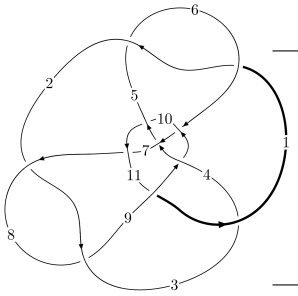
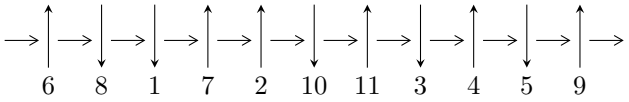
$11a_{287}$ $(K11a_{287})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & -1.31991 \times 10^{746} u^{112} - 1.15098 \times 10^{747} u^{111} + \cdots + 2.65444 \times 10^{744} b - 2.87498 \times 10^{746}, \\ & - 9.84912 \times 10^{745} u^{112} - 8.43713 \times 10^{746} u^{111} + \cdots + 2.65444 \times 10^{744} a - 4.32696 \times 10^{746}, \\ & 2u^{113} + 17u^{112} + \cdots + 38u - 1 \rangle \\ I_2^u = \langle & -4.34765 \times 10^{21} u^{22} + 1.82305 \times 10^{22} u^{21} + \cdots + 8.15827 \times 10^{21} b - 4.13706 \times 10^{21}, \\ & - 6.81911 \times 10^{21} u^{22} + 2.53600 \times 10^{22} u^{21} + \cdots + 8.15827 \times 10^{21} a + 2.28717 \times 10^{22}, \\ & 2u^{23} - 7u^{22} + \cdots + 3u + 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 136 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. $\boldsymbol{I_1^u = \langle -1.32 \times 10^{746} u^{112} - 1.15 \times 10^{747} u^{111} + \cdots + 2.65 \times 10^{744} b - 2.87 \times 10^{746},\ -9.85 \times 10^{745} u^{112} - 8.44 \times 10^{746} u^{111} + \cdots + 2.65 \times 10^{744} a - 4.33 \times 10^{746},\ 2u^{113} + 17u^{112} + \cdots + 38u - 1 \rangle}$

(i) Arc colorings

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

$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 37.1043u^{112} + 317.849u^{111} + \cdots - 4823.04u + 163.008 \\ 49.7246u^{112} + 433.605u^{111} + \cdots - 3699.30u + 108.308 \end{pmatrix}$$

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

$$a_1 = \begin{pmatrix} -12.6203u^{112} - 115.756u^{111} + \cdots - 1123.74u + 54.7001 \\ 49.7246u^{112} + 433.605u^{111} + \cdots - 3699.30u + 108.308 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.136870u^{112} + 4.95263u^{111} + \cdots + 2305.82u - 102.081 \\ -99.8080u^{112} - 870.054u^{111} + \cdots + 7586.47u - 224.356 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -23.6821u^{112} - 208.417u^{111} + \cdots + 698.157u - 22.7715 \\ 42.0949u^{112} + 366.618u^{111} + \cdots - 3367.23u + 102.917 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 66.2163u^{112} + 577.421u^{111} + \cdots - 4482.24u + 140.302 \\ -14.9640u^{112} - 129.901u^{111} + \cdots + 1367.37u - 43.9146 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 100.959u^{112} + 883.832u^{111} + \cdots - 5352.58u + 124.169 \\ -95.0988u^{112} - 829.016u^{111} + \cdots + 7221.01u - 213.412 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -30.8817u^{112} - 269.197u^{111} + \cdots + 2131.38u - 61.3693 \\ 18.4765u^{112} + 160.902u^{111} + \cdots - 1475.59u + 44.6165 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -116.397u^{112} - 1015.66u^{111} + \cdots + 8163.59u - 250.723 \\ 43.4862u^{112} + 378.579u^{111} + \cdots - 3531.54u + 108.332 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -116.397u^{112} - 1015.66u^{111} + \cdots + 8163.59u - 250.723 \\ 43.4862u^{112} + 378.579u^{111} + \cdots - 3531.54u + 108.332 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 600.198u^{112} + 5230.51u^{111} + \cdots - 46114.1u + 1380.67$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$2(2u^{113} + u^{112} + \cdots - u - 1)$
