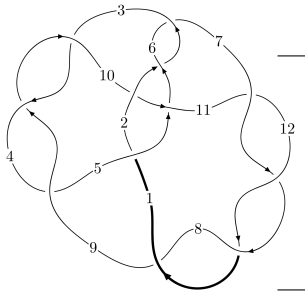
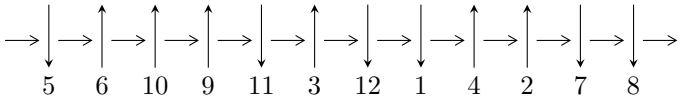
$12a_{1244}$ $(K12a_{1244})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle 5.55213 \times 10^{84} u^{75} - 1.16390 \times 10^{85} u^{74} + \cdots + 5.41696 \times 10^{85} b + 4.82475 \times 10^{85},$$
$$5.54157 \times 10^{84} u^{75} - 2.95347 \times 10^{84} u^{74} + \cdots + 5.41696 \times 10^{85} a - 3.16627 \times 10^{86},\ u^{76} - u^{75} + \cdots + 4u - 8 \rangle$$
$$I_2^u = \langle -u^{16} - 9u^{14} - 31u^{12} - u^{11} - 49u^{10} - 6u^9 - 31u^8 - 12u^7 - 9u^5 + 4u^4 - 2u^3 + u^2 + b - u + 1,$$
$$u^{16} + u^{15} + 10u^{14} + 9u^{13} + 40u^{12} + 33u^{11} + 81u^{10} + 63u^9 + 86u^8 + 66u^7 + 44u^6 + 36u^5 + 9u^4 + 8u^3 + a - 2$$
$$u^{17} + 10u^{15} + 40u^{13} + u^{12} + 80u^{11} + 7u^{10} + 80u^9 + 18u^8 + 31u^7 + 21u^6 - 4u^5 + 11u^4 - 5u^3 + 3u^2 - 2u + 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 93 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.

$\boldsymbol{I_1^u = \langle 5.55\times 10^{84}u^{75} - 1.16\times 10^{85}u^{74} + \cdots + 5.42\times 10^{85}b + 4.82\times 10^{85},\ 5.54\times 10^{84}u^{75} - 2.95\times 10^{84}u^{74} + \cdots + 5.42\times 10^{85}a - 3.17\times 10^{86},\ u^{76} - u^{75} + \cdots + 4u - 8\rangle}$

