I$	$3.93602-9.24074I$	0
$u=-0.20070-1.48548I$ $a=\ 0.971535-0.007856I$ $b=\ 1.236640-0.079684I$	$3.93602+9.24074I$	0
$u=-0.21298+1.48636I$ $a=-0.237402+0.916328I$ $b=\ 0.86614+3.02599I$	$-3.93602-9.24074I$	0
$u=-0.21298-1.48636I$ $a=-0.237402-0.916328I$ $b=\ 0.86614-3.02599I$	$-3.93602+9.24074I$	0
$u=\ 0.02339+1.52036I$ $a=-0.211488-1.106500I$ $b=-0.43560-3.21969I$	$-4.73562+2.64695I$	0
$u=\ 0.02339-1.52036I$ $a=-0.211488+1.106500I$ $b=-0.43560+3.21969I$	$-4.73562-2.64695I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.19979 + 1.53163I$ $a = -0.172954 - 0.869817I$ $b = 0.68014 - 2.86249I$	$-10.13040 + 6.27484I$	0
$u = 0.19979 - 1.53163I$ $a = -0.172954 + 0.869817I$ $b = 0.68014 + 2.86249I$	$-10.13040 - 6.27484I$	0
$u = -0.223952 + 0.387967I$ $a = 0.618142 - 0.502973I$ $b = -0.169088 - 0.351297I$	$-0.900974I$	$0. + 7.50554I$
$u = -0.223952 - 0.387967I$ $a = 0.618142 + 0.502973I$ $b = -0.169088 + 0.351297I$	$0.900974I$	$0. - 7.50554I$
$u = 0.434522$ $a = 2.58762$ $b = 0.222757$	-2.05833	-4.89630
$u = -0.07485 + 1.56466I$ $a = -0.441297 + 0.905738I$ $b = -0.35616 + 2.76608I$	$-8.34474 - 3.71137I$	0
$u = -0.07485 - 1.56466I$ $a = -0.441297 - 0.905738I$ $b = -0.35616 - 2.76608I$	$-8.34474 + 3.71137I$	0
$u = 0.08170 + 1.59085I$ $a = -0.648395 - 0.893946I$ $b = -0.65822 - 2.54758I$	$-3.28875 + 4.65753I$	0
$u = 0.08170 - 1.59085I$ $a = -0.648395 + 0.893946I$ $b = -0.65822 + 2.54758I$	$-3.28875 - 4.65753I$	0
$u = 0.29800 + 1.57396I$ $a = 0.246710 + 0.935520I$ $b = -0.15569 + 3.07448I$	$16.4101I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.29800 - 1.57396I$ $a = 0.246710 - 0.935520I$ $b = -0.15569 - 3.07448I$	$-16.4101I$	0
$u = -0.30827 + 1.57408I$ $a = 0.140960 - 0.917038I$ $b = -0.17590 - 3.00993I$	$-7.12197 - 12.14790I$	0
$u = -0.30827 - 1.57408I$ $a = 0.140960 + 0.917038I$ $b = -0.17590 + 3.00993I$	$-7.12197 + 12.14790I$	0
$u = -0.17904 + 1.60291I$ $a = -0.112096 + 0.747783I$ $b = 0.52909 + 2.60371I$	$-9.33013 - 2.31543I$	0
$u = -0.17904 - 1.60291I$ $a = -0.112096 - 0.747783I$ $b = 0.52909 - 2.60371I$	$-9.33013 + 2.31543I$	0
$u = 0.34500 + 1.57965I$ $a = 0.006689 + 0.841214I$ $b = -0.15345 + 2.86415I$	$-7.39198 + 6.24203I$	0
$u = 0.34500 - 1.57965I$ $a = 0.006689 - 0.841214I$ $b = -0.15345 - 2.86415I$	$-7.39198 - 6.24203I$	0
$u = -0.282381 + 0.029712I$ $a = 4.00451 + 2.52429I$ $b = 0.421921 + 0.008830I$	$1.86105 - 3.25299I$	$5.47082 - 3.29014I$
$u = -0.282381 - 0.029712I$ $a = 4.00451 - 2.52429I$ $b = 0.421921 - 0.008830I$	$1.86105 + 3.25299I$	$5.47082 + 3.29014I$
$u = 0.150688 + 0.214643I$ $a = -0.98298 + 3.63099I$ $b = 0.681811 + 0.988825I$	$0.89196 + 2.61916I$	$5.06104 - 7.35063I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.150688 - 0.214643I$ $a = -0.98298 - 3.63099I$ $b = 0.681811 - 0.988825I$	$0.89196 - 2.61916I$	$5.06104 + 7.35063I$
