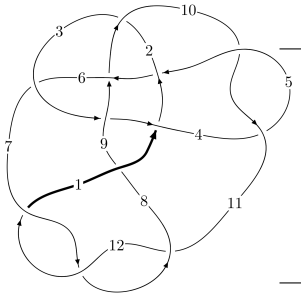
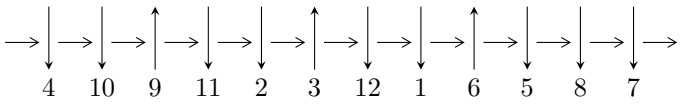
$12a_{1185}$ $(K12a_{1185})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 1.11343 \times 10^{206} u^{141} + 7.40241 \times 10^{206} u^{140} + \cdots + 6.56549 \times 10^{206} b + 6.12514 \times 10^{208}, \\ & - 3.17039 \times 10^{208} u^{141} + 3.40884 \times 10^{208} u^{140} + \cdots + 1.24744 \times 10^{208} a - 7.01718 \times 10^{209}, \\ & u^{142} + 65 u^{140} + \cdots + 79u + 19 \rangle \\ I_2^u = \langle & -4u^{24} + 2u^{23} + \cdots + b + 3,\ -16u^{24} - 7u^{23} + \cdots + a + 47,\ u^{25} + u^{24} + \cdots - 4u - 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 167 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. $\boldsymbol{I_1^u = \langle 1.11 \times 10^{206} u^{141} + 7.40 \times 10^{206} u^{140} + \cdots + 6.57 \times 10^{206} b + 6.13 \times 10^{208},\ -3.17 \times 10^{208} u^{141} + 3.41 \times 10^{208} u^{140} + \cdots + 1.25 \times 10^{208} a - 7.02 \times 10^{209},\ u^{142} + 65 u^{140} + \cdots + 79u + 19 \rangle}$

(i) Arc colorings

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

$$a_{12} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

$$a_1 = \begin{pmatrix} -u \\ u^3 + u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 2.54151u^{141} - 2.73266u^{140} + \cdots + 76.5272u + 56.2525 \\ -0.169589u^{141} - 1.12747u^{140} + \cdots - 204.010u - 93.2930 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -2.43322u^{141} + 2.31831u^{140} + \cdots - 72.4795u - 23.3362 \\ -1.75719u^{141} + 2.11532u^{140} + \cdots - 21.2865u - 16.5595 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u^4 - u^2 + 1 \\ u^6 + 2u^4 + u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 4.10649u^{141} - 2.52027u^{140} + \cdots + 221.136u + 119.028 \\ 0.548199u^{141} - 0.503020u^{140} + \cdots - 122.486u - 62.6947 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.928942u^{141} + 1.82621u^{140} + \cdots + 99.1463u + 52.5504 \\ -3.13792u^{141} + 2.98162u^{140} + \cdots - 61.4178u - 37.8642 \end{pmatrix}$$

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

$$a_5 = \begin{pmatrix} 4.82524u^{141} - 3.49571u^{140} + \cdots + 151.827u + 86.7511 \\ 2.11414u^{141} - 1.89052u^{140} + \cdots - 128.710u - 62.7943 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 8.26655u^{141} - 4.17721u^{140} + \cdots + 448.015u + 186.893 \\ 2.46556u^{141} - 2.77177u^{140} + \cdots - 192.455u - 99.7949 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 198.235u^{141} - 76.2003u^{140} + \cdots + 18676.8u + 8619.47$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{142}+3u^{141}+\cdots+25660u+1552$
c_2	$u^{142}-3u^{141}+\cdots+3363u-9621$
c_3	$u^{142}-u^{141}+\cdots+20522u-1087$
c_4, c_{10}	$u^{142}-u^{141}+\cdots-39669u-8231$
c_5	$u^{142}-2u^{141}+\cdots-22u+1$
c_6	$u^{142}-4u^{141}+\cdots-13583u-2209$
c_7, c_{11}, c_{12}	$u^{142}+65u^{140}+\cdots+79u+19$
c_8	$u^{142}-5u^{139}+\cdots-918747u+290111$
c_9	$u^{142}-5u^{141}+\cdots-30u-4$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{142} + 9y^{141} + \cdots - 198506608y + 2408704$
c_2	$y^{142} + 33y^{141} + \cdots + 5619168819y + 92563641$
c_3	$y^{142} + 7y^{141} + \cdots - 23640932y + 1181569$