(i) Arc colorings

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

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

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

$$a_6 = \begin{pmatrix} -0.102300u^{75} + 0.0545226u^{74} + \cdots - 6.18614u + 5.84511 \\ -0.102495u^{75} + 0.214862u^{74} + \cdots + 6.25886u - 0.890674 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.204796u^{75} + 0.269385u^{74} + \cdots + 0.0727163u + 4.95443 \\ -0.102495u^{75} + 0.214862u^{74} + \cdots + 6.25886u - 0.890674 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.108222u^{75} - 0.118173u^{74} + \cdots - 13.2901u - 1.23742 \\ 0.0265752u^{75} - 0.118287u^{74} + \cdots - 5.18142u - 0.132099 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.179021u^{75} - 0.179939u^{74} + \cdots - 9.84024u - 0.938082 \\ 0.0355776u^{75} - 0.0834769u^{74} + \cdots - 1.36926u - 0.250356 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 0.192907u^{75} - 0.137353u^{74} + \cdots - 9.43677u - 5.08532 \\ 0.0863896u^{75} - 0.0566665u^{74} + \cdots - 10.9587u - 0.256097 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u \\ u^3 + u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u^2 + 1 \\ -u^4 - 2u^2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.0664020u^{75} - 0.174533u^{74} + \cdots - 16.3898u - 1.57130 \\ -0.0196414u^{75} - 0.0913926u^{74} + \cdots - 5.73736u - 0.0549055 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.272464u^{75} - 0.292969u^{74} + \cdots - 18.6154u - 3.01996 \\ 0.155586u^{75} - 0.133803u^{74} + \cdots - 10.7797u - 0.765404 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.175958u^{75} - 0.0797037u^{74} + \cdots + 21.9858u + 2.71207$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{76}+5u^{75}+\cdots+5251032u+1662433$
c_2, c_6	$u^{76}-20u^{74}+\cdots-13u+1$
c_3, c_4, c_9	$u^{76}+u^{75}+\cdots-4u-8$
c_5	$u^{76}+u^{75}+\cdots-39u+19$
c_7, c_8, c_{11} c_{12}	$u^{76}-u^{75}+\cdots-122u-19$
c_{10}	$u^{76}-4u^{75}+\cdots+14u+1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{76} - 39y^{75} + \cdots - 83103653061344y + 2763683479489$
c_2, c_6	$y^{76} - 40y^{75} + \cdots - 75y + 1$
c_3, c_4, c_9	$y^{76} + 83y^{75} + \cdots + 1264y + 64$
c_5	$y^{76} - 5y^{75} + \cdots - 7791y + 361$
c_7, c_8, c_{11} c_{12}	$y^{76} - 97y^{75} + \cdots - 10590y + 361$
c_{10}	$y^{76} + 60y^{74} + \cdots - 172y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.301272 + 0.930495I$ $a = -0.150821 + 0.775050I$ $b = 1.183940 + 0.498727I$	$-7.96110 + 4.04129I$	0
$u = 0.301272 - 0.930495I$ $a = -0.150821 - 0.775050I$ $b = 1.183940 - 0.498727I$	$-7.96110 - 4.04129I$	0
$u = -0.776626 + 0.567863I$ $a = -1.77812 - 0.63034I$ $b = 1.176910 - 0.523415I$	$0.29651 - 8.26948I$	0
