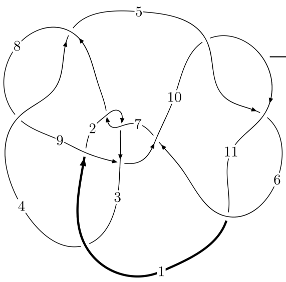
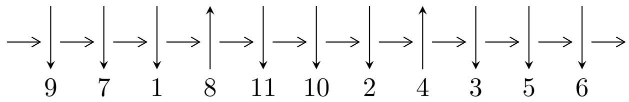
$11a_{344}$ ($K11a_{344}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -3.87710\times 10^{61}u^{75} + 3.95359\times 10^{60}u^{74} + \cdots + 4.66648\times 10^{61}b + 9.74216\times 10^{61},$$
$$-1.83090\times 10^{62}u^{75} + 2.54599\times 10^{61}u^{74} + \cdots + 3.26653\times 10^{62}a + 2.76516\times 10^{62},\ u^{76} + u^{75} + \cdots - 12u -$$
$$I_2^u = \langle -u^7 + 3u^5 - 2u^3 + u^2 + b - u - 1,\ u^{11} - u^{10} - 5u^9 + 4u^8 + 9u^7 - 5u^6 - 5u^5 + u^4 - 2u^3 - u^2 + a + u + 4,$$
$$u^{12} - 6u^{10} + 13u^8 - u^7 - 10u^6 + 4u^5 - 2u^4 - 5u^3 + 4u^2 + 2u + 1\rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 88 representations.

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[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.

$$I_1^u = \langle -3.88\times10^{61}u^{75}+3.95\times10^{60}u^{74}+\cdots+4.67\times10^{61}b+9.74\times10^{61},\ -1.83\times10^{62}u^{75}+2.55\times10^{61}u^{74}+\cdots+3.27\times10^{62}a+2.77\times10^{62},\ u^{76}+u^{75}+\cdots-12u-7\rangle$$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_6 = \begin{pmatrix} -u \\ -u^3+u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} u^3-2u \\ -u^3+u \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} 0.560502u^{75}-0.0779417u^{74}+\cdots-9.59790u-0.846512 \\ 0.830840u^{75}-0.0847233u^{74}+\cdots-1.54729u-2.08769 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.329680u^{75}-0.0658791u^{74}+\cdots-7.74953u+0.366663 \\ 1.74221u^{75}-0.275080u^{74}+\cdots-3.59422u-3.39247 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.535153u^{75}-0.116974u^{74}+\cdots-4.19208u-8.38576 \\ -0.960929u^{75}+0.121521u^{74}+\cdots+6.18648u+6.54630 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -0.315830u^{75}+0.0000729843u^{74}+\cdots-8.58111u+1.08231 \\ 1.95879u^{75}-0.464009u^{74}+\cdots-5.04491u-5.66772 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.128996u^{75}+0.0215062u^{74}+\cdots-10.2764u+4.42926 \\ 1.77769u^{75}-0.255216u^{74}+\cdots-8.27842u-11.8010 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.128996u^{75}+0.0215062u^{74}+\cdots-10.2764u+4.42926 \\ 1.77769u^{75}-0.255216u^{74}+\cdots-8.27842u-11.8010 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.332173u^{75}+1.45404u^{74}+\cdots-12.2591u-8.45946$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{76} + 5u^{75} + \cdots + u - 2$
c_2, c_7	$u^{76} - u^{75} + \cdots - 23u - 101$
c_3	$u^{76} - 11u^{75} + \cdots + 9u + 11$
