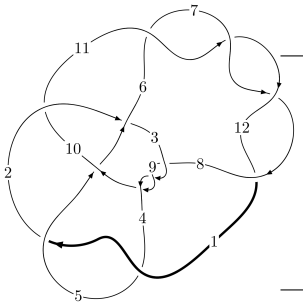
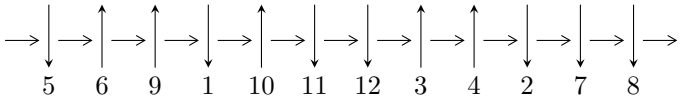
$12a_{1238}$ $(K12a_{1238})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle 1.62330 \times 10^{233} u^{81} - 1.12307 \times 10^{233} u^{80} + \cdots + 7.45191 \times 10^{232} b + 8.93587 \times 10^{234},$$
$$- 1.56282 \times 10^{234} u^{81} - 3.71971 \times 10^{233} u^{80} + \cdots + 3.72595 \times 10^{233} a - 2.44109 \times 10^{236},$$
$$u^{82} - 29 u^{80} + \cdots + 580 u + 25 \rangle$$
$$I_2^u = \langle -57 u^{16} + 139 u^{15} + \cdots + b + 105,\ 18 u^{16} - 43 u^{15} + \cdots + a - 24,\ u^{17} - 3 u^{16} + \cdots - 3 u + 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 99 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. $\boldsymbol{I_1^u = \langle 1.62 \times 10^{233} u^{81} - 1.12 \times 10^{233} u^{80} + \cdots + 7.45 \times 10^{232} b + 8.94 \times 10^{234},\ -1.56 \times 10^{234} u^{81} - 3.72 \times 10^{233} u^{80} + \cdots + 3.73 \times 10^{233} a - 2.44 \times 10^{236},\ u^{82} - 29 u^{80} + \cdots + 580 u + 25 \rangle}$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

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

$$a_2 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 4.19443u^{81} + 0.998323u^{80} + \cdots + 12103.0u + 655.158 \\ -2.17837u^{81} + 1.50709u^{80} + \cdots - 2279.85u - 119.914 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 2.01606u^{81} + 2.50541u^{80} + \cdots + 9823.13u + 535.245 \\ -2.17837u^{81} + 1.50709u^{80} + \cdots - 2279.85u - 119.914 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 4.65242u^{81} - 1.59030u^{80} + \cdots + 8732.87u + 474.826 \\ -2.43795u^{81} + 1.31148u^{80} + \cdots - 3819.62u - 208.334 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 3.51386u^{81} + 1.04832u^{80} + \cdots + 10330.4u + 553.673 \\ -2.43681u^{81} + 1.96106u^{80} + \cdots - 1979.41u - 101.915 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -7.59176u^{81} + 2.77225u^{80} + \cdots - 13921.6u - 746.885 \\ 0.100451u^{81} + 0.634586u^{80} + \cdots + 2030.94u + 123.163 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 4.09643u^{81} - 2.86268u^{80} + \cdots + 2668.54u + 89.1960 \\ 3.37277u^{81} - 1.62221u^{80} + \cdots + 4955.44u + 259.192 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 2.14385u^{81} - 0.151279u^{80} + \cdots + 4824.36u + 223.253 \\ 2.86534u^{81} - 0.999373u^{80} + \cdots + 5564.66u + 300.621 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -4.86395u^{81} + 0.711191u^{80} + \cdots - 10254.4u - 525.349 \\ -2.54931u^{81} + 1.00523u^{80} + \cdots - 4203.94u - 218.636 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 2.46764u^{81} + 2.98675u^{80} + \cdots + 13265.8u + 747.283$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4	$u^{82} - 29u^{80} + \cdots + 580u + 25$