c_2, c_8	$u^{113} - 2u^{112} + \cdots - 3534u + 4993$
c_3	$u^{113} - 3u^{112} + \cdots - 1271u + 44$
c_4	$u^{113} + 13u^{112} + \cdots - 4u - 1$
c_6	$2(2u^{113} + 17u^{112} + \cdots + 38u - 1)$
c_7	$u^{113} + u^{112} + \cdots - 34861u + 12214$
c_9	$u^{113} + 2u^{112} + \cdots + 26104u + 13016$
c_{10}	$2(2u^{113} + 3u^{112} + \cdots + 23u + 1)$
c_{11}	$4(4u^{113} - 35u^{112} + \cdots + 12u + 1)$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$4(4y^{113} + 255y^{112} + \cdots - 31y - 1)$
c_2, c_8	$y^{113} - 78y^{112} + \cdots + 591816960y - 24930049$
c_3	$y^{113} - 11y^{112} + \cdots + 228913y - 1936$
c_4	$y^{113} - 11y^{112} + \cdots - 158y - 1$
c_6	$4(4y^{113} + 47y^{112} + \cdots + 270y - 1)$
c_7	$y^{113} - 25y^{112} + \cdots + 4911099153y - 149181796$
c_9	$y^{113} - 46y^{112} + \cdots + 1585145728y - 169416256$
c_{10}	$4(4y^{113} + 3y^{112} + \cdots + 1415y - 1)$
c_{11}	$16(16y^{113} - 377y^{112} + \cdots - 2y - 1)$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.730705 + 0.701905I$ $a = 0.917718 + 0.840301I$ $b = 0.293401 + 0.956315I$	$-0.008867 + 1.193900I$	0
$u = 0.730705 - 0.701905I$ $a = 0.917718 - 0.840301I$ $b = 0.293401 - 0.956315I$	$-0.008867 - 1.193900I$	0
$u = 0.952638 + 0.457126I$ $a = 0.29069 + 2.16362I$ $b = -0.469466 + 1.187140I$	$-6.01052 - 10.10660I$	0
$u = 0.952638 - 0.457126I$ $a = 0.29069 - 2.16362I$ $b = -0.469466 - 1.187140I$	$-6.01052 + 10.10660I$	0
$u = -0.903975 + 0.254126I$ $a = 0.57548 - 1.32233I$ $b = -0.662005 - 1.116090I$	$-4.62375 + 4.40801I$	0
$u = -0.903975 - 0.254126I$ $a = 0.57548 + 1.32233I$ $b = -0.662005 + 1.116090I$	$-4.62375 - 4.40801I$	0
$u = -0.187504 + 0.885996I$ $a = 1.13707 + 1.03844I$ $b = -0.416542 - 1.156760I$	$-2.10342 + 9.54747I$	0
$u = -0.187504 - 0.885996I$ $a = 1.13707 - 1.03844I$ $b = -0.416542 + 1.156760I$	$-2.10342 - 9.54747I$	0
$u = 0.237349 + 1.076610I$ $a = -1.147780 + 0.610591I$ $b = -0.027582 + 0.425677I$	$-2.63280 - 5.54865I$	0
$u = 0.237349 - 1.076610I$ $a = -1.147780 - 0.610591I$ $b = -0.027582 - 0.425677I$	$-2.63280 + 5.54865I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.005765+0.883252I$ $a=\ \ 0.589641-1.129420I$ $b=-0.056422+0.405099I$	$1.89966+1.86803I$	0
$u=-0.005765-0.883252I$ $a=\ \ 0.589641+1.129420I$ $b=-0.056422-0.405099I$	$1.89966-1.86803I$	0
$u=-0.403735+0.784510I$ $a=-2.19174+0.88183I$ $b=\ \ 0.581199-0.356897I$	$0.85923-5.91858I$	0
$u=-0.403735-0.784510I$ $a=-2.19174-0.88183I$ $b=\ \ 0.581199+0.356897I$	$0.85923+5.91858I$	0
$u=\ \ 0.371422+0.787094I$ $a=\ \ 0.0070495-0.1351700I$ $b=\ \ 1.011080-0.177294I$	$4.33591-1.94022I$	0
$u=\ \ 0.371422-0.787094I$ $a=\ \ 0.0070495+0.1351700I$ $b=\ \ 1.011080+0.177294I$	$4.33591+1.94022I$	0
$u=-0.841003+0.223705I$ $a=\ \ 0.284479-0.112278I$ $b=-0.673006-0.074433I$	$-2.25095+0.34651I$	0
$u=-0.841003-0.223705I$ $a=\ \ 0.284479+0.112278I$ $b=-0.673006+0.074433I$	$-2.25095-0.34651I$	0