c_4, c_8	$u^{76} - 2u^{75} + \cdots + 198u - 29$
c_5, c_{10}, c_{11}	$u^{76} - u^{75} + \cdots + 12u - 7$
c_6	$u^{76} + 3u^{75} + \cdots - 3283u + 4312$
c_9	$u^{76} + 7u^{74} + \cdots - 7948u - 1013$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{76} - 3y^{75} + \cdots + 63y + 4$
c_2, c_7	$y^{76} + 53y^{75} + \cdots + 200865y + 10201$
c_3	$y^{76} - 11y^{75} + \cdots - 2567y + 121$
c_4, c_8	$y^{76} + 46y^{75} + \cdots - 29344y + 841$
c_5, c_{10}, c_{11}	$y^{76} - 67y^{75} + \cdots + 500y + 49$
c_6	$y^{76} + 25y^{75} + \cdots - 18824281y + 18593344$
c_9	$y^{76} + 14y^{75} + \cdots + 25053492y + 1026169$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.968679 + 0.306013I$ $a = 0.936744 + 0.290091I$ $b = -0.54901 - 1.35285I$	$3.49997 - 1.86931I$	0
$u = -0.968679 - 0.306013I$ $a = 0.936744 - 0.290091I$ $b = -0.54901 + 1.35285I$	$3.49997 + 1.86931I$	0
$u = -0.402726 + 0.858164I$ $a = -0.228589 - 0.621929I$ $b = -0.323000 + 0.715407I$	$3.74004 + 2.56276I$	$0. - 11.02950I$
$u = -0.402726 - 0.858164I$ $a = -0.228589 + 0.621929I$ $b = -0.323000 - 0.715407I$	$3.74004 - 2.56276I$	$0. + 11.02950I$
$u = 0.150149 + 0.934780I$ $a = 0.047146 + 0.930784I$ $b = -0.424630 - 0.704027I$	$3.32458 - 0.03587I$	$-1.51662 + 0.I$
$u = 0.150149 - 0.934780I$ $a = 0.047146 - 0.930784I$ $b = -0.424630 + 0.704027I$	$3.32458 + 0.03587I$	$-1.51662 + 0.I$
$u = 0.931604 + 0.510293I$ $a = 0.912239 - 0.333719I$ $b = -0.686062 + 1.169450I$	$0.53464 + 7.36666I$	0
$u = 0.931604 - 0.510293I$ $a = 0.912239 + 0.333719I$ $b = -0.686062 - 1.169450I$	$0.53464 - 7.36666I$	0
$u = 0.248826 + 0.843265I$ $a = -0.23673 - 2.05712I$ $b = 0.89742 + 1.31819I$	$2.65342 - 12.13500I$	$-5.18296 + 8.02614I$
$u = 0.248826 - 0.843265I$ $a = -0.23673 + 2.05712I$ $b = 0.89742 - 1.31819I$	$2.65342 + 12.13500I$	$-5.18296 - 8.02614I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.009890 + 0.581338I$ $a = -0.128172 + 0.337314I$ $b = -0.026272 - 0.785988I$	$0.66505 - 5.23954I$	0
$u = 1.009890 - 0.581338I$ $a = -0.128172 - 0.337314I$ $b = -0.026272 + 0.785988I$	$0.66505 + 5.23954I$	0
$u = -1.184460 + 0.087532I$ $a = -1.25675 - 1.30618I$ $b = 0.195439 + 0.281765I$	$-3.89513 - 3.10544I$	0
$u = -1.184460 - 0.087532I$ $a = -1.25675 + 1.30618I$ $b = 0.195439 - 0.281765I$	$-3.89513 + 3.10544I$	0
$u = -0.201569 + 0.767240I$ $a = -0.23031 + 2.38711I$ $b = 0.90138 - 1.50036I$	$5.85346 + 5.89693I$	$-1.84592 - 6.16015I$
$u = -0.201569 - 0.767240I$ $a = -0.23031 - 2.38711I$ $b = 0.90138 + 1.50036I$	$5.85346 - 5.89693I$	$-1.84592 + 6.16015I$
