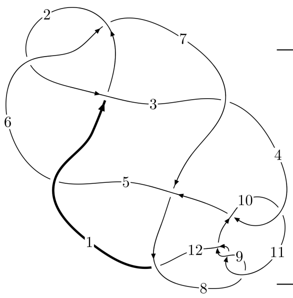
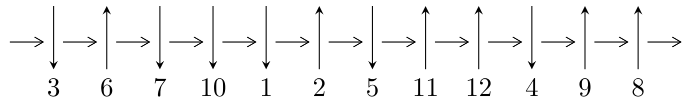
$12a_{0258}$ ($K12a_{0258}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -u^{87} + u^{86} + \cdots + b + u,\ 2u^{87} - 2u^{86} + \cdots + a + 1,\ u^{89} - 2u^{88} + \cdots - 3u + 1\rangle$$
$$I_2^u = \langle b + 1,\ -u^3 - u^2 + a - u - 1,\ u^5 + u^4 + 2u^3 + u^2 + u + 1\rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 94 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.

$$\boldsymbol{I_1^u = \langle -u^{87}+u^{86}+\cdots+b+u,\ 2u^{87}-2u^{86}+\cdots+a+1,\ u^{89}-2u^{88}+\cdots-3u+1\rangle}$$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u \\ u^3+u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -u^3 \\ u^3+u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -2u^{87}+2u^{86}+\cdots+3u-1 \\ u^{87}-u^{86}+\cdots+u^2-u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -u^6-u^4+1 \\ -u^8-2u^6-2u^4 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} u^{14}+3u^{12}+4u^{10}+u^8-2u^6-2u^4+1 \\ u^{16}+4u^{14}+8u^{12}+8u^{10}+4u^8 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -u^{84}+u^{83}+\cdots-u^3+2u^2 \\ -u^{86}+u^{85}+\cdots+u^5-u^2 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^3 \\ u^5+u^3+u \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} u^{25}+6u^{23}+\cdots+3u^5-u \\ u^{27}+7u^{25}+\cdots+u^3+u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u^{87}+u^{86}+\cdots-u^3+u \\ u^{87}-u^{86}+\cdots+4u^5-u^4 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -4u^{88}+13u^{87}+\cdots-20u+9$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{89}+48u^{88}+\cdots+u-1$
c_2, c_6	$u^{89}-2u^{88}+\cdots-3u+1$
c_3, c_5	$u^{89}+2u^{88}+\cdots+9u+1$
c_4, c_{10}	$u^{89}-u^{88}+\cdots+120u^2+32$
c_7	$u^{89}-12u^{88}+\cdots-3133u+277$
c_8, c_9, c_{11}	$u^{89}+6u^{88}+\cdots+3u+1$
c_{12}	$u^{89}-33u^{88}+\cdots-7680u+1024$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{89} - 12y^{88} + \cdots + 9y - 1$
c_2, c_6	$y^{89} + 48y^{88} + \cdots + y - 1$
c_3, c_5	$y^{89} - 72y^{88} + \cdots + 145y - 1$
c_4, c_{10}	$y^{89} + 33y^{88} + \cdots - 7680y - 1024$
c_7	$y^{89} - 12y^{88} + \cdots - 1273175y - 76729$
c_8, c_9, c_{11}	$y^{89} - 76y^{88} + \cdots - 21y - 1$
c_{12}	$y^{89} + 37y^{88} + \cdots - 14024704y - 1048576$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.517663 + 0.853057I$ $a = 0.063168 + 1.010150I$ $b = 0.0075337 + 0.0380861I$	$3.01994 + 4.86569I$	0
$u = 0.517663 - 0.853057I$ $a = 0.063168 - 1.010150I$ $b = 0.0075337 - 0.0380861I$	$3.01994 - 4.86569I$	0
$u = 0.448323 + 0.897280I$ $a = 0.215044 - 0.933260I$ $b = -0.0257289 + 0.0936950I$	$-1.14920 + 2.08020I$	0