c_2	$u^{82} - 5u^{81} + \cdots + 2079u + 931$
c_3, c_8, c_9	$u^{82} - u^{81} + \cdots + 181u + 173$
c_5	$u^{82} + 2u^{81} + \cdots + 17u - 1$
c_6, c_7, c_{11} c_{12}	$u^{82} - u^{81} + \cdots - 79u - 7$
c_{10}	$u^{82} + 2u^{81} + \cdots - 3884u + 1867$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4	$y^{82} - 58y^{81} + \cdots - 62350y + 625$
c_2	$y^{82} + 15y^{81} + \cdots + 9331805y + 866761$
c_3, c_8, c_9	$y^{82} - 77y^{81} + \cdots + 235043y + 29929$
c_5	$y^{82} + 64y^{80} + \cdots - 209y + 1$
c_6, c_7, c_{11} c_{12}	$y^{82} - 101y^{81} + \cdots - 2405y + 49$
c_{10}	$y^{82} - 34y^{81} + \cdots - 204854804y + 3485689$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.934521+0.347459I$ $a=\ 0.256869-0.427602I$ $b=\ 0.366312-0.532440I$	$-1.56095+1.32976I$	0
$u=-0.934521-0.347459I$ $a=\ 0.256869+0.427602I$ $b=\ 0.366312+0.532440I$	$-1.56095-1.32976I$	0
$u=-0.985856+0.133508I$ $a=\ 1.42926-1.69263I$ $b=-1.338240-0.226304I$	$-0.18186+2.94088I$	0
$u=-0.985856-0.133508I$ $a=\ 1.42926+1.69263I$ $b=-1.338240+0.226304I$	$-0.18186-2.94088I$	0
$u=\ 0.680966+0.774466I$ $a=-1.285520-0.554886I$ $b=\ 1.343090+0.338900I$	$-3.26211+2.41526I$	0
$u=\ 0.680966-0.774466I$ $a=-1.285520+0.554886I$ $b=\ 1.343090-0.338900I$	$-3.26211-2.41526I$	0
$u=\ 0.943857$ $a=\ 1.46985$ $b=-1.84151$	-0.856208	0
$u=\ 0.000750+0.932894I$ $a=-1.87427-0.30470I$ $b=\ 1.45322-0.06591I$	$7.14647-2.26483I$	0
$u=\ 0.000750-0.932894I$ $a=-1.87427+0.30470I$ $b=\ 1.45322+0.06591I$	$7.14647+2.26483I$	0
$u=-1.066400+0.200953I$ $a=-1.82922+1.16741I$ $b=\ 1.46675+0.30221I$	$-7.87907+6.39586I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.066400-0.200953I$ $a=-1.82922-1.16741I$ $b=\ \ 1.46675-0.30221I$	$-7.87907-6.39586I$	0
$u=-0.738427+0.486038I$ $a=-0.819329+0.132184I$ $b=-0.131483+0.984194I$	$-7.99328+2.08374I$	0
$u=-0.738427-0.486038I$ $a=-0.819329-0.132184I$ $b=-0.131483-0.984194I$	$-7.99328-2.08374I$	0
$u=\ \ 0.937847+0.605715I$ $a=\ \ 1.39663+1.28141I$ $b=-1.35817+0.50981I$	$-4.06787-7.61264I$	0
$u=\ \ 0.937847-0.605715I$ $a=\ \ 1.39663-1.28141I$ $b=-1.35817-0.50981I$	$-4.06787+7.61264I$	0