$u = -0.776626 - 0.567863I$ $a = -1.77812 + 0.63034I$ $b = 1.176910 + 0.523415I$	$0.29651 + 8.26948I$	0
$u = -0.847523 + 0.643030I$ $a = 1.086890 + 0.520197I$ $b = -1.037760 - 0.378007I$	$0.24259 + 2.84206I$	0
$u = -0.847523 - 0.643030I$ $a = 1.086890 - 0.520197I$ $b = -1.037760 + 0.378007I$	$0.24259 - 2.84206I$	0
$u = -0.710046 + 0.577141I$ $a = -0.119604 - 0.132006I$ $b = 0.240878 + 1.059360I$	$-11.37560 - 4.60303I$	$-6.80265 + 0.I$
$u = -0.710046 - 0.577141I$ $a = -0.119604 + 0.132006I$ $b = 0.240878 - 1.059360I$	$-11.37560 + 4.60303I$	$-6.80265 + 0.I$
$u = -0.122145 + 1.118440I$ $a = 0.78499 + 1.42762I$ $b = -0.862415 + 0.040383I$	$-3.52211 - 0.25493I$	0
$u = -0.122145 - 1.118440I$ $a = 0.78499 - 1.42762I$ $b = -0.862415 - 0.040383I$	$-3.52211 + 0.25493I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.406456 + 0.744068I$ $a = 1.14186 - 1.03625I$ $b = -0.925552 + 0.226684I$	$1.76999 - 1.00907I$	$2.09148 - 2.14646I$
$u = 0.406456 - 0.744068I$ $a = 1.14186 + 1.03625I$ $b = -0.925552 - 0.226684I$	$1.76999 + 1.00907I$	$2.09148 + 2.14646I$
$u = 0.950096 + 0.671778I$ $a = -1.49721 + 0.52951I$ $b = 1.229350 + 0.610141I$	$-8.31286 + 10.47230I$	0
$u = 0.950096 - 0.671778I$ $a = -1.49721 - 0.52951I$ $b = 1.229350 - 0.610141I$	$-8.31286 - 10.47230I$	0
$u = 0.169965 + 1.171850I$ $a = -0.395900 + 0.455510I$ $b = 1.34834 + 0.68368I$	$-8.01890 + 3.95701I$	0
$u = 0.169965 - 1.171850I$ $a = -0.395900 - 0.455510I$ $b = 1.34834 - 0.68368I$	$-8.01890 - 3.95701I$	0
$u = 0.803294$ $a = 1.44653$ $b = -1.47863$	-4.69299	1.19240
$u = 0.789691$ $a = 1.63403$ $b = -0.551119$	-1.59784	-8.69720
$u = -0.783581$ $a = 2.21801$ $b = -0.157298$	-10.7466	-11.2370
$u = 0.512045 + 0.531509I$ $a = -0.003817 + 0.248065I$ $b = 0.161163 - 0.847094I$	$-2.70752 + 3.32928I$	$-6.27624 - 7.23745I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.512045 - 0.531509I$ $a = -0.003817 - 0.248065I$ $b = 0.161163 + 0.847094I$	$-2.70752 - 3.32928I$	$-6.27624 + 7.23745I$
$u = 1.071010 + 0.678965I$ $a = 0.950965 - 0.378857I$ $b = -1.110750 + 0.472733I$	$-8.15172 - 3.82370I$	0
$u = 1.071010 - 0.678965I$ $a = 0.950965 + 0.378857I$ $b = -1.110750 - 0.472733I$	$-8.15172 + 3.82370I$	0
$u = -0.223516 + 1.262430I$ $a = -0.571485 - 0.884942I$ $b = 1.145130 - 0.712804I$	$-1.79598 - 3.34060I$	0
$u = -0.223516 - 1.262430I$ $a = -0.571485 + 0.884942I$ $b = 1.145130 + 0.712804I$	$-1.79598 + 3.34060I$	0
$u = 0.546836 + 0.411776I$ $a = -2.48447 + 0.89729I$ $b = 1.092580 + 0.407714I$	$2.63552 + 4.45849I$	$2.79752 - 6.64900I$
$u = 0.546836 - 0.411776I$ $a = -2.48447 - 0.89729I$ $b = 1.092580 - 0.407714I$	$2.63552 - 4.45849I$	$2.79752 + 6.64900I$