$u = 0.448323 - 0.897280I$ $a = 0.215044 + 0.933260I$ $b = -0.0257289 - 0.0936950I$	$-1.14920 - 2.08020I$	0
$u = -0.527593 + 0.875296I$ $a = 0.04378 + 1.59082I$ $b = 1.91935 - 0.02195I$	$0.04402 - 6.76781I$	0
$u = -0.527593 - 0.875296I$ $a = 0.04378 - 1.59082I$ $b = 1.91935 + 0.02195I$	$0.04402 + 6.76781I$	0
$u = 0.045374 + 1.026840I$ $a = -1.396320 + 0.027423I$ $b = 0.762961 + 0.584535I$	$-3.82045 + 2.55031I$	0
$u = 0.045374 - 1.026840I$ $a = -1.396320 - 0.027423I$ $b = 0.762961 - 0.584535I$	$-3.82045 - 2.55031I$	0
$u = -0.036660 + 0.970796I$ $a = 1.45328 + 0.01748I$ $b = -0.651637 - 0.810834I$	$-0.611498 - 1.156220I$	0
$u = -0.036660 - 0.970796I$ $a = 1.45328 - 0.01748I$ $b = -0.651637 + 0.810834I$	$-0.611498 + 1.156220I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.487998+0.832637I$ $a=-0.15557-1.88628I$ $b=-2.07823+0.10861I$	$2.18808-2.44281I$	0
$u=-0.487998-0.832637I$ $a=-0.15557+1.88628I$ $b=-2.07823-0.10861I$	$2.18808+2.44281I$	0
$u=-0.558903+0.882043I$ $a=-0.09933-1.47746I$ $b=-1.86773+0.05365I$	$5.18287-10.77750I$	0
$u=-0.558903-0.882043I$ $a=-0.09933+1.47746I$ $b=-1.86773-0.05365I$	$5.18287+10.77750I$	0
$u=-0.570217+0.765010I$ $a=\ \ 0.46901+1.53140I$ $b=\ \ 1.82570-0.18189I$	$9.81950-2.26683I$	$9.08032+0.I$
$u=-0.570217-0.765010I$ $a=\ \ 0.46901-1.53140I$ $b=\ \ 1.82570+0.18189I$	$9.81950+2.26683I$	$9.08032+0.I$
$u=\ \ 0.083364+1.074910I$ $a=\ \ 1.42919-0.06261I$ $b=-0.891162-0.475610I$	$0.70579+6.29860I$	0
$u=\ \ 0.083364-1.074910I$ $a=\ \ 1.42919+0.06261I$ $b=-0.891162+0.475610I$	$0.70579-6.29860I$	0
$u=\ \ 0.479594+1.025290I$ $a=-0.47420+1.59768I$ $b=-0.230291-0.441844I$	$3.30132-0.46498I$	0
$u=\ \ 0.479594-1.025290I$ $a=-0.47420-1.59768I$ $b=-0.230291+0.441844I$	$3.30132+0.46498I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.472021 + 0.710727I$ $a = -0.85417 - 1.74292I$ $b = -1.77547 + 0.50967I$	$2.55068 - 1.56908I$	$7.62928 + 3.25616I$
$u = -0.472021 - 0.710727I$ $a = -0.85417 + 1.74292I$ $b = -1.77547 - 0.50967I$	$2.55068 + 1.56908I$	$7.62928 - 3.25616I$
$u = -0.586040 + 0.618786I$ $a = -0.73818 - 1.29420I$ $b = -1.52005 + 0.15803I$	$5.92566 + 6.23892I$	$6.49865 - 3.39583I$
$u = -0.586040 - 0.618786I$ $a = -0.73818 + 1.29420I$ $b = -1.52005 - 0.15803I$	$5.92566 - 6.23892I$	$6.49865 + 3.39583I$
$u = 0.318408 + 1.117220I$ $a = -1.78251 + 0.77997I$ $b = 0.924881 - 0.530367I$	$3.57675 - 0.11414I$	0
$u = 0.318408 - 1.117220I$ $a = -1.78251 - 0.77997I$ $b = 0.924881 + 0.530367I$	$3.57675 + 0.11414I$	0
$u = 0.821589 + 0.144980I$ $a = 0.196200 - 0.728902I$ $b = -2.16374 + 0.76355I$	$1.51929 - 11.34500I$	$2.72775 + 7.03467I$