$u=-1.051380+0.455817I$ $a=\ \ 0.314434+1.285070I$ $b=-0.261410+0.979480I$	$-3.02719+0.97268I$	0
$u=-1.051380-0.455817I$ $a=\ \ 0.314434-1.285070I$ $b=-0.261410-0.979480I$	$-3.02719-0.97268I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.710349+0.965821I$ $a=\ \ 0.857439-0.160982I$ $b=\ \ 0.082891-0.825004I$	$-1.76778+1.45774I$	0
$u=-0.710349-0.965821I$ $a=\ \ 0.857439+0.160982I$ $b=\ \ 0.082891+0.825004I$	$-1.76778-1.45774I$	0
$u=-1.107230+0.461492I$ $a=\ \ 0.04341+1.85457I$ $b=\ \ 0.273296+1.079570I$	$-3.18843+2.99503I$	0
$u=-1.107230-0.461492I$ $a=\ \ 0.04341-1.85457I$ $b=\ \ 0.273296-1.079570I$	$-3.18843-2.99503I$	0
$u=\ \ 0.815180+0.880247I$ $a=-0.761826-0.439004I$ $b=\ \ 0.719767-0.400346I$	$-1.94317-5.18262I$	0
$u=\ \ 0.815180-0.880247I$ $a=-0.761826+0.439004I$ $b=\ \ 0.719767+0.400346I$	$-1.94317+5.18262I$	0
$u=\ \ 1.116560+0.439324I$ $a=\ \ 0.08022+1.54862I$ $b=-0.039009+1.372180I$	$-9.63102+0.79191I$	0
$u=\ \ 1.116560-0.439324I$ $a=\ \ 0.08022-1.54862I$ $b=-0.039009-1.372180I$	$-9.63102-0.79191I$	0
$u=\ \ 0.789027+0.910695I$ $a=-0.67809-1.69004I$ $b=\ \ 0.352320-1.168100I$	$-0.20907-5.85551I$	0
$u=\ \ 0.789027-0.910695I$ $a=-0.67809+1.69004I$ $b=\ \ 0.352320+1.168100I$	$-0.20907+5.85551I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.378008+0.694359I$ $a=-0.344211-0.462805I$ $b=\ \ 0.747558+0.545342I$	$1.06057+2.55166I$	0
$u=-0.378008-0.694359I$ $a=-0.344211+0.462805I$ $b=\ \ 0.747558-0.545342I$	$1.06057-2.55166I$	0
$u=-0.048638+0.756600I$ $a=-0.047945-0.950954I$ $b=\ \ 0.534017+0.425702I$	$1.74471+1.66244I$	0
$u=-0.048638-0.756600I$ $a=-0.047945+0.950954I$ $b=\ \ 0.534017-0.425702I$	$1.74471-1.66244I$	0
$u=\ \ 0.492449+0.566704I$ $a=\ \ 0.771418+1.164870I$ $b=-0.81169+1.29137I$	$-3.65352-10.75530I$	0
$u=\ \ 0.492449-0.566704I$ $a=\ \ 0.771418-1.164870I$ $b=-0.81169-1.29137I$	$-3.65352+10.75530I$	0
$u=\ \ 0.286637+1.219360I$ $a=-0.168881-0.431719I$ $b=\ \ 0.028844+0.755252I$	$2.17253-4.26318I$	0
$u=\ \ 0.286637-1.219360I$ $a=-0.168881+0.431719I$ $b=\ \ 0.028844-0.755252I$	$2.17253+4.26318I$	0
$u=\ \ 0.486425+0.563379I$ $a=-1.045250+0.079378I$ $b=-0.640385+0.010959I$	$-2.75102-5.82060I$	0
$u=\ \ 0.486425-0.563379I$ $a=-1.045250-0.079378I$ $b=-0.640385-0.010959I$	$-2.75102+5.82060I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.313116 + 0.642269I$ $a = -2.39093 + 0.59219I$ $b = 0.444194 - 0.995792I$	$0.77911 - 4.56765I$	0
$u = 0.313116 - 0.642269I$ $a = -2.39093 - 0.59219I$ $b = 0.444194 + 0.995792I$	$0.77911 + 4.56765I$	0
$u = 0.849092 + 0.984812I$ $a = 0.0009063 - 0.0791770I$ $b = -0.962471 - 0.291633I$	$4.35158 - 7.22979I$	0
$u = 0.849092 - 0.984812I$ $a = 0.0009063 + 0.0791770I$ $b = -0.962471 + 0.291633I$	$4.35158 + 7.22979I$	0
$u = -0.019971 + 0.695215I$ $a = -0.098363 + 1.257430I$ $b = -0.398690 + 0.913231I$	$-1.96157 + 2.61364I$	0
$u = -0.019971 - 0.695215I$ $a = -0.098363 - 1.257430I$ $b = -0.398690 - 0.913231I$	$-1.96157 - 2.61364I$	0