$u=-0.164401+1.104770I$ $a=-0.068114+0.588364I$ $b=-0.219137-0.621589I$	$-8.99433+5.16744I$	0
$u=-0.164401-1.104770I$ $a=-0.068114-0.588364I$ $b=-0.219137+0.621589I$	$-8.99433-5.16744I$	0
$u=-1.086900+0.269679I$ $a=\ \ 0.334063+0.325688I$ $b=-0.863302+0.735990I$	$-3.51083+2.83032I$	0
$u=-1.086900-0.269679I$ $a=\ \ 0.334063-0.325688I$ $b=-0.863302-0.735990I$	$-3.51083-2.83032I$	0
$u=\ \ 0.991470+0.534374I$ $a=-1.08848-1.20120I$ $b=\ \ 1.362720-0.373905I$	$3.12917-5.58769I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.991470 - 0.534374I$ $a = -1.08848 + 1.20120I$ $b = 1.362720 + 0.373905I$	$3.12917 + 5.58769I$	0
$u = -0.868419 + 0.092461I$ $a = -0.59650 + 2.11772I$ $b = 1.190840 + 0.094481I$	$0.28543 - 1.79070I$	0
$u = -0.868419 - 0.092461I$ $a = -0.59650 - 2.11772I$ $b = 1.190840 - 0.094481I$	$0.28543 + 1.79070I$	0
$u = -0.102526 + 0.849065I$ $a = -0.034516 - 0.292271I$ $b = 0.351504 + 0.471570I$	$-0.90967 + 3.66182I$	0
$u = -0.102526 - 0.849065I$ $a = -0.034516 + 0.292271I$ $b = 0.351504 - 0.471570I$	$-0.90967 - 3.66182I$	0
$u = 1.081370 + 0.424377I$ $a = 0.745037 + 0.932264I$ $b = -1.384510 + 0.245822I$	$3.77253 - 2.11296I$	0
$u = 1.081370 - 0.424377I$ $a = 0.745037 - 0.932264I$ $b = -1.384510 - 0.245822I$	$3.77253 + 2.11296I$	0
$u = 0.465567 + 0.689784I$ $a = 1.41558 + 0.55639I$ $b = -1.43484 - 0.12440I$	$4.60977 + 0.87355I$	0
$u = 0.465567 - 0.689784I$ $a = 1.41558 - 0.55639I$ $b = -1.43484 + 0.12440I$	$4.60977 - 0.87355I$	0
$u = -0.792665 + 0.196482I$ $a = 0.373105 - 0.661464I$ $b = 0.071568 - 0.766823I$	$-1.11360 + 1.22701I$	$0. - 4.63087I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.792665-0.196482I$ $a=\ 0.373105+0.661464I$ $b=\ 0.071568+0.766823I$	$-1.11360-1.22701I$	$0.+4.63087I$
$u=\ 1.19140$ $a=-0.259535$ $b=\ 1.41908$	-1.56818	0
$u=\ 0.807827$ $a=-1.35683$ $b=\ 0.556755$	-2.84786	1.78860
$u=\ 1.194700+0.129051I$ $a=-0.531258+0.795686I$ $b=\ 0.095650+0.553160I$	$-4.75226+0.05742I$	0
$u=\ 1.194700-0.129051I$ $a=-0.531258-0.795686I$ $b=\ 0.095650-0.553160I$	$-4.75226-0.05742I$	0
$u=\ 1.166270+0.321488I$ $a=-0.153610-0.853500I$ $b=\ 0.225832-0.623122I$	$-2.23682-4.25562I$	0
$u=\ 1.166270-0.321488I$ $a=-0.153610+0.853500I$ $b=\ 0.225832+0.623122I$	$-2.23682+4.25562I$	0
$u=-1.208780+0.276098I$ $a=-0.584063-0.090912I$ $b=\ 1.013600-0.893633I$	$-11.84370+4.09765I$	0
$u=-1.208780-0.276098I$ $a=-0.584063+0.090912I$ $b=\ 1.013600+0.893633I$	$-11.84370-4.09765I$	0