$u = -0.642650 + 0.227533I$ $a = 2.05134 + 0.87646I$ $b = 0.062140 + 0.342103I$	$-10.74520 - 0.02289I$	$-9.54952 - 0.49322I$
$u = -0.642650 - 0.227533I$ $a = 2.05134 - 0.87646I$ $b = 0.062140 - 0.342103I$	$-10.74520 + 0.02289I$	$-9.54952 + 0.49322I$
$u = -0.067601 + 1.338650I$ $a = -0.787894 - 0.164053I$ $b = 1.348590 - 0.183843I$	$-1.77410 - 1.95331I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.067601-1.338650I$ $a=-0.787894+0.164053I$ $b=\ \ 1.348590+0.183843I$	$-1.77410+1.95331I$	0
$u=-0.063904+0.655723I$ $a=\ \ 0.629348-0.569483I$ $b=\ \ 0.838089-0.268306I$	$-0.65753-1.80944I$	$-6.25762+5.56390I$
$u=-0.063904-0.655723I$ $a=\ \ 0.629348+0.569483I$ $b=\ \ 0.838089+0.268306I$	$-0.65753+1.80944I$	$-6.25762-5.56390I$
$u=\ \ 0.083384+1.380440I$ $a=-0.327507+0.955301I$ $b=\ \ 1.12997+0.91352I$	$-3.01556+3.75046I$	0
$u=\ \ 0.083384-1.380440I$ $a=-0.327507-0.955301I$ $b=\ \ 1.12997-0.91352I$	$-3.01556-3.75046I$	0
$u=-0.604756+0.005334I$ $a=\ \ 1.79141+0.05856I$ $b=-1.138290+0.228148I$	$2.07647-0.27911I$	$4.81259-2.39158I$
$u=-0.604756-0.005334I$ $a=\ \ 1.79141-0.05856I$ $b=-1.138290-0.228148I$	$2.07647+0.27911I$	$4.81259+2.39158I$
$u=\ \ 0.549686$ $a=\ \ 1.57697$ $b=-0.170519$	-1.64568	-6.18920
$u=-0.275544+0.445603I$ $a=\ \ 0.499599-0.378693I$ $b=\ \ 0.071648+0.410281I$	$-0.007012-1.042730I$	$-0.28024+6.10679I$
$u=-0.275544-0.445603I$ $a=\ \ 0.499599+0.378693I$ $b=\ \ 0.071648-0.410281I$	$-0.007012+1.042730I$	$-0.28024-6.10679I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.29973 + 1.45067I$ $a = -1.099410 + 0.614366I$ $b = 0.975981 + 0.422982I$	$-6.74604 + 4.17883I$	0
$u = 0.29973 - 1.45067I$ $a = -1.099410 - 0.614366I$ $b = 0.975981 - 0.422982I$	$-6.74604 - 4.17883I$	0
$u = -0.05425 + 1.48830I$ $a = 1.04203 + 1.48061I$ $b = -1.016840 + 0.455138I$	$-6.76022 - 1.59431I$	0
$u = -0.05425 - 1.48830I$ $a = 1.04203 - 1.48061I$ $b = -1.016840 - 0.455138I$	$-6.76022 + 1.59431I$	0
$u = -0.02144 + 1.49751I$ $a = -0.234003 - 0.908984I$ $b = 1.15010 - 1.02860I$	$-11.48080 - 4.04250I$	0
$u = -0.02144 - 1.49751I$ $a = -0.234003 + 0.908984I$ $b = 1.15010 + 1.02860I$	$-11.48080 + 4.04250I$	0
$u = -0.08422 + 1.50043I$ $a = 0.82646 - 1.61332I$ $b = -0.820930 - 0.456119I$	$-16.7189 - 1.7521I$	0
$u = -0.08422 - 1.50043I$ $a = 0.82646 + 1.61332I$ $b = -0.820930 + 0.456119I$	$-16.7189 + 1.7521I$	0
$u = 0.16069 + 1.50054I$ $a = 1.08147 - 1.21080I$ $b = -1.160330 - 0.534577I$	$-3.69831 + 6.96075I$	0
$u = 0.16069 - 1.50054I$ $a = 1.08147 + 1.21080I$ $b = -1.160330 + 0.534577I$	$-3.69831 - 6.96075I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.05735+1.50893I$ $a=-0.293801-0.276830I$ $b=-0.152043-0.794423I$	$-6.56407-2.10121I$	0
$u=-0.05735-1.50893I$ $a=-0.293801+0.276830I$ $b=-0.152043+0.794423I$	$-6.56407+2.10121I$	0