$u = -0.537787 + 1.205160I$ $a = 0.210881 - 0.278585I$ $b = -0.620749 + 0.410184I$	$1.02491 + 4.61907I$	0
$u = -0.537787 - 1.205160I$ $a = 0.210881 + 0.278585I$ $b = -0.620749 - 0.410184I$	$1.02491 - 4.61907I$	0
$u = -1.274370 + 0.363997I$ $a = 0.048473 - 1.174720I$ $b = -0.02667 - 1.66030I$	$-7.61228 + 7.01373I$	0
$u = -1.274370 - 0.363997I$ $a = 0.048473 + 1.174720I$ $b = -0.02667 + 1.66030I$	$-7.61228 - 7.01373I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.671007$ $a=-0.737065$ $b=\ \ 1.30320$	1.59308	11.0900
$u=\ \ 0.663983+0.067086I$ $a=\ \ 0.58880-2.03951I$ $b=\ \ 0.264254+0.080519I$	$2.57797-1.20400I$	0
$u=\ \ 0.663983-0.067086I$ $a=\ \ 0.58880+2.03951I$ $b=\ \ 0.264254-0.080519I$	$2.57797+1.20400I$	0
$u=\ \ 0.501079+1.249280I$ $a=-0.156135-0.249076I$ $b=\ \ 0.775398+1.030390I$	$-0.924328-0.718307I$	0
$u=\ \ 0.501079-1.249280I$ $a=-0.156135+0.249076I$ $b=\ \ 0.775398-1.030390I$	$-0.924328+0.718307I$	0
$u=-0.645014+0.101332I$ $a=\ \ 1.74021-3.38475I$ $b=-0.164322+0.168798I$	$0.84575+6.19088I$	$9.11415-2.51135I$
$u=-0.645014-0.101332I$ $a=\ \ 1.74021+3.38475I$ $b=-0.164322-0.168798I$	$0.84575-6.19088I$	$9.11415+2.51135I$
$u=-0.354619+0.532658I$ $a=-0.627502+0.919544I$ $b=\ \ 0.72718+1.28509I$	$0.60416+4.29525I$	$7.2577-21.0892I$
$u=-0.354619-0.532658I$ $a=-0.627502-0.919544I$ $b=\ \ 0.72718-1.28509I$	$0.60416-4.29525I$	$7.2577+21.0892I$
$u=-0.082230+0.629568I$ $a=\ \ 0.870005-0.183638I$ $b=\ \ 0.316184+0.495357I$	$0.32682+1.54414I$	$0.-4.51766I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.082230-0.629568I$ $a=\ 0.870005+0.183638I$ $b=\ 0.316184-0.495357I$	$0.32682-1.54414I$	$0.+4.51766I$
$u=\ 0.616655+0.135637I$ $a=\ 0.55920-1.33877I$ $b=-0.207471-1.324640I$	$-1.10860-3.44185I$	$-2.14071+11.43318I$
$u=\ 0.616655-0.135637I$ $a=\ 0.55920+1.33877I$ $b=-0.207471+1.324640I$	$-1.10860+3.44185I$	$-2.14071-11.43318I$
$u=-0.386815+0.455369I$ $a=\ 1.78378-2.67881I$ $b=-0.414004-1.196830I$	$-1.27433+4.55739I$	$1.57630-4.72702I$
$u=-0.386815-0.455369I$ $a=\ 1.78378+2.67881I$ $b=-0.414004+1.196830I$	$-1.27433-4.55739I$	$1.57630+4.72702I$
$u=-1.027910+0.956718I$ $a=-0.0210101+0.0221034I$ $b=\ 1.262320-0.351158I$	$0.30457+12.45930I$	0
$u=-1.027910-0.956718I$ $a=-0.0210101-0.0221034I$ $b=\ 1.262320+0.351158I$	$0.30457-12.45930I$	0
$u=-0.739512+1.199450I$ $a=\ 1.08521-1.35800I$ $b=-0.528464-1.084370I$	$-0.96954+9.16972I$	0
$u=-0.739512-1.199450I$ $a=\ 1.08521+1.35800I$ $b=-0.528464+1.084370I$	$-0.96954-9.16972I$	0
$u=\ 0.272194+0.506188I$ $a=-2.08250-2.20266I$ $b=\ 0.512742-0.995656I$	$0.27761-2.60385I$	$1.00000-2.98059I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.272194 - 0.506188I$ $a = -2.08250 + 2.20266I$ $b = 0.512742 + 0.995656I$	$0.27761 + 2.60385I$	$1.00000 + 2.98059I$
$u = -0.67343 + 1.27926I$ $a = 0.270731 + 0.271478I$ $b = -0.510287 + 0.646689I$	$0.65851 + 2.05062I$	0
$u = -0.67343 - 1.27926I$ $a = 0.270731 - 0.271478I$ $b = -0.510287 - 0.646689I$	$0.65851 - 2.05062I$	0
$u = 1.38197 + 0.51836I$ $a = -0.105454 + 0.877641I$ $b = 0.539821 + 1.216610I$	$-4.56702 + 0.00108I$	0