$u=-0.093132+1.252800I$ $a=\ 1.78653-0.00049I$ $b=-1.41648+0.17073I$	$4.74746-6.03651I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.093132-1.252800I$ $a=\ \ 1.78653+0.00049I$ $b=-1.41648-0.17073I$	$4.74746+6.03651I$	0
$u=\ \ 0.728476$ $a=-1.20443$ $b=\ \ 1.71906$	6.36750	-14.0750
$u=\ \ 0.887021+0.912615I$ $a=\ \ 1.79799+1.13995I$ $b=-1.188290-0.136424I$	$-6.29540-2.57592I$	0
$u=\ \ 0.887021-0.912615I$ $a=\ \ 1.79799-1.13995I$ $b=-1.188290+0.136424I$	$-6.29540+2.57592I$	0
$u=-0.698988+0.129902I$ $a=-0.18085-2.88076I$ $b=-1.144550+0.136710I$	$-6.50500-4.75604I$	$-7.37990+2.43004I$
$u=-0.698988-0.129902I$ $a=-0.18085+2.88076I$ $b=-1.144550-0.136710I$	$-6.50500+4.75604I$	$-7.37990-2.43004I$
$u=\ \ 1.027950+0.833407I$ $a=-1.64501-0.95974I$ $b=\ \ 1.235600-0.062510I$	$0.88385-3.01527I$	0
$u=\ \ 1.027950-0.833407I$ $a=-1.64501+0.95974I$ $b=\ \ 1.235600+0.062510I$	$0.88385+3.01527I$	0
$u=\ \ 1.266880+0.432843I$ $a=\ \ 0.403243+0.462038I$ $b=-0.342569+0.861570I$	$-4.98259-8.18738I$	0
$u=\ \ 1.266880-0.432843I$ $a=\ \ 0.403243-0.462038I$ $b=-0.342569-0.861570I$	$-4.98259+8.18738I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.343210 + 0.002023I$ $a = 0.758946 + 0.291628I$ $b = -0.377797 + 0.711575I$	$-13.80490 - 2.62993I$	0
$u = 1.343210 - 0.002023I$ $a = 0.758946 - 0.291628I$ $b = -0.377797 - 0.711575I$	$-13.80490 + 2.62993I$	0
$u = -1.295940 + 0.436278I$ $a = -0.371872 + 0.202924I$ $b = 0.182700 + 0.498660I$	$-4.55328 + 1.51053I$	0
$u = -1.295940 - 0.436278I$ $a = -0.371872 - 0.202924I$ $b = 0.182700 - 0.498660I$	$-4.55328 - 1.51053I$	0
$u = 1.43015$ $a = -0.634353$ $b = 1.32243$	-1.52558	0
$u = 1.35007 + 0.48468I$ $a = -0.467441 - 0.197285I$ $b = 0.361745 - 1.034720I$	$-13.6514 - 10.5493I$	0
$u = 1.35007 - 0.48468I$ $a = -0.467441 + 0.197285I$ $b = 0.361745 + 1.034720I$	$-13.6514 + 10.5493I$	0
$u = -1.35585 + 0.50291I$ $a = 0.848857 - 1.108750I$ $b = -1.387010 - 0.256622I$	$2.90248 + 7.50413I$	0
$u = -1.35585 - 0.50291I$ $a = 0.848857 + 1.108750I$ $b = -1.387010 + 0.256622I$	$2.90248 - 7.50413I$	0
$u = -1.42649 + 0.32907I$ $a = -0.303670 + 0.877231I$ $b = 1.281450 + 0.170102I$	$-1.06903 + 2.42900I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.42649-0.32907I$ $a=-0.303670-0.877231I$ $b=\ \ 1.281450-0.170102I$	$-1.06903-2.42900I$	0
$u=\ \ 0.107130+0.515113I$ $a=\ \ 0.478221-0.232915I$ $b=-0.480551-0.311322I$	$0.836840+0.981184I$	$3.21796-3.18238I$
$u=\ \ 0.107130-0.515113I$ $a=\ \ 0.478221+0.232915I$ $b=-0.480551+0.311322I$	$0.836840-0.981184I$	$3.21796+3.18238I$