c_4, c_{10}	$y^{142} + 91y^{141} + \cdots + 2568604727y + 67749361$
c_5	$y^{142} + 22y^{141} + \cdots - 108y + 1$
c_6	$y^{142} - 8y^{141} + \cdots - 159226929y + 4879681$
c_7, c_{11}, c_{12}	$y^{142} + 130y^{141} + \cdots - 3391y + 361$
c_8	$y^{142} + 48y^{140} + \cdots + 676166821071y + 84164392321$
c_9	$y^{142} + y^{141} + \cdots + 308y + 16$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.174055+0.972792I$ $a=\ 1.13546+1.26631I$ $b=\ 0.213062+1.135370I$	$0.15417+3.00552I$	0
$u=-0.174055-0.972792I$ $a=\ 1.13546-1.26631I$ $b=\ 0.213062-1.135370I$	$0.15417-3.00552I$	0
$u=-0.576373+0.859061I$ $a=-0.899351+0.405170I$ $b=-0.043856-0.230883I$	$3.29168-0.88987I$	0
$u=-0.576373-0.859061I$ $a=-0.899351-0.405170I$ $b=-0.043856+0.230883I$	$3.29168+0.88987I$	0
$u=-0.356081+0.885492I$ $a=\ 0.090876-1.372330I$ $b=\ 0.234041-0.386315I$	$-1.57123+4.66450I$	0
$u=-0.356081-0.885492I$ $a=\ 0.090876+1.372330I$ $b=\ 0.234041+0.386315I$	$-1.57123-4.66450I$	0
$u=\ 0.337165+0.880232I$ $a=-0.44299-1.50054I$ $b=-0.847248-0.424499I$	$-1.57542+5.20147I$	0
$u=\ 0.337165-0.880232I$ $a=-0.44299+1.50054I$ $b=-0.847248+0.424499I$	$-1.57542-5.20147I$	0
$u=-0.511808+0.786498I$ $a=\ 1.21144-1.10273I$ $b=\ 0.292622+0.143049I$	$2.74351-10.79950I$	0
$u=-0.511808-0.786498I$ $a=\ 1.21144+1.10273I$ $b=\ 0.292622-0.143049I$	$2.74351+10.79950I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.533098 + 0.756555I$ $a = -0.943932 - 0.943336I$ $b = -0.172542 + 0.320177I$	$4.17740 + 2.66753I$	0
$u = 0.533098 - 0.756555I$ $a = -0.943932 + 0.943336I$ $b = -0.172542 - 0.320177I$	$4.17740 - 2.66753I$	0
$u = -0.841285 + 0.306784I$ $a = 0.213661 + 0.256949I$ $b = 0.804634 - 0.897367I$	$1.57602 + 5.81227I$	0
$u = -0.841285 - 0.306784I$ $a = 0.213661 - 0.256949I$ $b = 0.804634 + 0.897367I$	$1.57602 - 5.81227I$	0
$u = -0.345187 + 1.051640I$ $a = -1.67103 + 0.42473I$ $b = -0.713812 - 0.123338I$	$1.77024 - 1.80840I$	0
$u = -0.345187 - 1.051640I$ $a = -1.67103 - 0.42473I$ $b = -0.713812 + 0.123338I$	$1.77024 + 1.80840I$	0
$u = -0.068764 + 1.137420I$ $a = -0.06703 + 2.34760I$ $b = -0.65565 + 1.99120I$	$-0.781789 + 0.146833I$	0
$u = -0.068764 - 1.137420I$ $a = -0.06703 - 2.34760I$ $b = -0.65565 - 1.99120I$	$-0.781789 - 0.146833I$	0
$u = -0.795014 + 0.304336I$ $a = -0.230248 - 0.310817I$ $b = -1.42055 + 1.02178I$	$1.1763 + 15.3660I$	0
$u = -0.795014 - 0.304336I$ $a = -0.230248 + 0.310817I$ $b = -1.42055 - 1.02178I$	$1.1763 - 15.3660I$	0

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$0.786923+0.312206I$		
$a=$	$0.018638-0.341669I$	$2.72275-7.22715I$	0
$b=$	$1.27663+0.91277I$		
$u=$	$0.786923-0.312206I$		
$a=$	$0.018638+0.341669I$	$2.72275+7.22715I$	0
$b=$	$1.27663-0.91277I$		
$u=$	$0.844094+0.041958I$		
$a=$	$0.040538+0.442418I$	$-2.06705+5.32893I$	0
$b=$	$0.519571-0.757023I$		
$u=$	$0.844094-0.041958I$		
$a=$	$0.040538-0.442418I$	$-2.06705-5.32893I$	0
$b=$	$0.519571+0.757023I$		
$u=$	$-0.782943+0.220151I$		
$a=$	$0.013266-0.208503I$	$-3.70212-0.47486I$	0
$b=$	$-1.158200+0.084694I$		
$u=$	$-0.782943-0.220151I$		
$a=$	$0.013266+0.208503I$	$-3.70212+0.47486I$	0
$b=$	$-1.158200-0.084694I$		
$u=$	$0.235609+1.170740I$		
$a=$	$0.130480-0.364998I$	$1.54848+0.94593I$	0
$b=$	$0.390627+0.025420I$		
$u=$	$0.235609-1.170740I$		