$u = 0.062116 + 0.761993I$ $a = -0.46367 + 1.82956I$ $b = -0.435791 - 0.829410I$	$3.69493 - 3.40892I$	$-2.10008 + 7.62336I$
$u = 0.062116 - 0.761993I$ $a = -0.46367 - 1.82956I$ $b = -0.435791 + 0.829410I$	$3.69493 + 3.40892I$	$-2.10008 - 7.62336I$
$u = 1.203070 + 0.312929I$ $a = -0.066873 + 0.897972I$ $b = 0.327385 - 0.987472I$	$0.209490 - 0.491453I$	0
$u = 1.203070 - 0.312929I$ $a = -0.066873 - 0.897972I$ $b = 0.327385 + 0.987472I$	$0.209490 + 0.491453I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.234810 + 0.206791I$ $a = -0.721753 + 0.756146I$ $b = 0.135004 - 0.637912I$	$-1.62348 - 1.28005I$	0
$u = 1.234810 - 0.206791I$ $a = -0.721753 - 0.756146I$ $b = 0.135004 + 0.637912I$	$-1.62348 + 1.28005I$	0
$u = -0.211230 + 0.692166I$ $a = 0.32479 - 2.42437I$ $b = -0.579010 + 0.798991I$	$-1.61113 + 5.99074I$	$-7.07123 - 7.64863I$
$u = -0.211230 - 0.692166I$ $a = 0.32479 + 2.42437I$ $b = -0.579010 - 0.798991I$	$-1.61113 - 5.99074I$	$-7.07123 + 7.64863I$
$u = -1.264020 + 0.200993I$ $a = -0.743336 - 1.099380I$ $b = -1.81254 + 0.02250I$	$-3.68056 - 0.68832I$	0
$u = -1.264020 - 0.200993I$ $a = -0.743336 + 1.099380I$ $b = -1.81254 - 0.02250I$	$-3.68056 + 0.68832I$	0
$u = -0.637024 + 0.316684I$ $a = -0.0814032 + 0.0833784I$ $b = -0.235620 + 0.937335I$	$3.01317 + 1.73011I$	$-2.31903 - 3.39119I$
$u = -0.637024 - 0.316684I$ $a = -0.0814032 - 0.0833784I$ $b = -0.235620 - 0.937335I$	$3.01317 - 1.73011I$	$-2.31903 + 3.39119I$
$u = -1.284140 + 0.219366I$ $a = 0.183447 - 1.023270I$ $b = 0.352547 + 1.162330I$	$0.12887 + 2.52959I$	0
$u = -1.284140 - 0.219366I$ $a = 0.183447 + 1.023270I$ $b = 0.352547 - 1.162330I$	$0.12887 - 2.52959I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.075482 + 0.672046I$ $a = 0.64227 + 1.93805I$ $b = -0.534886 - 0.748714I$	$1.83137 - 1.88031I$	$-3.15463 + 4.07325I$
$u = 0.075482 - 0.672046I$ $a = 0.64227 - 1.93805I$ $b = -0.534886 + 0.748714I$	$1.83137 + 1.88031I$	$-3.15463 - 4.07325I$
$u = 0.369901 + 0.560002I$ $a = 1.17517 - 0.88223I$ $b = -0.380653 + 0.890018I$	$-1.20192 - 1.77591I$	$-8.18323 + 1.57822I$
$u = 0.369901 - 0.560002I$ $a = 1.17517 + 0.88223I$ $b = -0.380653 - 0.890018I$	$-1.20192 + 1.77591I$	$-8.18323 - 1.57822I$
$u = 1.310420 + 0.247828I$ $a = 1.47529 - 0.24769I$ $b = 0.571098 + 0.537826I$	$-0.27749 - 3.56587I$	0
$u = 1.310420 - 0.247828I$ $a = 1.47529 + 0.24769I$ $b = 0.571098 - 0.537826I$	$-0.27749 + 3.56587I$	0
$u = -1.33405$ $a = -0.863799$ $b = -1.01726$	-5.87122	0
$u = 1.325920 + 0.160373I$ $a = 0.78766 - 1.54148I$ $b = 0.93014 + 1.41946I$	$-5.55889 + 0.47303I$	0