$u = 1.38197 - 0.51836I$ $a = -0.105454 - 0.877641I$ $b = 0.539821 - 1.216610I$	$-4.56702 - 0.00108I$	0
$u = 0.421199 + 0.222821I$ $a = 2.05831 + 1.81614I$ $b = -0.467663 + 1.239350I$	$-6.01029 + 1.27408I$	$-6.17679 - 1.96046I$
$u = 0.421199 - 0.222821I$ $a = 2.05831 - 1.81614I$ $b = -0.467663 - 1.239350I$	$-6.01029 - 1.27408I$	$-6.17679 + 1.96046I$
$u = -1.38079 + 0.70608I$ $a = 0.556827 - 1.204160I$ $b = -0.443663 - 1.201280I$	$-5.82093 + 4.49340I$	0
$u = -1.38079 - 0.70608I$ $a = 0.556827 + 1.204160I$ $b = -0.443663 + 1.201280I$	$-5.82093 - 4.49340I$	0
$u = -1.37912 + 0.71107I$ $a = 0.53209 - 1.63790I$ $b = -0.389641 - 0.580070I$	$0.96565 + 6.44634I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.37912-0.71107I$ $a=\ \ 0.53209+1.63790I$ $b=-0.389641+0.580070I$	$0.96565-6.44634I$	0
$u=-1.31022+0.84319I$ $a=-0.263787+1.019110I$ $b=\ \ 0.432358+1.286450I$	$-3.24602+5.27863I$	0
$u=-1.31022-0.84319I$ $a=-0.263787-1.019110I$ $b=\ \ 0.432358-1.286450I$	$-3.24602-5.27863I$	0
$u=-1.08973+1.21847I$ $a=\ \ 0.77357-1.18741I$ $b=-0.683885-1.088740I$	$-0.20369+7.33727I$	0
$u=-1.08973-1.21847I$ $a=\ \ 0.77357+1.18741I$ $b=-0.683885+1.088740I$	$-0.20369-7.33727I$	0
$u=\ \ 0.05471+1.63846I$ $a=\ \ 0.186685-0.094066I$ $b=-0.16287+1.52564I$	$-0.437960+0.283875I$	0
$u=\ \ 0.05471-1.63846I$ $a=\ \ 0.186685+0.094066I$ $b=-0.16287-1.52564I$	$-0.437960-0.283875I$	0
$u=\ \ 1.19072+1.13104I$ $a=\ \ 0.582124+1.286320I$ $b=-0.597381+1.217770I$	$1.47459-12.88880I$	0
$u=\ \ 1.19072-1.13104I$ $a=\ \ 0.582124-1.286320I$ $b=-0.597381-1.217770I$	$1.47459+12.88880I$	0
$u=\ \ 0.241059+0.245203I$ $a=-1.48337-2.83446I$ $b=\ \ 0.507447-0.994872I$	$-0.08514-2.26722I$	$2.14871+2.34962I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \ 0.241059 - 0.245203I$ $a = -1.48337 + 2.83446I$ $b = \ 0.507447 + 0.994872I$	$-0.08514 + 2.26722I$	$2.14871 - 2.34962I$
$u = \ 1.20108 + 1.15982I$ $a = -0.660019 - 1.093430I$ $b = \ 0.82066 - 1.38978I$	$-2.41977 - 9.88740I$	0
$u = \ 1.20108 - 1.15982I$ $a = -0.660019 + 1.093430I$ $b = \ 0.82066 + 1.38978I$	$-2.41977 + 9.88740I$	0
$u = -1.18048 + 1.22022I$ $a = -0.664548 + 1.169310I$ $b = \ 0.70399 + 1.30576I$	$-2.7940 + 19.3323I$	0
$u = -1.18048 - 1.22022I$ $a = -0.664548 - 1.169310I$ $b = \ 0.70399 - 1.30576I$	$-2.7940 - 19.3323I$	0
$u = -1.34256 + 1.12414I$ $a = -0.264566 + 1.183590I$ $b = \ 0.315795 + 1.245830I$	$-4.25106 + 5.49372I$	0
$u = -1.34256 - 1.12414I$ $a = -0.264566 - 1.183590I$ $b = \ 0.315795 - 1.245830I$	$-4.25106 - 5.49372I$	0
$u = -0.21029 + 1.74924I$ $a = -0.046942 - 0.533491I$ $b = -0.109658 - 0.807035I$	$-1.03172 + 4.75606I$	0
$u = -0.21029 - 1.74924I$ $a = -0.046942 + 0.533491I$ $b = -0.109658 + 0.807035I$	$-1.03172 - 4.75606I$	0
$u = \ 0.215191 + 0.003179I$ $a = -0.288092 - 0.507214I$ $b = -1.02616 + 1.01346I$	$-1.98954 + 3.03315I$	$-16.8949 + 11.2068I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.215191 - 0.003179I$ $a = -0.288092 + 0.507214I$ $b = -1.02616 - 1.01346I$	$-1.98954 - 3.03315I$	$-16.8949 - 11.2068I$