$u=\ \ 1.21664+0.84263I$ $a=\ \ 1.66419+0.65205I$ $b=-1.376890+0.199175I$	$0.44389-4.10272I$	0
$u=\ \ 1.21664-0.84263I$ $a=\ \ 1.66419-0.65205I$ $b=-1.376890-0.199175I$	$0.44389+4.10272I$	0
$u=-0.18740+1.47187I$ $a=-1.71372+0.17580I$ $b=\ \ 1.386330-0.259259I$	$-3.87177-8.43053I$	0
$u=-0.18740-1.47187I$ $a=-1.71372-0.17580I$ $b=\ \ 1.386330+0.259259I$	$-3.87177+8.43053I$	0
$u=-1.36890+0.61647I$ $a=-1.17582+0.99420I$ $b=\ \ 1.44888+0.34016I$	$0.71934+12.51550I$	0
$u=-1.36890-0.61647I$ $a=-1.17582-0.99420I$ $b=\ \ 1.44888-0.34016I$	$0.71934-12.51550I$	0
$u=-1.39571+0.69298I$ $a=\ \ 1.36270-0.85917I$ $b=-1.49254-0.41405I$	$-7.7647+15.7366I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.39571-0.69298I$ $a=\ \ 1.36270+0.85917I$ $b=-1.49254+0.41405I$	$-7.7647-15.7366I$	0
$u=\ \ 1.31553+0.88818I$ $a=-1.76649-0.51065I$ $b=\ \ 1.47035-0.26304I$	$-7.36965-4.81620I$	0
$u=\ \ 1.31553-0.88818I$ $a=-1.76649+0.51065I$ $b=\ \ 1.47035+0.26304I$	$-7.36965+4.81620I$	0
$u=-1.53840+0.46979I$ $a=\ \ 0.486909-0.045020I$ $b=-0.427428-0.623833I$	$-13.46780+1.47338I$	0
$u=-1.53840-0.46979I$ $a=\ \ 0.486909+0.045020I$ $b=-0.427428+0.623833I$	$-13.46780-1.47338I$	0
$u=-0.242978+0.057112I$ $a=-3.75188-3.47217I$ $b=-0.402691-0.642389I$	$-8.57778-2.10932I$	$-7.06076-4.05023I$
$u=-0.242978-0.057112I$ $a=-3.75188+3.47217I$ $b=-0.402691+0.642389I$	$-8.57778+2.10932I$	$-7.06076+4.05023I$
$u=-1.75946$ $a=\ \ 0.319097$ $b=-1.09179$	-12.7835	0
$u=-0.174156+0.108446I$ $a=\ \ 1.11542+3.03605I$ $b=\ \ 0.284389+0.455864I$	$-1.125760-0.792790I$	$-5.63857+0.46918I$
$u=-0.174156-0.108446I$ $a=\ \ 1.11542-3.03605I$ $b=\ \ 0.284389-0.455864I$	$-1.125760+0.792790I$	$-5.63857-0.46918I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.182672$ $a=\ \ 5.86792$ $b=-1.54836$	4.17983	4.89490
$u=\ \ 2.22736$ $a=\ \ 0.974429$ $b=-1.18778$	-12.0641	0

II. $I_2^u = \langle -57u^{16} + 139u^{15} + \cdots + b + 105,\ 18u^{16} - 43u^{15} + \cdots + a - 24,\ u^{17} - 3u^{16} + \cdots - 3u + 1 \rangle$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

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