$u = 0.821589 - 0.144980I$ $a = 0.196200 + 0.728902I$ $b = -2.16374 - 0.76355I$	$1.51929 + 11.34500I$	$2.72775 - 7.03467I$
$u = 0.505613 + 0.657363I$ $a = -0.353180 - 0.878368I$ $b = -0.302339 + 0.026911I$	$3.57630 - 0.65503I$	$5.49721 - 0.67822I$
$u = 0.505613 - 0.657363I$ $a = -0.353180 + 0.878368I$ $b = -0.302339 - 0.026911I$	$3.57630 + 0.65503I$	$5.49721 + 0.67822I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.824465+0.058272I$ $a=\ \ 0.173870+0.454318I$ $b=\ \ 0.247863+0.493086I$	$-0.95526-1.82340I$	$2.00883+3.90836I$
$u=-0.824465-0.058272I$ $a=\ \ 0.173870-0.454318I$ $b=\ \ 0.247863-0.493086I$	$-0.95526+1.82340I$	$2.00883-3.90836I$
$u=\ \ 0.807857+0.130335I$ $a=-0.257591+0.772643I$ $b=\ \ 2.20223-0.92168I$	$-3.42851-7.01835I$	$-1.34084+5.91260I$
$u=\ \ 0.807857-0.130335I$ $a=-0.257591-0.772643I$ $b=\ \ 2.20223+0.92168I$	$-3.42851+7.01835I$	$-1.34084-5.91260I$
$u=\ \ 0.302386+0.751486I$ $a=\ \ 0.521010+0.407084I$ $b=\ \ 0.034676-0.191296I$	$-0.337993+1.231430I$	$-4.05082-5.12187I$
$u=\ \ 0.302386-0.751486I$ $a=\ \ 0.521010-0.407084I$ $b=\ \ 0.034676+0.191296I$	$-0.337993-1.231430I$	$-4.05082+5.12187I$
$u=-0.527637+0.613852I$ $a=\ \ 0.86201+1.35059I$ $b=\ \ 1.47210-0.29714I$	$0.77238+2.47093I$	$2.67534-2.90980I$
$u=-0.527637-0.613852I$ $a=\ \ 0.86201-1.35059I$ $b=\ \ 1.47210+0.29714I$	$0.77238-2.47093I$	$2.67534+2.90980I$
$u=-0.800030+0.093267I$ $a=-0.289719-0.456598I$ $b=-0.393360-0.440336I$	$-4.50871+1.54087I$	$-3.93955-0.53955I$
$u=-0.800030-0.093267I$ $a=-0.289719+0.456598I$ $b=-0.393360+0.440336I$	$-4.50871-1.54087I$	$-3.93955+0.53955I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.792991 + 0.129489I$ $a = 0.362212 + 0.510270I$ $b = 0.508182 + 0.450575I$	$-0.18794 + 5.08047I$	$1.48224 - 3.61614I$
$u = -0.792991 - 0.129489I$ $a = 0.362212 - 0.510270I$ $b = 0.508182 - 0.450575I$	$-0.18794 - 5.08047I$	$1.48224 + 3.61614I$
$u = 0.780635 + 0.114182I$ $a = 0.321976 - 0.894632I$ $b = -2.15166 + 1.23701I$	$-0.76764 - 2.40112I$	$1.86669 + 2.82981I$
$u = 0.780635 - 0.114182I$ $a = 0.321976 + 0.894632I$ $b = -2.15166 - 1.23701I$	$-0.76764 + 2.40112I$	$1.86669 - 2.82981I$
$u = 0.435439 + 1.137790I$ $a = 1.87502 - 2.52725I$ $b = -0.13112 + 1.68520I$	$-2.30698 + 1.91588I$	0
$u = 0.435439 - 1.137790I$ $a = 1.87502 + 2.52725I$ $b = -0.13112 - 1.68520I$	$-2.30698 - 1.91588I$	0
$u = -0.462237 + 1.138890I$ $a = 0.265455 - 0.514615I$ $b = -0.847571 - 0.105524I$	$-0.25321 - 3.93959I$	0
$u = -0.462237 - 1.138890I$ $a = 0.265455 + 0.514615I$ $b = -0.847571 + 0.105524I$	$-0.25321 + 3.93959I$	0