$a=$	$0.130480+0.364998I$	$1.54848-0.94593I$	0
$b=$	$0.390627-0.025420I$		
$u=$	$0.412086+1.126510I$		
$a=$	$0.461038-1.157240I$	$1.26907-9.81961I$	0
$b=$	$-0.582522-1.088710I$		
$u=$	$0.412086-1.126510I$		
$a=$	$0.461038+1.157240I$	$1.26907+9.81961I$	0
$b=$	$-0.582522+1.088710I$		

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.254377+1.176850I$ $a=\ 0.003247-1.401810I$ $b=\ 0.773222-0.895144I$	$2.22220+2.62980I$	0
$u=-0.254377-1.176850I$ $a=\ 0.003247+1.401810I$ $b=\ 0.773222+0.895144I$	$2.22220-2.62980I$	0
$u=\ 0.219631+1.185970I$ $a=\ 1.04945+1.66768I$ $b=\ 1.30300+1.28806I$	$-1.29585-1.11745I$	0
$u=\ 0.219631-1.185970I$ $a=\ 1.04945-1.66768I$ $b=\ 1.30300-1.28806I$	$-1.29585+1.11745I$	0
$u=\ 0.759399+0.228128I$ $a=\ 0.022365+0.314814I$ $b=\ 1.53675+0.03121I$	$-3.65601-9.26795I$	0
$u=\ 0.759399-0.228128I$ $a=\ 0.022365-0.314814I$ $b=\ 1.53675-0.03121I$	$-3.65601+9.26795I$	0
$u=-0.761357+0.167439I$ $a=\ 0.447181+0.166476I$ $b=\ 1.19140-1.30202I$	$-0.90067+5.85726I$	0
$u=-0.761357-0.167439I$ $a=\ 0.447181-0.166476I$ $b=\ 1.19140+1.30202I$	$-0.90067-5.85726I$	0
$u=\ 0.409078+1.164650I$ $a=-0.442972+0.154483I$ $b=\ 0.137302+0.558531I$	$1.71521+0.89999I$	0
$u=\ 0.409078-1.164650I$ $a=-0.442972-0.154483I$ $b=\ 0.137302-0.558531I$	$1.71521-0.89999I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.645504 + 0.408312I$ $a = -0.209626 + 0.955204I$ $b = -0.996395 - 0.051955I$	$-1.63352 - 2.00241I$	0
$u = 0.645504 - 0.408312I$ $a = -0.209626 - 0.955204I$ $b = -0.996395 + 0.051955I$	$-1.63352 + 2.00241I$	0
$u = 0.265669 + 0.715458I$ $a = 1.51827 + 1.21207I$ $b = 0.438576 + 0.389675I$	$0.36527 + 2.98078I$	0
$u = 0.265669 - 0.715458I$ $a = 1.51827 - 1.21207I$ $b = 0.438576 - 0.389675I$	$0.36527 - 2.98078I$	0
$u = 0.717874 + 0.255264I$ $a = -0.522373 + 0.071194I$ $b = -1.46414 - 1.04875I$	$-1.33895 - 6.73506I$	0
$u = 0.717874 - 0.255264I$ $a = -0.522373 - 0.071194I$ $b = -1.46414 + 1.04875I$	$-1.33895 + 6.73506I$	0
$u = -0.014781 + 1.250720I$ $a = 2.43752 + 0.18416I$ $b = 1.71375 - 0.16619I$	$5.81117 + 5.18320I$	0
$u = -0.014781 - 1.250720I$ $a = 2.43752 - 0.18416I$ $b = 1.71375 + 0.16619I$	$5.81117 - 5.18320I$	0
$u = 0.724193 + 0.178608I$ $a = -0.295872 - 0.572436I$ $b = -0.325525 - 0.319339I$	$-1.22360 - 4.51757I$	0
$u = 0.724193 - 0.178608I$ $a = -0.295872 + 0.572436I$ $b = -0.325525 + 0.319339I$	$-1.22360 + 4.51757I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.532726 + 0.503092I$ $a = -0.973548 - 0.549870I$ $b = 0.286092 + 0.678139I$	$3.43249 - 1.96165I$	0
$u = 0.532726 - 0.503092I$ $a = -0.973548 + 0.549870I$ $b = 0.286092 - 0.678139I$	$3.43249 + 1.96165I$	0
$u = -0.147133 + 1.276140I$ $a = -1.44340 - 0.15442I$ $b = -0.230016 - 0.523489I$	$4.66589 + 1.67554I$	0
$u = -0.147133 - 1.276140I$ $a = -1.44340 + 0.15442I$ $b = -0.230016 + 0.523489I$	$4.66589 - 1.67554I$	0
$u = -0.684540 + 0.197429I$ $a = 0.366121 - 0.249618I$ $b = 0.387064 + 0.757529I$	$-2.15344 + 0.42861I$	0
$u = -0.684540 - 0.197429I$ $a = 0.366121 + 0.249618I$ $b = 0.387064 - 0.757529I$	$-2.15344 - 0.42861I$	0
$u = -0.124470 + 1.301350I$ $a = -1.19386 - 1.16644I$ $b = -2.22445 - 0.90074I$	$6.87784 - 3.48818I$	0
$u = -0.124470 - 1.301350I$ $a = -1.19386 + 1.16644I$ $b = -2.22445 + 0.90074I$	$6.87784 + 3.48818I$	0