$u=\ \ 0.16818+1.52267I$ $a=-0.231387+0.325071I$ $b=-0.332142+1.102730I$	$-9.48501+5.84613I$	0
$u=\ \ 0.16818-1.52267I$ $a=-0.231387-0.325071I$ $b=-0.332142-1.102730I$	$-9.48501-5.84613I$	0
$u=-0.01840+1.57131I$ $a=-0.557579+0.464452I$ $b=-0.585914+0.385750I$	$-8.17034-2.09468I$	0
$u=-0.01840-1.57131I$ $a=-0.557579-0.464452I$ $b=-0.585914-0.385750I$	$-8.17034+2.09468I$	0
$u=-0.25000+1.55224I$ $a=\ \ 0.96650+1.06969I$ $b=-1.223910+0.647769I$	$-6.66209-12.00420I$	0
$u=-0.25000-1.55224I$ $a=\ \ 0.96650-1.06969I$ $b=-1.223910-0.647769I$	$-6.66209+12.00420I$	0
$u=-0.25184+1.55488I$ $a=-0.201337-0.338249I$ $b=-0.471945-1.250080I$	$-18.3759-8.1937I$	0
$u=-0.25184-1.55488I$ $a=-0.201337+0.338249I$ $b=-0.471945+1.250080I$	$-18.3759+8.1937I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.09185 + 1.63177I$ $a = -0.321675 - 0.710395I$ $b = -0.867349 - 0.470399I$	$-16.5562 + 5.5782I$	0
$u = \quad 0.09185 - 1.63177I$ $a = -0.321675 + 0.710395I$ $b = -0.867349 + 0.470399I$	$-16.5562 - 5.5782I$	0
$u = -0.38724 + 1.58875I$ $a = -1.29378 - 0.74570I$ $b = \quad 0.808299 - 0.437665I$	$-16.6346 - 5.1140I$	0
$u = -0.38724 - 1.58875I$ $a = -1.29378 + 0.74570I$ $b = \quad 0.808299 + 0.437665I$	$-16.6346 + 5.1140I$	0
$u = -0.13539 + 1.63639I$ $a = -0.216828 + 0.055600I$ $b = \quad 0.647173 + 0.330956I$	$-7.91994 - 0.77322I$	0
$u = -0.13539 - 1.63639I$ $a = -0.216828 - 0.055600I$ $b = \quad 0.647173 - 0.330956I$	$-7.91994 + 0.77322I$	0
$u = \quad 0.31387 + 1.61627I$ $a = \quad 0.873443 - 1.007800I$ $b = -1.25014 - 0.74147I$	$-15.8002 + 15.1438I$	0
$u = \quad 0.31387 - 1.61627I$ $a = \quad 0.873443 + 1.007800I$ $b = -1.25014 + 0.74147I$	$-15.8002 - 15.1438I$	0
$u = -0.169958 + 0.261458I$ $a = -4.41670 - 4.26044I$ $b = \quad 0.880574 - 0.265951I$	$-0.726457 - 0.785371I$	$-6.43366 + 8.53278I$
$u = -0.169958 - 0.261458I$ $a = -4.41670 + 4.26044I$ $b = \quad 0.880574 + 0.265951I$	$-0.726457 + 0.785371I$	$-6.43366 - 8.53278I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.275955 + 0.067448I$ $a = 2.92659 - 0.88521I$ $b = -1.094950 - 0.576332I$	$1.75321 + 2.55068I$	$4.02344 - 10.63288I$
$u = 0.275955 - 0.067448I$ $a = 2.92659 + 0.88521I$ $b = -1.094950 + 0.576332I$	$1.75321 - 2.55068I$	$4.02344 + 10.63288I$
$u = -0.045119 + 0.271744I$ $a = 0.57010 + 2.42374I$ $b = -1.14455 + 0.89843I$	$-5.33747 - 3.77193I$	$0.82553 + 8.23011I$
$u = -0.045119 - 0.271744I$ $a = 0.57010 - 2.42374I$ $b = -1.14455 - 0.89843I$	$-5.33747 + 3.77193I$	$0.82553 - 8.23011I$
$u = 0.27864 + 1.72170I$ $a = -0.177452 - 0.047796I$ $b = 0.883732 - 0.445558I$	$-16.3787 + 1.4352I$	0
$u = 0.27864 - 1.72170I$ $a = -0.177452 + 0.047796I$ $b = 0.883732 + 0.445558I$	$-16.3787 - 1.4352I$	0