$u = 0.730068 + 0.216859I$ $a = 0.017747 + 0.955576I$ $b = 1.41229 - 0.75798I$	$7.51403 - 3.34035I$	$7.60444 + 3.00182I$
$u = 0.730068 - 0.216859I$ $a = 0.017747 - 0.955576I$ $b = 1.41229 + 0.75798I$	$7.51403 + 3.34035I$	$7.60444 - 3.00182I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.476725 + 1.153260I$ $a = -0.81591 + 3.58368I$ $b = -1.01360 - 1.84791I$	$-1.97776 + 6.10594I$	0
$u = 0.476725 - 1.153260I$ $a = -0.81591 - 3.58368I$ $b = -1.01360 + 1.84791I$	$-1.97776 - 6.10594I$	0
$u = 0.513961 + 1.149840I$ $a = -0.11955 - 3.03672I$ $b = 1.39279 + 1.07006I$	$4.79936 + 8.02709I$	0
$u = 0.513961 - 1.149840I$ $a = -0.11955 + 3.03672I$ $b = 1.39279 - 1.07006I$	$4.79936 - 8.02709I$	0
$u = 0.397557 + 1.201190I$ $a = 3.48700 - 0.84058I$ $b = -1.91274 + 1.53069I$	$-4.63345 + 1.62389I$	0
$u = 0.397557 - 1.201190I$ $a = 3.48700 + 0.84058I$ $b = -1.91274 - 1.53069I$	$-4.63345 - 1.62389I$	0
$u = -0.386693 + 1.205270I$ $a = -0.590438 + 0.072108I$ $b = 0.514506 + 0.709709I$	$-4.15392 + 1.08717I$	0
$u = -0.386693 - 1.205270I$ $a = -0.590438 - 0.072108I$ $b = 0.514506 - 0.709709I$	$-4.15392 - 1.08717I$	0
$u = -0.454517 + 1.185690I$ $a = -0.153045 + 0.222893I$ $b = 0.409003 + 0.080006I$	$-5.26721 - 4.29704I$	0
$u = -0.454517 - 1.185690I$ $a = -0.153045 - 0.222893I$ $b = 0.409003 - 0.080006I$	$-5.26721 + 4.29704I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.729686$ $a = 0.344825$ $b = 0.329068$	-1.90133	-6.04240
$u = 0.383868 + 1.214570I$ $a = -3.21266 + 0.41913I$ $b = 2.00402 - 1.16861I$	$-7.46477 - 2.97908I$	0
$u = 0.383868 - 1.214570I$ $a = -3.21266 - 0.41913I$ $b = 2.00402 + 1.16861I$	$-7.46477 + 2.97908I$	0
$u = 0.609349 + 0.393185I$ $a = -0.300041 - 1.003460I$ $b = -0.787001 + 0.295364I$	$5.10714 + 4.77042I$	$6.46745 - 4.13897I$
$u = 0.609349 - 0.393185I$ $a = -0.300041 + 1.003460I$ $b = -0.787001 - 0.295364I$	$5.10714 - 4.77042I$	$6.46745 + 4.13897I$
$u = 0.372330 + 1.222140I$ $a = 2.99797 - 0.26076I$ $b = -1.99266 + 0.96659I$	$-2.63241 - 7.32204I$	0
$u = 0.372330 - 1.222140I$ $a = 2.99797 + 0.26076I$ $b = -1.99266 - 0.96659I$	$-2.63241 + 7.32204I$	0
$u = -0.406288 + 1.213400I$ $a = 0.504733 - 0.021247I$ $b = -0.389248 - 0.659986I$	$-8.38898 - 2.62543I$	0
$u = -0.406288 - 1.213400I$ $a = 0.504733 + 0.021247I$ $b = -0.389248 + 0.659986I$	$-8.38898 + 2.62543I$	0
$u = 0.499039 + 1.190420I$ $a = 1.03528 + 4.02706I$ $b = -2.39564 - 1.39498I$	$-3.91311 + 7.11065I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.499039 - 1.190420I$ $a = 1.03528 - 4.02706I$ $b = -2.39564 + 1.39498I$	$-3.91311 - 7.11065I$	0
$u = -0.506285 + 1.191920I$ $a = 0.088919 + 0.484113I$ $b = 0.689757 - 0.413249I$	$-3.30845 - 9.86019I$	0