$u = -0.229003 + 0.075392I$ $a = -2.35269 - 2.28645I$ $b = 1.19133 - 1.76013I$	$8.34474 - 3.71137I$	$7.0250 + 12.9569I$
$u = -0.229003 - 0.075392I$ $a = -2.35269 + 2.28645I$ $b = 1.19133 + 1.76013I$	$8.34474 + 3.71137I$	$7.0250 - 12.9569I$
$u = 0.161155$ $a = 7.85670$ $b = 0.573794$	-1.99887	-7.65390
$u = 0.01745 + 2.15189I$ $a = 0.020095 - 0.458120I$ $b = 0.20772 - 2.77676I$	$-0.140881I$	0
$u = 0.01745 - 2.15189I$ $a = 0.020095 + 0.458120I$ $b = 0.20772 + 2.77676I$	$0.140881I$	0

II. $I_2^u = \langle 18u^{13} - 174u^{12} + \cdots + 89b - 27,\ 75u^{13} - 102u^{12} + \cdots + 89a - 157,\ 3u^{14} + 26u^{12} + \cdots + 5u^2 + 1\rangle$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_1 = \begin{pmatrix} -0.842697u^{13} + 1.14607u^{12} + \cdots - 5.56180u + 1.76404 \\ -0.202247u^{13} + 1.95506u^{12} + \cdots - 2.13483u + 0.303371 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.438202u^{13} - 0.235955u^{12} + \cdots - 3.70787u + 1.84270 \\ 0.438202u^{13} - 0.235955u^{12} + \cdots - 1.70787u - 0.157303 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 3.84270u^{13} + 1.85393u^{12} + \cdots - 2.43820u + 2.23596 \\ 0.842697u^{13} + 1.85393u^{12} + \cdots + 2.56180u + 1.23596 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} u^2 + 1 \\ u^2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.471910u^{13} - 0.438202u^{12} + \cdots - 7.31461u + 2.70787 \\ -0.235955u^{13} - 1.71910u^{12} + \cdots - 1.15730u - 0.146067 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -1.04494u^{13} + 0.101124u^{12} + \cdots - 6.69663u + 2.06742 \\ -2.66292u^{13} - 2.25843u^{12} + \cdots - 1.77528u - 0.505618 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -1.75281u^{13} + 0.943820u^{12} + \cdots - 13.1685u + 1.62921 \\ 1.55056u^{13} - 1.98876u^{12} + \cdots + 0.0337079u - 1.32584 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -4.41573u^{13} - 1.31461u^{12} + \cdots + 1.05618u - 3.87640 \\ 0.370787u^{13} - 1.58427u^{12} + \cdots - 0.752809u - 1.05618 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -\frac{375}{89}u^{13} + \frac{777}{89}u^{12} - \frac{2929}{89}u^{11} + \frac{4610}{89}u^{10} - \frac{8245}{89}u^9 + \frac{8241}{89}u^8 - \frac{9589}{89}u^7 + \frac{1708}{89}u^6 - \frac{2626}{89}u^5 - \frac{7109}{89}u^4 + \frac{2607}{89}u^3 - \frac{4498}{89}u^2 + \frac{1263}{89}u - \frac{461}{89}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{14}+3u^{12}+\cdots-6u+3$
c_2, c_{12}	$u^{14}-2u^{13}+\cdots-2u+1$
c_3, c_4, c_{11}	$3(3u^{14}+26u^{12}+\cdots+5u^2+1)$
c_5, c_6, c_9	$3(3u^{14}+26u^{12}+\cdots+5u^2+1)$
c_7, c_8	$u^{14}+2u^{13}+\cdots+2u+1$
c_{10}	$u^{14}+3u^{12}+\cdots+6u+3$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_{10}	$y^{14} + 6y^{13} + \cdots + 138y + 9$
c_2, c_7, c_8 c_{12}	$y^{14} - 10y^{13} + \cdots - 10y + 1$