$u = 0.678322 + 0.099899I$ $a = -0.435487 - 0.353719I$ $b = -1.387350 - 0.094056I$	$-4.51698 - 2.16944I$	$-16.7924 + 3.8738I$
$u = 0.678322 - 0.099899I$ $a = -0.435487 + 0.353719I$ $b = -1.387350 + 0.094056I$	$-4.51698 + 2.16944I$	$-16.7924 - 3.8738I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.646181+0.219338I$ $a=0.548348-0.590771I$ $b=1.251050+0.417703I$	$-3.03809+2.58683I$	$-12.4216-7.2407I$
$u=-0.646181-0.219338I$ $a=0.548348+0.590771I$ $b=1.251050-0.417703I$	$-3.03809-2.58683I$	$-12.4216+7.2407I$
$u=-0.658705+0.126797I$ $a=0.350179+0.609774I$ $b=-1.201920-0.268143I$	$-0.964743+0.632201I$	$-3.74757+2.45853I$
$u=-0.658705-0.126797I$ $a=0.350179-0.609774I$ $b=-1.201920+0.268143I$	$-0.964743-0.632201I$	$-3.74757-2.45853I$
$u=-0.177530+1.324820I$ $a=-2.73669+2.23325I$ $b=-2.78738+0.49714I$	$5.02565+2.39791I$	0
$u=-0.177530-1.324820I$ $a=-2.73669-2.23325I$ $b=-2.78738-0.49714I$	$5.02565-2.39791I$	0
$u=0.267307+1.325290I$ $a=1.01302+1.78054I$ $b=1.11468+1.21265I$	$-0.03878-5.59505I$	0
$u=0.267307-1.325290I$ $a=1.01302-1.78054I$ $b=1.11468-1.21265I$	$-0.03878+5.59505I$	0
$u=0.590519+0.248398I$ $a=0.230764+0.167904I$ $b=-1.40037-1.34638I$	$3.62944-6.98778I$	$-3.51906+9.59302I$
$u=0.590519-0.248398I$ $a=0.230764-0.167904I$ $b=-1.40037+1.34638I$	$3.62944+6.98778I$	$-3.51906-9.59302I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.090390 + 1.356870I$ $a = -0.81885 - 1.55236I$ $b = -0.42067 - 1.51365I$	$6.50579 + 0.92837I$	0
$u = 0.090390 - 1.356870I$ $a = -0.81885 + 1.55236I$ $b = -0.42067 + 1.51365I$	$6.50579 - 0.92837I$	0
$u = -0.214055 + 1.350380I$ $a = -0.22677 + 2.19970I$ $b = -1.62831 + 2.31547I$	$5.76458 + 3.41030I$	0
$u = -0.214055 - 1.350380I$ $a = -0.22677 - 2.19970I$ $b = -1.62831 - 2.31547I$	$5.76458 - 3.41030I$	0
$u = -0.261631 + 1.348670I$ $a = 1.31111 - 1.08625I$ $b = 1.258180 + 0.007786I$	$3.71279 + 3.97751I$	0
$u = -0.261631 - 1.348670I$ $a = 1.31111 + 1.08625I$ $b = 1.258180 - 0.007786I$	$3.71279 - 3.97751I$	0
$u = -0.151044 + 1.369060I$ $a = 0.366201 - 1.362180I$ $b = 0.577899 - 0.812267I$	$3.59584 + 1.76063I$	0
$u = -0.151044 - 1.369060I$ $a = 0.366201 + 1.362180I$ $b = 0.577899 + 0.812267I$	$3.59584 - 1.76063I$	0
$u = 0.517952 + 0.344970I$ $a = -0.47977 - 1.38794I$ $b = 0.769924 + 0.323403I$	$3.48019 - 1.63556I$	$-0.65993 + 4.22871I$
$u = 0.517952 - 0.344970I$ $a = -0.47977 + 1.38794I$ $b = 0.769924 - 0.323403I$	$3.48019 + 1.63556I$	$-0.65993 - 4.22871I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.533280 + 0.315621I$ $a = 0.018193 - 1.021940I$ $b = 0.991986 + 0.669234I$	$3.39449 - 1.53761I$	$-1.42259 + 4.57774I$
$u = 0.533280 - 0.315621I$ $a = 0.018193 + 1.021940I$ $b = 0.991986 - 0.669234I$	$3.39449 + 1.53761I$	$-1.42259 - 4.57774I$
$u = -0.206414 + 1.367260I$ $a = 1.84259 + 0.60766I$ $b = 2.79075 + 0.49811I$	$8.18146 + 8.01100I$	0
$u = -0.206414 - 1.367260I$ $a = 1.84259 - 0.60766I$ $b = 2.79075 - 0.49811I$	$8.18146 - 8.01100I$	0
$u = -0.214975 + 1.374340I$ $a = 0.56767 - 3.47737I$ $b = 1.35241 - 3.58174I$	$8.04191 - 0.60263I$	0
$u = -0.214975 - 1.374340I$ $a = 0.56767 + 3.47737I$ $b = 1.35241 + 3.58174I$	$8.04191 + 0.60263I$	0
$u = -0.306626 + 1.363930I$ $a = -0.20026 + 2.72779I$ $b = -1.15326 + 2.68202I$	$3.94201 + 9.70679I$	0