$u = -0.506285 - 1.191920I$ $a = 0.088919 - 0.484113I$ $b = 0.689757 + 0.413249I$	$-3.30845 + 9.86019I$	0
$u = -0.424698 + 1.226070I$ $a = -0.435838 - 0.072261I$ $b = 0.216144 + 0.657611I$	$-4.80273 - 6.19578I$	0
$u = -0.424698 - 1.226070I$ $a = -0.435838 + 0.072261I$ $b = 0.216144 - 0.657611I$	$-4.80273 + 6.19578I$	0
$u = -0.494122 + 1.200580I$ $a = -0.107151 - 0.412635I$ $b = -0.559713 + 0.411350I$	$-7.76452 - 6.26633I$	0
$u = -0.494122 - 1.200580I$ $a = -0.107151 + 0.412635I$ $b = -0.559713 - 0.411350I$	$-7.76452 + 6.26633I$	0
$u = 0.509568 + 1.196990I$ $a = -1.27750 - 3.59371I$ $b = 2.40882 + 1.03090I$	$-6.57537 + 11.85050I$	0
$u = 0.509568 - 1.196990I$ $a = -1.27750 + 3.59371I$ $b = 2.40882 - 1.03090I$	$-6.57537 - 11.85050I$	0
$u = 0.517965 + 1.198870I$ $a = 1.28587 + 3.32898I$ $b = -2.33265 - 0.85004I$	$-1.6030 + 16.2547I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.517965 - 1.198870I$ $a = 1.28587 - 3.32898I$ $b = -2.33265 + 0.85004I$	$-1.6030 - 16.2547I$	0
$u = -0.482215 + 1.216160I$ $a = 0.183651 + 0.333431I$ $b = 0.382069 - 0.492805I$	$-4.39340 - 2.89778I$	0
$u = -0.482215 - 1.216160I$ $a = 0.183651 - 0.333431I$ $b = 0.382069 + 0.492805I$	$-4.39340 + 2.89778I$	0
$u = 0.643969 + 0.126654I$ $a = 0.021353 - 1.206920I$ $b = -0.89695 + 1.30560I$	$0.91693 - 1.79069I$	$4.82285 + 4.37475I$
$u = 0.643969 - 0.126654I$ $a = 0.021353 + 1.206920I$ $b = -0.89695 - 1.30560I$	$0.91693 + 1.79069I$	$4.82285 - 4.37475I$
$u = 0.473472 + 0.377042I$ $a = 0.402265 + 1.101880I$ $b = 0.527431 - 0.409130I$	$0.11891 + 1.56645I$	$1.87864 - 4.05770I$
$u = 0.473472 - 0.377042I$ $a = 0.402265 - 1.101880I$ $b = 0.527431 + 0.409130I$	$0.11891 - 1.56645I$	$1.87864 + 4.05770I$
$u = -0.507663 + 0.181860I$ $a = -1.035520 - 0.475789I$ $b = -0.716534 + 0.001247I$	$2.48913 - 0.09257I$	$4.02207 - 0.60784I$
$u = -0.507663 - 0.181860I$ $a = -1.035520 + 0.475789I$ $b = -0.716534 - 0.001247I$	$2.48913 + 0.09257I$	$4.02207 + 0.60784I$

II. $\boldsymbol{I^u_2 = \langle b+1,\ -u^3-u^2+a-u-1,\ u^5+u^4+2u^3+u^2+u+1 \rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} u \\ u^3+u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -u^3 \\ u^3+u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} u^3+u^2+u+1 \\ -1 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -u^3 \\ u^3+u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -u^3 \\ u^4+u^3+u^2+1 \end{pmatrix}$$

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