$u = 1.62645 + 0.80232I$ $a = 0.333854 + 1.297440I$ $b = -0.278509 + 0.742584I$	$2.84015 + 0.51393I$	0
$u = 1.62645 - 0.80232I$ $a = 0.333854 - 1.297440I$ $b = -0.278509 - 0.742584I$	$2.84015 - 0.51393I$	0
$u = 0.137737 + 0.072968I$ $a = 10.8391 + 10.8235I$ $b = 0.096180 - 0.606963I$	$2.43152 + 1.27971I$	$7.88421 - 7.51636I$
$u = 0.137737 - 0.072968I$ $a = 10.8391 - 10.8235I$ $b = 0.096180 + 0.606963I$	$2.43152 - 1.27971I$	$7.88421 + 7.51636I$
$u = -1.85461$ $a = 0.0159751$ $b = -2.12615$	0.212503	0
$u = 0.0729796$ $a = 10.2003$ $b = -1.18497$	3.14087	2.53230
$u = 0.81756 + 1.75216I$ $a = 0.073400 - 0.732198I$ $b = -0.343361 - 0.849667I$	$2.44577 + 3.54875I$	0
$u = 0.81756 - 1.75216I$ $a = 0.073400 + 0.732198I$ $b = -0.343361 + 0.849667I$	$2.44577 - 3.54875I$	0
$u = 1.05865 + 1.67100I$ $a = -0.663046 - 0.933414I$ $b = 0.404531 - 1.154110I$	$-5.60691 - 8.43739I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.05865 - 1.67100I$ $a = -0.663046 + 0.933414I$ $b = 0.404531 + 1.154110I$	$-5.60691 + 8.43739I$	0
$u = -1.59209 + 1.84166I$ $a = -0.000834 - 0.701556I$ $b = 0.399961 - 1.184290I$	$-2.84578 - 9.33184I$	0
$u = -1.59209 - 1.84166I$ $a = -0.000834 + 0.701556I$ $b = 0.399961 + 1.184290I$	$-2.84578 + 9.33184I$	0

II. $I_2^u = \langle -4.35 \times 10^{21} u^{22} + 1.82 \times 10^{22} u^{21} + \cdots + 8.16 \times 10^{21} b - 4.14 \times 10^{21},\ -6.82 \times 10^{21} u^{22} + 2.54 \times 10^{22} u^{21} + \cdots + 8.16 \times 10^{21} a + 2.29 \times 10^{22},\ 2u^{23} - 7u^{22} + \cdots + 3u + 1 \rangle$

(i) Arc colorings

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

$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.835852u^{22} - 3.10851u^{21} + \cdots - 3.66936u - 2.80350 \\ 0.532913u^{22} - 2.23460u^{21} + \cdots - 0.202407u + 0.507100 \end{pmatrix}$$

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

$$a_1 = \begin{pmatrix} 0.302939u^{22} - 0.873905u^{21} + \cdots - 3.46695u - 3.31060 \\ 0.532913u^{22} - 2.23460u^{21} + \cdots - 0.202407u + 0.507100 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.765078u^{22} - 1.71441u^{21} + \cdots + 3.64109u - 1.12180 \\ -0.252428u^{22} + 0.918443u^{21} + \cdots - 2.42790u - 0.489928 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 3.07452u^{22} - 10.0533u^{21} + \cdots + 1.53099u + 0.299526 \\ 0.0198298u^{22} - 0.547025u^{21} + \cdots - 2.30497u - 0.997314 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 2.50053u^{22} - 8.35229u^{21} + \cdots - 0.204193u + 1.08926 \\ -0.272674u^{22} + 0.715148u^{21} + \cdots - 2.46423u - 0.968317 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.818534u^{22} - 2.22904u^{21} + \cdots + 4.24140u - 1.11356 \\ -0.406505u^{22} + 1.58533u^{21} + \cdots - 1.96333u - 0.326161 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 1.53473u^{22} - 5.88655u^{21} + \cdots - 7.60119u - 3.10138 \\ -0.169107u^{22} + 0.355678u^{21} + \cdots - 1.15588u + 0.277971 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 3.32473u^{22} - 11.2128u^{21} + \cdots + 