$u = -0.306626 - 1.363930I$ $a = -0.20026 - 2.72779I$ $b = -1.15326 - 2.68202I$	$3.94201 - 9.70679I$	0
$u = 0.170329 + 1.392340I$ $a = 0.0142638 - 0.0363695I$ $b = 1.041630 + 0.392347I$	$9.77275 + 2.02763I$	0
$u = 0.170329 - 1.392340I$ $a = 0.0142638 + 0.0363695I$ $b = 1.041630 - 0.392347I$	$9.77275 - 2.02763I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.293611 + 1.373490I$ $a = -0.139322 + 1.083900I$ $b = -0.161472 + 0.910169I$	$3.70614 - 8.20920I$	0
$u = 0.293611 - 1.373490I$ $a = -0.139322 - 1.083900I$ $b = -0.161472 - 0.910169I$	$3.70614 + 8.20920I$	0
$u = -0.257068 + 1.384390I$ $a = -1.35015 + 1.08965I$ $b = -1.104560 + 0.486554I$	$2.06631 + 5.88892I$	0
$u = -0.257068 - 1.384390I$ $a = -1.35015 - 1.08965I$ $b = -1.104560 - 0.486554I$	$2.06631 - 5.88892I$	0
$u = -0.265761 + 1.383870I$ $a = -0.651958 + 0.038898I$ $b = -0.309566 - 0.182386I$	$2.88007 + 3.86348I$	0
$u = -0.265761 - 1.383870I$ $a = -0.651958 - 0.038898I$ $b = -0.309566 + 0.182386I$	$2.88007 - 3.86348I$	0
$u = 0.089464 + 1.407120I$ $a = 0.441486 - 1.040640I$ $b = 1.24915 - 0.81965I$	$6.64054 + 1.96862I$	0
$u = 0.089464 - 1.407120I$ $a = 0.441486 + 1.040640I$ $b = 1.24915 + 0.81965I$	$6.64054 - 1.96862I$	0
$u = 0.236349 + 1.390880I$ $a = 0.50769 + 2.82174I$ $b = 1.55621 + 2.52684I$	$8.84922 - 10.03900I$	0
$u = 0.236349 - 1.390880I$ $a = 0.50769 - 2.82174I$ $b = 1.55621 - 2.52684I$	$8.84922 + 10.03900I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.01955+1.41460I$ $a=\ \ 0.901411-0.108757I$ $b=\ \ 0.702662-0.553494I$	$5.50883+5.07286I$	0
$u=-0.01955-1.41460I$ $a=\ \ 0.901411+0.108757I$ $b=\ \ 0.702662+0.553494I$	$5.50883-5.07286I$	0
$u=-0.32813+1.38150I$ $a=\ \ 0.83211-1.24075I$ $b=\ \ 1.43535-0.81046I$	$1.36657+3.54768I$	0
$u=-0.32813-1.38150I$ $a=\ \ 0.83211+1.24075I$ $b=\ \ 1.43535+0.81046I$	$1.36657-3.54768I$	0
$u=\ \ 0.21882+1.40409I$ $a=-0.95637-2.03863I$ $b=-1.82648-2.09488I$	$8.84832-4.35386I$	0
$u=\ \ 0.21882-1.40409I$ $a=-0.95637+2.03863I$ $b=-1.82648+2.09488I$	$8.84832+4.35386I$	0
$u=\ \ 0.30719+1.39264I$ $a=-1.28841-1.48752I$ $b=-1.63025-0.65114I$	$1.49041-13.12850I$	0
$u=\ \ 0.30719-1.39264I$ $a=-1.28841+1.48752I$ $b=-1.63025+0.65114I$	$1.49041+13.12850I$	0
$u=\ \ 0.16501+1.41845I$ $a=-0.596364-0.626847I$ $b=-1.58440-0.70261I$	$9.47746-4.27141I$	0
$u=\ \ 0.16501-1.41845I$ $a=-0.596364+0.626847I$ $b=-1.58440+0.70261I$	$9.47746+4.27141I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \ 0.20507 + 1.41349I$ $a = -1.42751 - 1.21058I$ $b = -2.37498 - 1.30592I$	$9.07021 - 4.32822I$	0
$u = \ 0.20507 - 1.41349I$ $a = -1.42751 + 1.21058I$ $b = -2.37498 + 1.30592I$	$9.07021 + 4.32822I$	0
$u = -0.535961 + 0.197293I$ $a = -0.928142 - 0.299777I$ $b = -1.41912 + 1.52481I$	$3.02932 - 3.38842I$	$-4.20859 + 0.66308I$
$u = -0.535961 - 0.197293I$ $a = -0.928142 + 0.299777I$ $b = -1.41912 - 1.52481I$	$3.02932 + 3.38842I$	$-4.20859 - 0.66308I$
$u = \ 0.28547 + 1.40322I$ $a = \ 0.69469 + 2.75890I$ $b = \ 1.49463 + 2.62609I$	$3.94441 - 10.38100I$	0
$u = \ 0.28547 - 1.40322I$ $a = \ 0.69469 - 2.75890I$ $b = \ 1.49463 - 2.62609I$	$3.94441 + 10.38100I$	0
$u = -0.533864 + 0.110524I$ $a = -0.09491 + 1.80554I$ $b = \ 0.83694 - 1.34375I$	$1.093150 + 0.650033I$	$-17.4107 + 4.1974I$