$$a_1 = \begin{pmatrix} u^3 \\ -u^4-u^3-u^2-1 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} u^3 \\ -u^4-u^3-u^2-1 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} u^2+u+1 \\ u^4+u^3+u^2 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 2u^4 - u^3 - 2u$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^5 - 3u^4 + 4u^3 - u^2 - u + 1$
c_2	$u^5 - u^4 + 2u^3 - u^2 + u - 1$
c_3	$u^5 + u^4 - 2u^3 - u^2 + u - 1$
c_4, c_{10}, c_{12}	u^5
c_5, c_7	$u^5 - u^4 - 2u^3 + u^2 + u + 1$
c_6	$u^5 + u^4 + 2u^3 + u^2 + u + 1$
c_8, c_9	$(u + 1)^5$
c_{11}	$(u - 1)^5$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^5 - y^4 + 8y^3 - 3y^2 + 3y - 1$
c_2, c_6	$y^5 + 3y^4 + 4y^3 + y^2 - y - 1$
c_3, c_5, c_7	$y^5 - 5y^4 + 8y^3 - 3y^2 - y - 1$
c_4, c_{10}, c_{12}	y^5
c_8, c_9, c_{11}	$(y-1)^5$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = \ \ 0.339110 + 0.822375I$ $a = \ \ 0.128779 + 1.107660I$ $b = -1.00000$	$1.31583 + 1.53058I$	$-0.02124 - 2.62456I$
$u = \ \ 0.339110 - 0.822375I$ $a = \ \ 0.128779 - 1.107660I$ $b = -1.00000$	$1.31583 - 1.53058I$	$-0.02124 + 2.62456I$
$u = -0.766826$ $a = \ \ 0.370286$ $b = -1.00000$	-0.756147	2.67610
$u = -0.455697 + 1.200150I$ $a = \ \ 1.18608 - 0.87465I$ $b = -1.00000$	$-4.22763 - 4.40083I$	$-0.31681 + 3.97407I$
$u = -0.455697 - 1.200150I$ $a = \ \ 1.18608 + 0.87465I$ $b = -1.00000$	$-4.22763 + 4.40083I$	$-0.31681 - 3.97407I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^5 - 3u^4 + 4u^3 - u^2 - u + 1)(u^{89} + 48u^{88} + \cdots + u - 1)$
c_2	$(u^5 - u^4 + 2u^3 - u^2 + u - 1)(u^{89} - 2u^{88} + \cdots - 3u + 1)$
c_3	$(u^5 + u^4 - 2u^3 - u^2 + u - 1)(u^{89} + 2u^{88} + \cdots + 9u + 1)$
c_4, c_{10}	$u^5(u^{89} - u^{88} + \cdots + 120u^2 + 32)$
c_5	$(u^5 - u^4 - 2u^3 + u^2 + u + 1)(u^{89} + 2u^{88} + \cdots + 9u + 1)$
c_6	$(u^5 + u^4 + 2u^3 + u^2 + u + 1)(u^{89} - 2u^{88} + \cdots - 3u + 1)$
c_7	$(u^5 - u^4 - 2u^3 + u^2 + u + 1)(u^{89} - 12u^{88} + \cdots - 3133u + 277)$
c_8, c_9	$((u + 1)^5)(u^{89} + 6u^{88} + \cdots + 3u + 1)$
c_{11}	$((u - 1)^5)(u^{89} + 6u^{88} + \cdots + 3u + 1)$
c_{12}	$u^5(u^{89} - 33u^{88} + \cdots - 7680u + 1024)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^5 - y^4 + 8y^3 - 3y^2 + 3y - 1)(y^{89} - 12y^{88} + \cdots + 9y - 1)$
c_2, c_6	$(y^5 + 3y^4 + 4y^3 + y^2 - y - 1)(y^{89} + 48y^{88} + \cdots + y - 1)$
c_3, c_5	$(y^5 - 5y^4 + 8y^3 - 3y^2 - y - 1)(y^{89} - 72y^{88} + \cdots + 145y - 1)$
c_4, c_{10}	$y^5(y^{89} + 33y^{88} + \cdots - 7680y - 1024)$
c_7	$(y^5 - 5y^4 + 8y^3 - 3y^2 - y - 1)(y^{89} - 12y^{88} + \cdots - 1273175y - 76729)$
c_8, c_9, c_{11}	$((y - 1)^5)(y^{89} - 76y^{88} + \cdots - 21y - 1)$
c_{12}	$y^5(y^{89} + 37y^{88} + \cdots - 1.40247 \times 10^7 y - 1048576)$