$u = 1.325920 - 0.160373I$ $a = 0.78766 + 1.54148I$ $b = 0.93014 - 1.41946I$	$-5.55889 - 0.47303I$	0
$u = -1.308300 + 0.270202I$ $a = 0.64800 + 1.41204I$ $b = 0.832561 - 0.888141I$	$-2.49885 + 5.30835I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.308300-0.270202I$ $a=\quad 0.64800-1.41204I$ $b=\quad 0.832561+0.888141I$	$-2.49885-5.30835I$	0
$u=-1.305040+0.319754I$ $a=\quad 1.38303+0.97569I$ $b=\quad 0.543065-0.675937I$	$-0.57872+7.31208I$	0
$u=-1.305040-0.319754I$ $a=\quad 1.38303-0.97569I$ $b=\quad 0.543065+0.675937I$	$-0.57872-7.31208I$	0
$u=\quad 1.327950+0.244567I$ $a=\quad 0.244688+0.775435I$ $b=-1.90753+0.89944I$	$-4.47754-6.67234I$	0
$u=\quad 1.327950-0.244567I$ $a=\quad 0.244688-0.775435I$ $b=-1.90753-0.89944I$	$-4.47754+6.67234I$	0
$u=-0.564347+0.281716I$ $a=-0.419798-0.783383I$ $b=\quad 0.808778+0.477749I$	$-3.26194-2.66752I$	$-12.49560+1.19911I$
$u=-0.564347-0.281716I$ $a=-0.419798+0.783383I$ $b=\quad 0.808778-0.477749I$	$-3.26194+2.66752I$	$-12.49560-1.19911I$
$u=\quad 0.368179+0.508001I$ $a=\quad 0.96836-1.48644I$ $b=\quad 0.126296+1.052670I$	$-1.29394-1.64438I$	$-9.75127+4.13442I$
$u=\quad 0.368179-0.508001I$ $a=\quad 0.96836+1.48644I$ $b=\quad 0.126296-1.052670I$	$-1.29394+1.64438I$	$-9.75127-4.13442I$
$u=-0.075467+0.609557I$ $a=-1.85586-0.84943I$ $b=\quad 1.75807+0.52628I$	$-0.03422+3.55485I$	$-4.57668-5.47640I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.075467 - 0.609557I$ $a = -1.85586 + 0.84943I$ $b = 1.75807 - 0.52628I$	$-0.03422 - 3.55485I$	$-4.57668 + 5.47640I$
$u = -0.044203 + 0.612297I$ $a = -1.23990 - 1.62222I$ $b = -0.389998 + 0.831508I$	$4.00054 + 0.42281I$	$-1.53362 + 1.17105I$
$u = -0.044203 - 0.612297I$ $a = -1.23990 + 1.62222I$ $b = -0.389998 - 0.831508I$	$4.00054 - 0.42281I$	$-1.53362 - 1.17105I$
$u = 1.389280 + 0.027409I$ $a = 0.100143 - 0.840012I$ $b = 0.943148 - 0.485048I$	$-3.13133 + 2.04238I$	0
$u = 1.389280 - 0.027409I$ $a = 0.100143 + 0.840012I$ $b = 0.943148 + 0.485048I$	$-3.13133 - 2.04238I$	0
$u = -1.334670 + 0.401679I$ $a = 0.525115 + 0.884565I$ $b = 0.751457 - 0.668315I$	$-1.28728 + 4.79520I$	0
$u = -1.334670 - 0.401679I$ $a = 0.525115 - 0.884565I$ $b = 0.751457 + 0.668315I$	$-1.28728 - 4.79520I$	0
$u = 1.379300 + 0.285950I$ $a = 0.77351 - 1.51750I$ $b = 0.669261 + 1.000640I$	$-6.65323 - 9.56425I$	0
$u = 1.379300 - 0.285950I$ $a = 0.77351 + 1.51750I$ $b = 0.669261 - 1.000640I$	$-6.65323 + 9.56425I$	0