c_3, c_4, c_5 c_6, c_9, c_{11}	$9(9y^{14} + 156y^{13} + \cdots + 10y + 1)$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.049553+0.816998I$ $a=\ 0.622815+1.051080I$ $b=\ 0.255119+1.055430I$	$1.85654I$	$0.-2.13171I$
$u=-0.049553-0.816998I$ $a=\ 0.622815-1.051080I$ $b=\ 0.255119-1.055430I$	$-1.85654I$	$0.+2.13171I$
$u=-0.166900+1.243020I$ $a=\ 0.200539-0.505880I$ $b=-0.307932+0.212975I$	$-1.67379-3.65413I$	$2.66692+12.62316I$
$u=-0.166900-1.243020I$ $a=\ 0.200539+0.505880I$ $b=-0.307932-0.212975I$	$-1.67379+3.65413I$	$2.66692-12.62316I$
$u=\ 0.119392+1.297390I$ $a=\ 0.206627+0.369905I$ $b=-0.61057-1.43823I$	$4.75184+4.77157I$	$5.13799-5.06722I$
$u=\ 0.119392-1.297390I$ $a=\ 0.206627-0.369905I$ $b=-0.61057+1.43823I$	$4.75184-4.77157I$	$5.13799+5.06722I$
$u=-0.07305+1.52385I$ $a=-0.623956+1.010240I$ $b=-0.56152+2.77414I$	$-4.75184-4.77157I$	$-5.13799+5.06722I$
$u=-0.07305-1.52385I$ $a=-0.623956-1.010240I$ $b=-0.56152-2.77414I$	$-4.75184+4.77157I$	$-5.13799-5.06722I$
$u=\ 0.313574+0.311781I$ $a=\ 1.44019-0.55383I$ $b=\ 0.64911-1.78138I$	$8.19608-3.29147I$	$0.69516-3.25780I$
$u=\ 0.313574-0.311781I$ $a=\ 1.44019+0.55383I$ $b=\ 0.64911+1.78138I$	$8.19608+3.29147I$	$0.69516+3.25780I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \ \ 0.10498 + 1.57135I$ $a = -0.317975 - 0.874627I$ $b = -0.18321 - 2.77269I$	$-8.19608 + 3.29147I$	$-0.69516 + 3.25780I$
$u = \ \ 0.10498 - 1.57135I$ $a = -0.317975 + 0.874627I$ $b = -0.18321 + 2.77269I$	$-8.19608 - 3.29147I$	$-0.69516 - 3.25780I$
$u = -0.248446 + 0.321511I$ $a = -0.52824 - 3.56716I$ $b = -0.240997 - 0.492814I$	$1.67379 - 3.65413I$	$-2.66692 + 12.62316I$
$u = -0.248446 - 0.321511I$ $a = -0.52824 + 3.56716I$ $b = -0.240997 + 0.492814I$	$1.67379 + 3.65413I$	$-2.66692 - 12.62316I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{14}+3u^{12}+\cdots-6u+3)(u^{86}+7u^{85}+\cdots+486114u+316869)$
c_2	$(u^{14}-2u^{13}+\cdots-2u+1)(u^{86}+3u^{85}+\cdots+148u+799)$
c_3, c_4	$9(3u^{14}+26u^{12}+\cdots+5u^2+1)(3u^{86}+3u^{85}+\cdots-4u+1)$
c_5, c_6	$9(3u^{14}+26u^{12}+\cdots+5u^2+1)(3u^{86}-3u^{85}+\cdots+4u+1)$
c_7	$(u^{14}+2u^{13}+\cdots+2u+1)(u^{86}+3u^{85}+\cdots+148u+799)$
c_8	$(u^{14}+2u^{13}+\cdots+2u+1)(u^{86}-3u^{85}+\cdots-148u+799)$
c_9	$9(3u^{14}+26u^{12}+\cdots+5u^2+1)(3u^{86}+3u^{85}+\cdots-4u+1)$
c_{10}	$(u^{14}+3u^{12}+\cdots+6u+3)(u^{86}-7u^{85}+\cdots-486114u+316869)$
c_{11}	$9(3u^{14}+26u^{12}+\cdots+5u^2+1)(3u^{86}-3u^{85}+\cdots+4u+1)$
c_{12}	$(u^{14}-2u^{13}+\cdots-2u+1)(u^{86}-3u^{85}+\cdots-148u+799)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_{10}	$(y^{14}+6y^{13}+\cdots+138y+9)$ $\cdot(y^{86}-21y^{85}+\cdots-1166956777638y+100405963161)$
c_2, c_7, c_8 c_{12}	$(y^{14}-10y^{13}+\cdots-10y+1)$ $\cdot(y^{86}-57y^{85}+\cdots-19180326y+638401)$
c_3, c_4, c_5 c_6, c_9, c_{11}	$81(9y^{14}+156y^{13}+\cdots+10y+1)(9y^{86}+873y^{85}+\cdots-66y+1)$