II.

$\boldsymbol{I_2^u = \langle -u^{16}-9u^{14}+\cdots+b+1,\ u^{16}+u^{15}+\cdots+a-2,\ u^{17}+10u^{15}+\cdots-2u+1\rangle}$

(i) Arc colorings

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

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

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

$$a_6 = \begin{pmatrix} -u^{16} - u^{15} + \cdots - 8u^3 + 2 \\ u^{16} + 9u^{14} + \cdots + u - 1 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -u^{15} - u^{14} + \cdots + u + 1 \\ u^{16} + 9u^{14} + \cdots + u - 1 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} u^{16} + 10u^{14} + \cdots + u - 1 \\ u^{16} - u^{15} + \cdots - 4u^2 + 2u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -u^{14} - u^{13} + \cdots - 2u + 1 \\ u^{15} + u^{14} + \cdots + u^3 + u \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -u^{16} - u^{15} + \cdots - u - 1 \\ -u^{16} - u^{15} + \cdots + 3u - 1 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u \\ u^3 + u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u^2 + 1 \\ -u^4 - 2u^2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^{16} + 10u^{14} + \cdots + u - 1 \\ -u^{15} - u^{14} + \cdots - 2u^2 + u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -2u^{16} - u^{15} + \cdots - 2u + 1 \\ -2u^{16} - u^{15} + \cdots + 3u^2 - 2u \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -7u^{16} + 2u^{15} - 61u^{14} + 16u^{13} - 204u^{12} + 39u^{11} - 318u^{10} + 11u^9 - 216u^8 - 74u^7 - 34u^6 - 88u^5 + 20u^4 - 32u^3 + 17u^2 - 11u + 2$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{17}+3u^{15}+\cdots+2u-1$
c_2	$u^{17}-3u^{16}+\cdots-3u+1$
c_3, c_4	$u^{17}+10u^{15}+\cdots-2u+1$
c_5	$u^{17}+2u^{14}+\cdots+u+1$
c_6	$u^{17}+3u^{16}+\cdots-3u-1$
c_7, c_8	$u^{17}-12u^{15}+\cdots+2u+1$
c_9	$u^{17}+10u^{15}+\cdots-2u-1$
c_{10}	$u^{17}-3u^{16}+\cdots-2u+1$
c_{11}, c_{12}	$u^{17}-12u^{15}+\cdots+2u-1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{17} + 6y^{16} + \cdots - 6y - 1$
c_2, c_6	$y^{17} - 11y^{16} + \cdots + 17y - 1$
c_3, c_4, c_9	$y^{17} + 20y^{16} + \cdots - 2y - 1$
c_5	$y^{17} - 6y^{15} + \cdots - 3y - 1$
c_7, c_8, c_{11} c_{12}	$y^{17} - 24y^{16} + \cdots + 16y - 1$
c_{10}	$y^{17} - 3y^{16} + \cdots + 6y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.139852 + 1.214420I$ $a = -0.441985 + 0.675736I$ $b = 1.41103 + 1.05280I$	$-7.82761 + 4.71969I$	$-3.03630 - 8.97868I$
$u = 0.139852 - 1.214420I$ $a = -0.441985 - 0.675736I$ $b = 1.41103 - 1.05280I$	$-7.82761 - 4.71969I$	$-3.03630 + 8.97868I$
$u = -0.770505$ $a = 3.24311$ $b = -0.627479$	-10.2732	6.21040
$u = 0.313732 + 0.658301I$ $a = 0.790014 - 0.247073I$ $b = -1.085060 + 0.673907I$	$-5.69788 - 3.06986I$	$-4.15450 - 0.28299I$