$u = 1.38264 + 0.31570I$ $a = -1.22325 + 1.23732I$ $b = -1.13602 - 1.53413I$	$0.83133 - 9.81598I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.38264 - 0.31570I$ $a = -1.22325 - 1.23732I$ $b = -1.13602 + 1.53413I$	$0.83133 + 9.81598I$	0
$u = -1.40631 + 0.21816I$ $a = -1.026610 - 0.485658I$ $b = -0.272085 + 1.269180I$	$-6.84634 + 4.36487I$	0
$u = -1.40631 - 0.21816I$ $a = -1.026610 + 0.485658I$ $b = -0.272085 - 1.269180I$	$-6.84634 - 4.36487I$	0
$u = 1.42980 + 0.07326I$ $a = -0.490884 - 0.045086I$ $b = -1.101020 + 0.554963I$	$-9.55152 + 1.46003I$	0
$u = 1.42980 - 0.07326I$ $a = -0.490884 + 0.045086I$ $b = -1.101020 - 0.554963I$	$-9.55152 - 1.46003I$	0
$u = -1.43258 + 0.21432I$ $a = -0.770404 + 0.141503I$ $b = 0.531412 + 1.110610I$	$-6.96863 + 4.63471I$	0
$u = -1.43258 - 0.21432I$ $a = -0.770404 - 0.141503I$ $b = 0.531412 - 1.110610I$	$-6.96863 - 4.63471I$	0
$u = -1.41403 + 0.34833I$ $a = -1.03057 - 1.23596I$ $b = -1.07132 + 1.35240I$	$-2.6277 + 16.4336I$	0
$u = -1.41403 - 0.34833I$ $a = -1.03057 + 1.23596I$ $b = -1.07132 - 1.35240I$	$-2.6277 - 16.4336I$	0
$u = 1.45271 + 0.36773I$ $a = 0.481096 - 0.525580I$ $b = 0.743722 + 0.594956I$	$-2.09696 - 7.08063I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.45271 - 0.36773I$ $a = 0.481096 + 0.525580I$ $b = 0.743722 - 0.594956I$	$-2.09696 + 7.08063I$	0
$u = -1.53494 + 0.03855I$ $a = 0.132344 - 0.251214I$ $b = 0.750588 - 0.550715I$	$-8.13102 + 6.65132I$	0
$u = -1.53494 - 0.03855I$ $a = 0.132344 + 0.251214I$ $b = 0.750588 + 0.550715I$	$-8.13102 - 6.65132I$	0
$u = 0.375740$ $a = 0.100271$ $b = 0.540684$	-0.725667	-13.9610
$u = -0.099162 + 0.335506I$ $a = 2.71273 - 3.59350I$ $b = -0.665037 + 0.775565I$	$-1.09766 - 2.44518I$	$-6.25239 - 1.93768I$
$u = -0.099162 - 0.335506I$ $a = 2.71273 + 3.59350I$ $b = -0.665037 - 0.775565I$	$-1.09766 + 2.44518I$	$-6.25239 + 1.93768I$

II. $\boldsymbol{I_2^u =}$
$\boldsymbol{\langle -u^7+3u^5-2u^3+u^2+b-u-1,\ u^{11}-u^{10}+\cdots+a+4,\ u^{12}-6u^{10}+\cdots+2u+1\rangle}$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -u \\ -u^3+u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u^3-2u \\ -u^3+u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u^2+1 \\ -u^4+2u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u^{11}+u^{10}+5u^9-4u^8-9u^7+5u^6+5u^5-u^4+2u^3+u^2-u-4 \\ u^7-3u^5+2u^3-u^2+u+1 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -u^{11}+5u^9+u^8-9u^7-3u^6+6u^5+2u^4-u^3+2u^2+u-3 \\ u^7-3u^5-u^4+2u^3+u^2+u+1 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u^{11}+u^{10}+6u^9-5u^8-13u^7+10u^6+9u^5-9u^4+5u^3+3u^2-7u \\ u^{11}+u^{10}-5u^9-4u^8+8u^7+3u^6-4u^5+5u^4-5u^2-1 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -u^{11}+5u^9+u^8-9u^7-3u^6+6u^5+2u^4-u^3+3u^2+u-4 \\ u^{10}-4u^8+u^7+5u^6-4u^5-u^4+4u^3-2u^2+u+1 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} u^{10}-2u^9-5u^8+9u^7+8u^6-14u^5+6u^3-9u^2+3u+4 \\ u^9-4u^7+5u^5-u^4+2u^2-2u-1 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} u^{10}-2u^9-5u^8+9u^7+8u^6-14u^5+6u^3-9u^2+3u+4 \\ u^9-4u^7+5u^5-u^4+2u^2-2u-1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes
$= -u^{11}+12u^9-u^8-36u^7+6u^6+37u^5-16u^4+2u^3+16u^2-15u-12$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{12}+2u^9+2u^8-u^7-u^5+u^4+u^3-u^2-u+1$
c_2	$u^{12}+6u^{10}+u^9+14u^8+4u^7+17u^6+6u^5+12u^4+3u^3+5u^2+u+1$
c_3	$u^{12}-2u^{10}-u^9+2u^8+2u^7+3u^6+4u^5+2u^4+u^3+3u^2+3u+1$
c_4	$u^{12}-u^{11}+5u^{10}-3u^9+12u^8-6u^7+17u^6-4u^5+14u^4-u^3+6u^2+1$
c_5	$u^{12}-6u^{10}+13u^8+u^7-10u^6-4u^5-2u^4+5u^3+4u^2-2u+1$
c_6	$u^{12}+2u^{10}-3u^9+4u^8+4u^7+12u^6+7u^5+3u^4+4u^3+4u^2-2u+1$
c_7	$u^{12}+6u^{10}-u^9+14u^8-4u^7+17u^6-6u^5+12u^4-3u^3+5u^2-u+1$
c_8	$u^{12}+u^{11}+5u^{10}+3u^9+12u^8+6u^7+17u^6+4u^5+14u^4+u^3+6u^2+1$
c_9	$u^{12}+u^{11}-u^{10}-u^9+u^8+u^7+u^5+2u^4-2u^3+1$
c_{10}, c_{11}	$u^{12}-6u^{10}+13u^8-u^7-10u^6+4u^5-2u^4-5u^3+4u^2+2u+1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{12}+4y^{10}-4y^9+10y^8+y^7+y^5+5y^4-5y^3+5y^2-3y+1$
c_2, c_7	$y^{12}+12y^{11}+\cdots+9y+1$
c_3	$y^{12}-4y^{11}+8y^{10}-3y^9+14y^7-7y^6+6y^5+6y^4-7y^3+7y^2-3y+1$
c_4, c_8	$y^{12}+9y^{11}+\cdots+12y+1$
c_5, c_{10}, c_{11}	$y^{12}-12y^{11}+\cdots+4y+1$
c_6	$y^{12}+4y^{11}+\cdots+4y+1$
c_9	$y^{12}-3y^{11}+5y^{10}-5y^9+5y^8+y^7+y^5+10y^4-4y^3+4y^2+1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.215104 + 0.798845I$ $a = -0.413477 + 0.669068I$ $b = -0.377143 - 0.565754I$	$3.50536 - 1.91915I$	$-4.46198 + 0.73730I$
$u = 0.215104 - 0.798845I$ $a = -0.413477 - 0.669068I$ $b = -0.377143 + 0.565754I$	$3.50536 + 1.91915I$	$-4.46198 - 0.73730I$
$u = 1.181970 + 0.217891I$ $a = 0.539675 + 0.842839I$ $b = 0.241684 - 0.971815I$	$0.83736 - 1.52744I$	$-4.49507 + 0.61060I$
$u = 1.181970 - 0.217891I$ $a = 0.539675 - 0.842839I$ $b = 0.241684 + 0.971815I$	$0.83736 + 1.52744I$	$-4.49507 - 0.61060I$
$u = -1.286840 + 0.093791I$ $a = -0.86850 - 1.39935I$ $b = -1.299930 + 0.350855I$	$-4.83854 - 1.75409I$	$-13.7193 + 4.0775I$
$u = -1.286840 - 0.093791I$ $a = -0.86850 + 1.39935I$ $b = -1.299930 - 0.350855I$	$-4.83854 + 1.75409I$	$-13.7193 - 4.0775I$