3.72080u + 1.95055 \\ -1.03503u^{22} + 3.37309u^{21} + \cdots - 2.78142u - 1.21936 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 3.32473u^{22} - 11.2128u^{21} + \cdots + 3.72080u + 1.95055 \\ -1.03503u^{22} + 3.37309u^{21} + \cdots - 2.78142u - 1.21936 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -\frac{191738860314312663461 94}{271942263239908175461 1}u^{22} + \frac{217010978696549455762583}{815826789719724526383 3}u^{21} + \cdots - \frac{516516093699458025467 95}{815826789719724526383 3}u + \frac{454853374915312781529 2}{271942263239908175461 1}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$2(2u^{23}+3u^{22}+\cdots+2u+1)$
c_2	$u^{23}-3u^{22}+\cdots+5u-1$
c_3	$u^{23}+8u^{22}+\cdots+5u-4$
c_4	$u^{23}+4u^{20}+\cdots+5u+1$
c_5	$2(2u^{23}-3u^{22}+\cdots+2u-1)$
c_6	$2(2u^{23}-7u^{22}+\cdots+3u+1)$
c_7	$u^{23}-2u^{22}+\cdots+21u+2$
c_8	$u^{23}+3u^{22}+\cdots+5u+1$
c_9	$u^{23}-u^{22}+\cdots-32u+8$
c_{10}	$2(2u^{23}+u^{22}+\cdots+4u+1)$
c_{11}	$4(4u^{23}-39u^{22}+\cdots-u-1)$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_5	$4(4y^{23} + 59y^{22} + \cdots - 26y - 1)$
c_2, c_8	$y^{23} - 19y^{22} + \cdots + 17y - 1$
c_3	$y^{23} + 2y^{21} + \cdots - 79y - 16$
c_4	$y^{23} + 6y^{21} + \cdots + 11y - 1$
c_6	$4(4y^{23} + 43y^{22} + \cdots + 3y - 1)$
c_7	$y^{23} - 10y^{22} + \cdots + 61y - 4$
c_9	$y^{23} - 19y^{22} + \cdots + 320y - 64$
c_{10}	$4(4y^{23} + 15y^{22} + \cdots + 24y - 1)$
c_{11}	$16(16y^{23} + 23y^{22} + \cdots + 15y - 1)$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.990364 + 0.165005I$ $a = -1.17712 - 2.87962I$ $b = 0.074846 - 0.559580I$	$0.45628 - 6.29930I$	$-10.47290 + 7.29164I$
$u = 0.990364 - 0.165005I$ $a = -1.17712 + 2.87962I$ $b = 0.074846 + 0.559580I$	$0.45628 + 6.29930I$	$-10.47290 - 7.29164I$
$u = -0.732286 + 0.640877I$ $a = -1.71021 + 1.62292I$ $b = 0.189851 + 0.738931I$	$2.15439 - 0.76708I$	$0.34346 - 2.42258I$
$u = -0.732286 - 0.640877I$ $a = -1.71021 - 1.62292I$ $b = 0.189851 - 0.738931I$	$2.15439 + 0.76708I$	$0.34346 + 2.42258I$
$u = -0.333654 + 1.118630I$ $a = 0.160907 - 0.687866I$ $b = -0.051237 + 0.477997I$	$2.67620 + 4.28141I$	$12.68262 - 5.40184I$
$u = -0.333654 - 1.118630I$ $a = 0.160907 + 0.687866I$ $b = -0.051237 - 0.477997I$	$2.67620 - 4.28141I$	$12.68262 + 5.40184I$
$u = 0.556461 + 1.142430I$ $a = -0.074206 - 0.329987I$ $b = -0.461847 - 1.168820I$	$-3.50834 + 8.81487I$	$-3.31032 - 6.21747I$
$u = 0.556461 - 1.142430I$ $a = -0.074206 + 0.329987I$ $b = -0.461847 + 1.168820I$	$-3.50834 - 8.81487I$	$-3.31032 + 6.21747I$
$u = 0.193675 + 0.631493I$ $a = -1.166350 - 0.236551I$ $b = 0.544774 - 1.045690I$	$0.48442 - 3.74945I$	$2.31166 + 3.47327I$
$u = 0.193675 - 0.631493I$ $a = -1.166350 + 0.236551I$ $b = 0.544774 + 1.045690I$	$0.48442 + 3.74945I$	$2.31166 - 3.47327I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \ 0.673792 + 1.201010I$ $a = \ 0.171730 - 0.086179I$ $b = \ 0.740418 + 1.058970I$	$0.032703 - 0.467420I$	$5.82505 - 2.66904I$