$u = -0.533864 - 0.110524I$ $a = -0.09491 - 1.80554I$ $b = \ 0.83694 + 1.34375I$	$1.093150 - 0.650033I$	$-17.4107 - 4.1974I$
$u = \ 0.31303 + 1.43436I$ $a = -0.79632 - 2.08564I$ $b = -1.85441 - 1.90767I$	$8.29744 - 11.21590I$	0
$u = \ 0.31303 - 1.43436I$ $a = -0.79632 + 2.08564I$ $b = -1.85441 + 1.90767I$	$8.29744 + 11.21590I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.31700+1.43384I$ $a=\ \ 0.85809-2.36407I$ $b=\ \ 1.91209-2.22141I$	$6.7256+19.3962I$	0
$u=-0.31700-1.43384I$ $a=\ \ 0.85809+2.36407I$ $b=\ \ 1.91209+2.22141I$	$6.7256-19.3962I$	0
$u=-0.33559+1.44074I$ $a=-0.34664+1.77446I$ $b=-1.17465+1.83979I$	$7.15335+10.06300I$	0
$u=-0.33559-1.44074I$ $a=-0.34664-1.77446I$ $b=-1.17465-1.83979I$	$7.15335-10.06300I$	0
$u=-0.486274+0.157896I$ $a=\ \ 0.72103-2.98813I$ $b=-0.311293-0.652421I$	$3.28649+5.38821I$	$-5.91409-11.96451I$
$u=-0.486274-0.157896I$ $a=\ \ 0.72103+2.98813I$ $b=-0.311293+0.652421I$	$3.28649-5.38821I$	$-5.91409+11.96451I$
$u=\ \ 0.25757+1.46857I$ $a=\ \ 1.39487+1.22410I$ $b=\ \ 2.12536+1.26461I$	$4.41491-5.36136I$	0
$u=\ \ 0.25757-1.46857I$ $a=\ \ 1.39487-1.22410I$ $b=\ \ 2.12536-1.26461I$	$4.41491+5.36136I$	0
$u=\ \ 0.377171+0.324914I$ $a=\ \ 1.55944+2.24003I$ $b=\ \ 0.361775-0.359617I$	$4.37528+4.17810I$	$-0.370262+0.306283I$
$u=\ \ 0.377171-0.324914I$ $a=\ \ 1.55944-2.24003I$ $b=\ \ 0.361775+0.359617I$	$4.37528-4.17810I$	$-0.370262-0.306283I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.494669$ $a=-2.53076$ $b=\ \ 3.51200$	0.793446	-460.300
$u=-0.06253+1.52401I$ $a=\ \ 0.670031+0.192867I$ $b=\ \ 1.55350-0.09774I$	$10.46320-9.17580I$	0
$u=-0.06253-1.52401I$ $a=\ \ 0.670031-0.192867I$ $b=\ \ 1.55350+0.09774I$	$10.46320+9.17580I$	0
$u=\ \ 0.007209+0.466548I$ $a=\ \ 0.897076-0.681843I$ $b=\ \ 0.574146+0.303517I$	$1.17692+1.56971I$	$-0.36078-2.79316I$
$u=\ \ 0.007209-0.466548I$ $a=\ \ 0.897076+0.681843I$ $b=\ \ 0.574146-0.303517I$	$1.17692-1.56971I$	$-0.36078+2.79316I$
$u=-0.185666+0.396816I$ $a=\ \ 0.73777+1.55682I$ $b=-0.310566+0.675556I$	$-1.58289+0.23561I$	$-8.78494-1.39423I$
$u=-0.185666-0.396816I$ $a=\ \ 0.73777-1.55682I$ $b=-0.310566-0.675556I$	$-1.58289-0.23561I$	$-8.78494+1.39423I$
$u=\ \ 0.05316+1.56191I$ $a=-0.525333-0.184304I$ $b=-1.304880-0.391759I$	$12.02970+0.78418I$	0
$u=\ \ 0.05316-1.56191I$ $a=-0.525333+0.184304I$ $b=-1.304880+0.391759I$	$12.02970-0.78418I$	0
$u=-0.436484$ $a=\ \ 0.725456$ $b=-0.597977$	-0.894312	-11.9720

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.01195+1.61765I$ $a=-0.531051-0.159140I$ $b=-1.224870-0.251225I$	$11.94010+0.81369I$	0
$u=-0.01195-1.61765I$ $a=-0.531051+0.159140I$ $b=-1.224870+0.251225I$	$11.94010-0.81369I$	0

II. $I_2^u =$
$\langle -4u^{24}+2u^{23}+\cdots+b+3,\ -16u^{24}-7u^{23}+\cdots+a+47,\ u^{25}+u^{24}+\cdots-4u-1\rangle$

(i) Arc colorings

$$a_8 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_{12} = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_7 = \begin{pmatrix}1\\-u^2\end{pmatrix}$$
$$a_1 = \begin{pmatrix}-u\\u^3+u\end{pmatrix}$$
$$a_4 = \begin{pmatrix}16u^{24}+7u^{23}+\cdots-31u-47\\4u^{24}-2u^{23}+\cdots+9u-3\end{pmatrix}$$
$$a_2 = \begin{pmatrix}-8u^{24}+u^{23}+\cdots+12u+12\\-9u^{24}-u^{23}+\cdots+10u+18\end{pmatrix}$$