$$a_2 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -18u^{16} + 43u^{15} + \cdots - 35u + 24 \\ 57u^{16} - 139u^{15} + \cdots + 124u - 105 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 39u^{16} - 96u^{15} + \cdots + 89u - 81 \\ 57u^{16} - 139u^{15} + \cdots + 124u - 105 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -u^{16} + 10u^{14} + \cdots - 4u - 7 \\ u^{16} - 2u^{15} + \cdots + u - 2 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 14u^{16} - 35u^{15} + \cdots + 31u - 33 \\ 74u^{16} - 180u^{15} + \cdots + 165u - 139 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -10u^{16} + 28u^{15} + \cdots - 12u + 26 \\ -u^{16} + 3u^{15} + \cdots + 4u + 4 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -33u^{16} + 85u^{15} + \cdots - 62u + 68 \\ -105u^{16} + 258u^{15} + \cdots - 217u + 191 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -62u^{16} + 152u^{15} + \cdots - 127u + 120 \\ -26u^{16} + 68u^{15} + \cdots - 48u + 67 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 33u^{16} - 85u^{15} + \cdots + 62u - 69 \\ 18u^{16} - 49u^{15} + \cdots + 21u - 42 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes

$= 279u^{16} - 670u^{15} - 1521u^{14} + 4682u^{13} + 1978u^{12} - 12842u^{11} + 2106u^{10} + 18722u^9 - 9032u^8 - 16445u^7 + 11324u^6 + 8791u^5 - 8052u^4 - 3132u^3 + 2975u^2 + 642u - 489$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{17}+3u^{16}+\cdots-3u-1$
c_2	$u^{17}-3u^{14}+\cdots-2u+1$
c_3	$u^{17}-10u^{15}+\cdots+2u-1$
c_4	$u^{17}-3u^{16}+\cdots-3u+1$
c_5	$u^{17}+u^{16}+\cdots+2u^3+1$
c_6, c_7	$u^{17}-12u^{15}+\cdots+2u+1$
c_8, c_9	$u^{17}-10u^{15}+\cdots+2u+1$
c_{10}	$u^{17}+3u^{16}+\cdots-3u-1$
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, c_4	$y^{17} - 17y^{16} + \cdots + 17y - 1$
c_2	$y^{17} - 12y^{15} + \cdots - 6y - 1$
c_3, c_8, c_9	$y^{17} - 20y^{16} + \cdots + 12y - 1$
c_5	$y^{17} - 3y^{16} + \cdots + 6y^2 - 1$
c_6, c_7, c_{11} c_{12}	$y^{17} - 24y^{16} + \cdots + 24y - 1$
c_{10}	$y^{17} - 9y^{16} + \cdots + 11y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.671622 + 0.694992I$ $a = -2.66663 - 0.87339I$ $b = 1.340170 - 0.277588I$	$-5.47381 - 6.16611I$	$-4.47218 + 5.21995I$
$u = 0.671622 - 0.694992I$ $a = -2.66663 + 0.87339I$ $b = 1.340170 + 0.277588I$	$-5.47381 + 6.16611I$	$-4.47218 - 5.21995I$
$u = -0.820990 + 0.307027I$ $a = -0.609243 + 0.729341I$ $b = -0.410410 + 0.486858I$	$-1.85299 + 1.83764I$	$-10.22921 - 7.07662I$
$u = -0.820990 - 0.307027I$ $a = -0.609243 - 0.729341I$ $b = -0.410410 - 0.486858I$	$-1.85299 - 1.83764I$	$-10.22921 + 7.07662I$
$u = -1.111800 + 0.192631I$ $a = -0.592249 - 0.482310I$ $b = 0.402589 - 0.187905I$	$-3.71820 + 0.31253I$	$-7.35969 - 1.39651I$
$u = -1.111800 - 0.192631I$ $a = -0.592249 + 0.482310I$ $b = 0.402589 + 0.187905I$	$-3.71820 - 0.31253I$	$-7.35969 + 1.39651I$