$u = \ 0.673792 - 1.201010I$ $a = \ 0.171730 + 0.086179I$ $b = \ 0.740418 - 1.058970I$	$0.032703 + 0.467420I$	$5.82505 + 2.66904I$
$u = \ 0.234386 + 0.526440I$ $a = -2.04454 - 2.15529I$ $b = \ 0.385732 - 0.993312I$	$0.53356 - 3.30498I$	$4.54639 + 7.11013I$
$u = \ 0.234386 - 0.526440I$ $a = -2.04454 + 2.15529I$ $b = \ 0.385732 + 0.993312I$	$0.53356 + 3.30498I$	$4.54639 - 7.11013I$
$u = -0.85634 + 1.19785I$ $a = \ 0.99658 - 1.25829I$ $b = -0.648239 - 1.099110I$	$-1.41624 + 8.52463I$	$-2.57806 - 5.98439I$
$u = -0.85634 - 1.19785I$ $a = \ 0.99658 + 1.25829I$ $b = -0.648239 + 1.099110I$	$-1.41624 - 8.52463I$	$-2.57806 + 5.98439I$
$u = -0.312350 + 0.277767I$ $a = \ 0.429615 + 1.094430I$ $b = -0.80986 + 1.17368I$	$-1.92062 + 3.22933I$	$-4.3570 - 23.3452I$
$u = -0.312350 - 0.277767I$ $a = \ 0.429615 - 1.094430I$ $b = -0.80986 - 1.17368I$	$-1.92062 - 3.22933I$	$-4.3570 + 23.3452I$
$u = \ 0.20133 + 1.58612I$ $a = -0.219540 + 0.568782I$ $b = -0.057229 + 0.695931I$	$-0.83524 - 4.45780I$	$4.08352 - 1.73203I$
$u = \ 0.20133 - 1.58612I$ $a = -0.219540 - 0.568782I$ $b = -0.057229 - 0.695931I$	$-0.83524 + 4.45780I$	$4.08352 + 1.73203I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.303654$ $a=-3.11818$ $b=\ \ 1.00967$	4.08593	11.5230
$u=\ \ 1.28644+1.13639I$ $a=-0.307775-1.128130I$ $b=\ \ 0.337963-1.266670I$	$-3.98995-5.61846I$	$2.9295+15.2577I$
$u=\ \ 1.28644-1.13639I$ $a=-0.307775+1.128130I$ $b=\ \ 0.337963+1.266670I$	$-3.98995+5.61846I$	$2.9295-15.2577I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$4(2u^{23}+3u^{22}+\cdots+2u+1)(2u^{113}+u^{112}+\cdots-u-1)$
c_2	$(u^{23}-3u^{22}+\cdots+5u-1)(u^{113}-2u^{112}+\cdots-3534u+4993)$
c_3	$(u^{23}+8u^{22}+\cdots+5u-4)(u^{113}-3u^{112}+\cdots-1271u+44)$
c_4	$(u^{23}+4u^{20}+\cdots+5u+1)(u^{113}+13u^{112}+\cdots-4u-1)$
c_5	$4(2u^{23}-3u^{22}+\cdots+2u-1)(2u^{113}+u^{112}+\cdots-u-1)$
c_6	$4(2u^{23}-7u^{22}+\cdots+3u+1)(2u^{113}+17u^{112}+\cdots+38u-1)$
c_7	$(u^{23}-2u^{22}+\cdots+21u+2)(u^{113}+u^{112}+\cdots-34861u+12214)$
c_8	$(u^{23}+3u^{22}+\cdots+5u+1)(u^{113}-2u^{112}+\cdots-3534u+4993)$
c_9	$(u^{23}-u^{22}+\cdots-32u+8)(u^{113}+2u^{112}+\cdots+26104u+13016)$
c_{10}	$4(2u^{23}+u^{22}+\cdots+4u+1)(2u^{113}+3u^{112}+\cdots+23u+1)$
c_{11}	$16(4u^{23}-39u^{22}+\cdots-u-1)(4u^{113}-35u^{112}+\cdots+12u+1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_5	$16(4y^{23}+59y^{22}+\cdots-26y-1)(4y^{113}+255y^{112}+\cdots-31y-1)$
c_2, c_8	$(y^{23}-19y^{22}+\cdots+17y-1)$ $\cdot(y^{113}-78y^{112}+\cdots+591816960y-24930049)$
c_3	$(y^{23}+2y^{21}+\cdots-79y-16)(y^{113}-11y^{112}+\cdots+228913y-1936)$
c_4	$(y^{23}+6y^{21}+\cdots+11y-1)(y^{113}-11y^{112}+\cdots-158y-1)$
c_6	$16(4y^{23}+43y^{22}+\cdots+3y-1)(4y^{113}+47y^{112}+\cdots+270y-1)$
c_7	$(y^{23}-10y^{22}+\cdots+61y-4)$ $\cdot(y^{113}-25y^{112}+\cdots+4911099153y-149181796)$
c_9	$(y^{23}-19y^{22}+\cdots+320y-64)$ $\cdot(y^{113}-46y^{112}+\cdots+1585145728y-169416256)$
c_{10}	$16(4y^{23}+15y^{22}+\cdots+24y-1)(4y^{113}+3y^{112}+\cdots+1415y-1)$
c_{11}	$256(16y^{23}+23y^{22}+\cdots+15y-1)(16y^{113}-377y^{112}+\cdots-2y-1)$