$$a_9 = \begin{pmatrix}-u^4-u^2+1\\u^6+2u^4+u^2\end{pmatrix}$$
$$a_3 = \begin{pmatrix}16u^{24}+8u^{23}+\cdots-37u-48\\4u^{24}-u^{23}+\cdots+5u-4\end{pmatrix}$$
$$a_6 = \begin{pmatrix}-11u^{24}-u^{23}+\cdots+16u+29\\-5u^{24}+4u^{23}+\cdots-3u+11\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}u\\u\end{pmatrix}$$
$$a_5 = \begin{pmatrix}19u^{24}+6u^{23}+\cdots-31u-50\\7u^{24}-3u^{23}+\cdots+9u-6\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}-4u^{24}-53u^{22}+\cdots+7u+18\\3u^{24}+3u^{23}+\cdots-16u-11\end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes
$= 36u^{24}+54u^{23}+502u^{22}+675u^{21}+3037u^{20}+3644u^{19}+10399u^{18}+11064u^{17}+21955u^{16}+20539u^{15}+28990u^{14}+23603u^{13}+22814u^{12}+15997u^{11}+9046u^{10}+5429u^9+1020u^8+474u^7+710u^6+117u^5+1232u^4+295u^3+446u^2+130u-11$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{25} - 10u^{24} + \cdots - 2u + 1$
c_2	$u^{25} + 3u^{23} + \cdots - 2u + 1$
c_3	$u^{25} - 8u^{23} + \cdots + u + 1$
c_4	$u^{25} + 4u^{23} + \cdots - 3u^2 + 1$
c_5	$u^{25} - 3u^{24} + \cdots + 17u + 1$
c_6	$u^{25} + 3u^{24} + \cdots - 11u^2 - 1$
c_7	$u^{25} + u^{24} + \cdots - 4u - 1$
c_8	$u^{25} - u^{24} + \cdots - 6u - 1$
c_9	$u^{25} + 2u^{24} + \cdots + 2u - 1$
c_{10}	$u^{25} + 4u^{23} + \cdots + 3u^2 - 1$
c_{11}, c_{12}	$u^{25} - u^{24} + \cdots - 4u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{25} + 14y^{24} + \cdots + 36y - 1$
c_2	$y^{25} + 6y^{24} + \cdots - 6y - 1$
c_3	$y^{25} - 16y^{24} + \cdots - 27y - 1$
c_4, c_{10}	$y^{25} + 8y^{24} + \cdots + 6y - 1$
c_5	$y^{25} + 15y^{24} + \cdots + 97y - 1$
c_6	$y^{25} + 9y^{24} + \cdots - 22y - 1$
c_7, c_{11}, c_{12}	$y^{25} + 27y^{24} + \cdots + 20y - 1$
c_8	$y^{25} + 13y^{24} + \cdots + 14y - 1$
c_9	$y^{25} - 14y^{24} + \cdots - 4y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.438576+0.990950I$ $a=-1.237410+0.300917I$ $b=-0.398511-0.312584I$	$2.55487-1.83184I$	$-0.38819+5.69082I$
$u=-0.438576-0.990950I$ $a=-1.237410-0.300917I$ $b=-0.398511+0.312584I$	$2.55487+1.83184I$	$-0.38819-5.69082I$
$u=\ 0.207052+0.792790I$ $a=-1.251620+0.527333I$ $b=\ 0.291822+0.650460I$	$2.94173-0.92171I$	$-3.21958+0.60365I$
$u=\ 0.207052-0.792790I$ $a=-1.251620-0.527333I$ $b=\ 0.291822-0.650460I$	$2.94173+0.92171I$	$-3.21958-0.60365I$
$u=\ 0.137544+1.175050I$ $a=\ 0.29713+2.02545I$ $b=\ 0.71613+1.88035I$	$-0.450079-1.197100I$	$-3.59315+4.98475I$
$u=\ 0.137544-1.175050I$ $a=\ 0.29713-2.02545I$ $b=\ 0.71613-1.88035I$	$-0.450079+1.197100I$	$-3.59315-4.98475I$
$u=-0.779999+0.201489I$ $a=\ 0.261276+0.044697I$ $b=\ 0.97741-1.19435I$	$0.13599+6.19259I$	$-4.64255-8.60606I$
$u=-0.779999-0.201489I$ $a=\ 0.261276-0.044697I$ $b=\ 0.97741+1.19435I$	$0.13599-6.19259I$	$-4.64255+8.60606I$
$u=\ 0.165179+1.321910I$ $a=-2.54933-1.51886I$ $b=-2.27655-0.10768I$	$5.00421-2.31932I$	$-24.7590-20.4796I$
$u=\ 0.165179-1.321910I$ $a=-2.54933+1.51886I$ $b=-2.27655+0.10768I$	$5.00421+2.31932I$	$-24.7590+20.4796I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.603954 + 0.242304I$ $a = -0.668781 + 0.062777I$ $b = -0.927894 + 0.434228I$	$-3.07395 - 1.34380I$	$-13.45604 + 1.50928I$
$u = 0.603954 - 0.242304I$ $a = -0.668781 - 0.062777I$ $b = -0.927894 - 0.434228I$	$-3.07395 + 1.34380I$	$-13.45604 - 1.50928I$