$u = 0.973005 + 0.667865I$ $a = 1.82110 + 1.10902I$ $b = -1.315980 + 0.182191I$	$1.52051 - 4.20124I$	$-0.29072 + 6.76546I$
$u = 0.973005 - 0.667865I$ $a = 1.82110 - 1.10902I$ $b = -1.315980 - 0.182191I$	$1.52051 + 4.20124I$	$-0.29072 - 6.76546I$
$u = -0.662661 + 0.322036I$ $a = 1.65111 - 0.63989I$ $b = 0.454005 - 0.653361I$	$-8.81272 + 2.78715I$	$-10.84432 - 5.92009I$
$u = -0.662661 - 0.322036I$ $a = 1.65111 + 0.63989I$ $b = 0.454005 + 0.653361I$	$-8.81272 - 2.78715I$	$-10.84432 + 5.92009I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \ \ 0.663836$ $a = \ \ 2.25446$ $b = -1.58316$	3.65134	-10.8550
$u = \ \ 0.557324$ $a = -0.640649$ $b = \ \ 1.67161$	6.66575	13.2870
$u = \ \ 1.39919 + 0.47372I$ $a = -0.775209 - 0.874913I$ $b = \ \ 1.283880 - 0.084545I$	$-0.54538 - 1.32796I$	$-3.55104 + 0.18556I$
$u = \ \ 1.39919 - 0.47372I$ $a = -0.775209 + 0.874913I$ $b = \ \ 1.283880 + 0.084545I$	$-0.54538 + 1.32796I$	$-3.55104 - 0.18556I$
$u = \ \ 0.496618$ $a = -0.662890$ $b = -1.73598$	0.265606	1.03910
$u = -1.71714$ $a = \ \ 0.620217$ $b = -0.646248$	-13.8143	-13.8510
$u = \ \ 2.10262$ $a = \ \ 0.771100$ $b = -1.21474$	-11.6411	4.87440

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{17}+3u^{16}+\cdots-3u-1)(u^{82}-29u^{80}+\cdots+580u+25)$
c_2	$(u^{17}-3u^{14}+\cdots-2u+1)(u^{82}-5u^{81}+\cdots+2079u+931)$
c_3	$(u^{17}-10u^{15}+\cdots+2u-1)(u^{82}-u^{81}+\cdots+181u+173)$
c_4	$(u^{17}-3u^{16}+\cdots-3u+1)(u^{82}-29u^{80}+\cdots+580u+25)$
c_5	$(u^{17}+u^{16}+\cdots+2u^3+1)(u^{82}+2u^{81}+\cdots+17u-1)$
c_6, c_7	$(u^{17}-12u^{15}+\cdots+2u+1)(u^{82}-u^{81}+\cdots-79u-7)$
c_8, c_9	$(u^{17}-10u^{15}+\cdots+2u+1)(u^{82}-u^{81}+\cdots+181u+173)$
c_{10}	$(u^{17}+3u^{16}+\cdots-3u-1)(u^{82}+2u^{81}+\cdots-3884u+1867)$
c_{11}, c_{12}	$(u^{17}-12u^{15}+\cdots+2u-1)(u^{82}-u^{81}+\cdots-79u-7)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_4	$(y^{17} - 17y^{16} + \cdots + 17y - 1)(y^{82} - 58y^{81} + \cdots - 62350y + 625)$
c_2	$(y^{17} - 12y^{15} + \cdots - 6y - 1)(y^{82} + 15y^{81} + \cdots + 9331805y + 866761)$
c_3, c_8, c_9	$(y^{17} - 20y^{16} + \cdots + 12y - 1)(y^{82} - 77y^{81} + \cdots + 235043y + 29929)$
c_5	$(y^{17} - 3y^{16} + \cdots + 6y^2 - 1)(y^{82} + 64y^{80} + \cdots - 209y + 1)$
c_6, c_7, c_{11} c_{12}	$(y^{17} - 24y^{16} + \cdots + 24y - 1)(y^{82} - 101y^{81} + \cdots - 2405y + 49)$
c_{10}	$(y^{17} - 9y^{16} + \cdots + 11y - 1)$ $\cdot (y^{82} - 34y^{81} + \cdots - 204854804y + 3485689)$