$u = 0.313732 - 0.658301I$ $a = 0.790014 + 0.247073I$ $b = -1.085060 - 0.673907I$	$-5.69788 + 3.06986I$	$-4.15450 + 0.28299I$
$u = -0.150767 + 1.264220I$ $a = -0.527362 - 0.894224I$ $b = 1.20771 - 0.79995I$	$-1.50192 - 3.71423I$	$3.27081 + 10.07592I$
$u = -0.150767 - 1.264220I$ $a = -0.527362 + 0.894224I$ $b = 1.20771 + 0.79995I$	$-1.50192 + 3.71423I$	$3.27081 - 10.07592I$
$u = 0.155556 + 1.352930I$ $a = -0.52002 + 1.33989I$ $b = 0.974685 + 0.508862I$	$-4.53369 + 2.21494I$	$-4.95135 - 2.79789I$
$u = 0.155556 - 1.352930I$ $a = -0.52002 - 1.33989I$ $b = 0.974685 - 0.508862I$	$-4.53369 - 2.21494I$	$-4.95135 + 2.79789I$
$u = -0.344357 + 0.507264I$ $a = 1.110850 + 0.838168I$ $b = -0.997031 - 0.404432I$	$1.30810 + 1.91528I$	$-2.43691 - 2.56388I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.344357-0.507264I$ $a=\ \ 1.110850-0.838168I$ $b=-0.997031+0.404432I$	$1.30810-1.91528I$	$-2.43691+2.56388I$
$u=\ \ 0.413428+0.204442I$ $a=\ \ 3.32259-1.68034I$ $b=-0.866225+0.129684I$	$-0.437743-0.271791I$	$1.03671-2.69788I$
$u=\ \ 0.413428-0.204442I$ $a=\ \ 3.32259+1.68034I$ $b=-0.866225-0.129684I$	$-0.437743+0.271791I$	$1.03671+2.69788I$
$u=\ \ 0.06863+1.60082I$ $a=\ \ 0.023930+0.508617I$ $b=\ \ 0.629370+0.088764I$	$-7.42886+1.63142I$	$-1.52360-3.06037I$
$u=\ \ 0.06863-1.60082I$ $a=\ \ 0.023930-0.508617I$ $b=\ \ 0.629370-0.088764I$	$-7.42886-1.63142I$	$-1.52360+3.06037I$
$u=-0.21082+1.61302I$ $a=-0.379564-1.071330I$ $b=\ \ 0.539259-0.235493I$	$-16.4469-3.7909I$	$-6.31007+0.92878I$
$u=-0.21082-1.61302I$ $a=-0.379564+1.071330I$ $b=\ \ 0.539259+0.235493I$	$-16.4469+3.7909I$	$-6.31007-0.92878I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{17}+3u^{15}+\cdots+2u-1)(u^{76}+5u^{75}+\cdots+5251032u+1662433)$
c_2	$(u^{17}-3u^{16}+\cdots-3u+1)(u^{76}-20u^{74}+\cdots-13u+1)$
c_3, c_4	$(u^{17}+10u^{15}+\cdots-2u+1)(u^{76}+u^{75}+\cdots-4u-8)$
c_5	$(u^{17}+2u^{14}+\cdots+u+1)(u^{76}+u^{75}+\cdots-39u+19)$
c_6	$(u^{17}+3u^{16}+\cdots-3u-1)(u^{76}-20u^{74}+\cdots-13u+1)$
c_7, c_8	$(u^{17}-12u^{15}+\cdots+2u+1)(u^{76}-u^{75}+\cdots-122u-19)$
c_9	$(u^{17}+10u^{15}+\cdots-2u-1)(u^{76}+u^{75}+\cdots-4u-8)$
c_{10}	$(u^{17}-3u^{16}+\cdots-2u+1)(u^{76}-4u^{75}+\cdots+14u+1)$
c_{11}, c_{12}	$(u^{17}-12u^{15}+\cdots+2u-1)(u^{76}-u^{75}+\cdots-122u-19)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{17}+6y^{16}+\cdots-6y-1)$ $\cdot(y^{76}-39y^{75}+\cdots-83103653061344y+2763683479489)$
c_2, c_6	$(y^{17}-11y^{16}+\cdots+17y-1)(y^{76}-40y^{75}+\cdots-75y+1)$
c_3, c_4, c_9	$(y^{17}+20y^{16}+\cdots-2y-1)(y^{76}+83y^{75}+\cdots+1264y+64)$
c_5	$(y^{17}-6y^{15}+\cdots-3y-1)(y^{76}-5y^{75}+\cdots-7791y+361)$
c_7, c_8, c_{11} c_{12}	$(y^{17}-24y^{16}+\cdots+16y-1)(y^{76}-97y^{75}+\cdots-10590y+361)$
c_{10}	$(y^{17}-3y^{16}+\cdots+6y-1)(y^{76}+60y^{74}+\cdots-172y+1)$