$u = -0.131031 + 1.351120I$ $a = -0.11456 - 1.77551I$ $b = -1.03064 - 1.46742I$	$7.86708 - 3.04557I$	$2.67676 + 4.33303I$
$u = -0.131031 - 1.351120I$ $a = -0.11456 + 1.77551I$ $b = -1.03064 + 1.46742I$	$7.86708 + 3.04557I$	$2.67676 - 4.33303I$
$u = -0.125532 + 1.383090I$ $a = 1.99588 - 0.42794I$ $b = 2.93227 - 0.37131I$	$8.11268 + 6.27728I$	$-0.35560 - 6.07004I$
$u = -0.125532 - 1.383090I$ $a = 1.99588 + 0.42794I$ $b = 2.93227 + 0.37131I$	$8.11268 - 6.27728I$	$-0.35560 + 6.07004I$
$u = -0.30661 + 1.38290I$ $a = -0.04938 + 2.46923I$ $b = -0.88873 + 2.39801I$	$5.16196 + 10.09520I$	$0. - 9.19192I$
$u = -0.30661 - 1.38290I$ $a = -0.04938 - 2.46923I$ $b = -0.88873 - 2.39801I$	$5.16196 - 10.09520I$	$0. + 9.19192I$
$u = 0.26000 + 1.40376I$ $a = 1.109590 + 0.851244I$ $b = 1.180270 + 0.556568I$	$2.21925 - 4.56767I$	$-7.13222 + 4.17730I$
$u = 0.26000 - 1.40376I$ $a = 1.109590 - 0.851244I$ $b = 1.180270 - 0.556568I$	$2.21925 + 4.56767I$	$-7.13222 - 4.17730I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.486788$ $a = -2.37254$ $b = \quad 3.25704$	0.803941	309.030
$u = -0.02412 + 1.64484I$ $a = -0.552393 + 0.086825I$ $b = -1.197960 + 0.233205I$	$11.78380 - 0.95801I$	$-18.7111 + 15.8069I$
$u = -0.02412 - 1.64484I$ $a = -0.552393 - 0.086825I$ $b = -1.197960 - 0.233205I$	$11.78380 + 0.95801I$	$-18.7111 - 15.8069I$
$u = -0.311256 + 0.012761I$ $a = -0.05413 - 4.53924I$ $b = -1.006140 - 0.511601I$	$3.39865 + 4.69659I$	$-5.57576 - 2.72785I$
$u = -0.311256 - 0.012761I$ $a = -0.05413 + 4.53924I$ $b = -1.006140 + 0.511601I$	$3.39865 - 4.69659I$	$-5.57576 + 2.72785I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{25}-10u^{24}+\cdots-2u+1)(u^{142}+3u^{141}+\cdots+25660u+1552)$
c_2	$(u^{25}+3u^{23}+\cdots-2u+1)(u^{142}-3u^{141}+\cdots+3363u-9621)$
c_3	$(u^{25}-8u^{23}+\cdots+u+1)(u^{142}-u^{141}+\cdots+20522u-1087)$
c_4	$(u^{25}+4u^{23}+\cdots-3u^2+1)(u^{142}-u^{141}+\cdots-39669u-8231)$
c_5	$(u^{25}-3u^{24}+\cdots+17u+1)(u^{142}-2u^{141}+\cdots-22u+1)$
c_6	$(u^{25}+3u^{24}+\cdots-11u^2-1)(u^{142}-4u^{141}+\cdots-13583u-2209)$
c_7	$(u^{25}+u^{24}+\cdots-4u-1)(u^{142}+65u^{140}+\cdots+79u+19)$
c_8	$(u^{25}-u^{24}+\cdots-6u-1)(u^{142}-5u^{139}+\cdots-918747u+290111)$
c_9	$(u^{25}+2u^{24}+\cdots+2u-1)(u^{142}-5u^{141}+\cdots-30u-4)$
c_{10}	$(u^{25}+4u^{23}+\cdots+3u^2-1)(u^{142}-u^{141}+\cdots-39669u-8231)$
c_{11}, c_{12}	$(u^{25}-u^{24}+\cdots-4u+1)(u^{142}+65u^{140}+\cdots+79u+19)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{25}+14y^{24}+\cdots+36y-1)$ $\cdot(y^{142}+9y^{141}+\cdots-198506608y+2408704)$
c_2	$(y^{25}+6y^{24}+\cdots-6y-1)$ $\cdot(y^{142}+33y^{141}+\cdots+5619168819y+92563641)$
c_3	$(y^{25}-16y^{24}+\cdots-27y-1)$ $\cdot(y^{142}+7y^{141}+\cdots-23640932y+1181569)$
c_4, c_{10}	$(y^{25}+8y^{24}+\cdots+6y-1)$ $\cdot(y^{142}+91y^{141}+\cdots+2568604727y+67749361)$
c_5	$(y^{25}+15y^{24}+\cdots+97y-1)(y^{142}+22y^{141}+\cdots-108y+1)$
c_6	$(y^{25}+9y^{24}+\cdots-22y-1)$ $\cdot(y^{142}-8y^{141}+\cdots-159226929y+4879681)$
c_7, c_{11}, c_{12}	$(y^{25}+27y^{24}+\cdots+20y-1)(y^{142}+130y^{141}+\cdots-3391y+361)$
c_8	$(y^{25}+13y^{24}+\cdots+14y-1)$ $\cdot(y^{142}+48y^{140}+\cdots+676166821071y+84164392321)$
c_9	$(y^{25}-14y^{24}+\cdots-4y-1)(y^{142}+y^{141}+\cdots+308y+16)$