$u = -1.334400 + 0.365970I$ $a = 0.637376 + 0.770937I$ $b = 0.740658 - 0.383732I$	$-1.29267 + 6.23322I$	$-8.20976 - 5.43660I$
$u = -1.334400 - 0.365970I$ $a = 0.637376 - 0.770937I$ $b = 0.740658 + 0.383732I$	$-1.29267 - 6.23322I$	$-8.20976 + 5.43660I$
$u = 1.43060 + 0.17503I$ $a = 0.821437 + 0.356941I$ $b = -0.793895 + 0.868621I$	$-6.80152 - 5.19940I$	$-9.91514 + 9.30773I$
$u = 1.43060 - 0.17503I$ $a = 0.821437 - 0.356941I$ $b = -0.793895 - 0.868621I$	$-6.80152 + 5.19940I$	$-9.91514 - 9.30773I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.206431+0.331897I$ $a=-3.71651-0.52155I$ $b=0.988629+0.507298I$	$-1.27959+3.15177I$	$-9.69878-7.80238I$
$u=-0.206431-0.331897I$ $a=-3.71651+0.52155I$ $b=0.988629-0.507298I$	$-1.27959-3.15177I$	$-9.69878+7.80238I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{12}+2u^9+2u^8-u^7-u^5+u^4+u^3-u^2-u+1)$ $\cdot\,(u^{76}+5u^{75}+\cdots+u-2)$
c_2	$(u^{12}+6u^{10}+u^9+14u^8+4u^7+17u^6+6u^5+12u^4+3u^3+5u^2+u+1)$ $\cdot\,(u^{76}-u^{75}+\cdots-23u-101)$
c_3	$(u^{12}-2u^{10}-u^9+2u^8+2u^7+3u^6+4u^5+2u^4+u^3+3u^2+3u+1)$ $\cdot\,(u^{76}-11u^{75}+\cdots+9u+11)$
c_4	$(u^{12}-u^{11}+5u^{10}-3u^9+12u^8-6u^7+17u^6-4u^5+14u^4-u^3+6u^2+1)$ $\cdot\,(u^{76}-2u^{75}+\cdots+198u-29)$
c_5	$(u^{12}-6u^{10}+13u^8+u^7-10u^6-4u^5-2u^4+5u^3+4u^2-2u+1)$ $\cdot\,(u^{76}-u^{75}+\cdots+12u-7)$
c_6	$(u^{12}+2u^{10}-3u^9+4u^8+4u^7+12u^6+7u^5+3u^4+4u^3+4u^2-2u+1)$ $\cdot\,(u^{76}+3u^{75}+\cdots-3283u+4312)$
c_7	$(u^{12}+6u^{10}-u^9+14u^8-4u^7+17u^6-6u^5+12u^4-3u^3+5u^2-u+1)$ $\cdot\,(u^{76}-u^{75}+\cdots-23u-101)$
c_8	$(u^{12}+u^{11}+5u^{10}+3u^9+12u^8+6u^7+17u^6+4u^5+14u^4+u^3+6u^2+1)$ $\cdot\,(u^{76}-2u^{75}+\cdots+198u-29)$
c_9	$(u^{12}+u^{11}-u^{10}-u^9+u^8+u^7+u^5+2u^4-2u^3+1)$ $\cdot\,(u^{76}+7u^{74}+\cdots-7948u-1013)$
c_{10}, c_{11}	$(u^{12}-6u^{10}+13u^8-u^7-10u^6+4u^5-2u^4-5u^3+4u^2+2u+1)$ $\cdot\,(u^{76}-u^{75}+\cdots+12u-7)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{12}+4y^{10}-4y^9+10y^8+y^7+y^5+5y^4-5y^3+5y^2-3y+1)$ $\cdot(y^{76}-3y^{75}+\cdots+63y+4)$
c_2, c_7	$(y^{12}+12y^{11}+\cdots+9y+1)(y^{76}+53y^{75}+\cdots+200865y+10201)$
c_3	$(y^{12}-4y^{11}+8y^{10}-3y^9+14y^7-7y^6+6y^5+6y^4-7y^3+7y^2-3y+1)$ $\cdot(y^{76}-11y^{75}+\cdots-2567y+121)$
c_4, c_8	$(y^{12}+9y^{11}+\cdots+12y+1)(y^{76}+46y^{75}+\cdots-29344y+841)$
c_5, c_{10}, c_{11}	$(y^{12}-12y^{11}+\cdots+4y+1)(y^{76}-67y^{75}+\cdots+500y+49)$
c_6	$(y^{12}+4y^{11}+\cdots+4y+1)$ $\cdot(y^{76}+25y^{75}+\cdots-18824281y+18593344)$
c_9	$(y^{12}-3y^{11}+5y^{10}-5y^9+5y^8+y^7+y^5+10y^4-4y^3+4y^2+1)$ $\cdot(y^{76}+14y^{75}+\cdots+25053492y+1026169)$