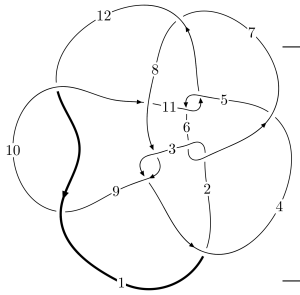
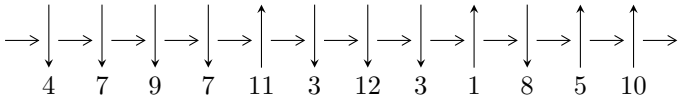
$12n_{0761}$ $(K12n_{0761})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle 3.97870 \times 10^{127} u^{63} + 7.30559 \times 10^{127} u^{62} + \cdots + 2.80101 \times 10^{129} b - 2.17236 \times 10^{129},$$
$$9.34021 \times 10^{128} u^{63} + 2.00908 \times 10^{129} u^{62} + \cdots + 2.80101 \times 10^{129} a + 1.33402 \times 10^{131},\ u^{64} + 2u^{63} + \cdots + 52u$$
$$I_2^u = \langle 5.31075 \times 10^{16} u^{33} - 2.70900 \times 10^{17} u^{32} + \cdots + 1.01071 \times 10^{18} b + 7.36359 \times 10^{17},$$
$$- 1.67036 \times 10^{19} u^{33} + 2.51183 \times 10^{19} u^{32} + \cdots + 5.55891 \times 10^{19} a + 7.28093 \times 10^{19},$$
$$u^{34} - 3u^{33} + \cdots - 27u + 5 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 98 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. $\boldsymbol{I_1^u = \langle 3.98 \times 10^{127} u^{63} + 7.31 \times 10^{127} u^{62} + \cdots + 2.80 \times 10^{129} b - 2.17 \times 10^{129},\ 9.34 \times 10^{128} u^{63} + 2.01 \times 10^{129} u^{62} + \cdots + 2.80 \times 10^{129} a + 1.33 \times 10^{131},\ u^{64} + 2u^{63} + \cdots + 52u - 1 \rangle}$

(i) Arc colorings

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

$$a_{12} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} -0.333459u^{63} - 0.717269u^{62} + \cdots - 501.805u - 47.6263 \\ -0.0142045u^{63} - 0.0260820u^{62} + \cdots - 6.72756u + 0.775564 \end{pmatrix}$$

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

$$a_4 = \begin{pmatrix} -0.345609u^{63} - 0.726001u^{62} + \cdots - 502.999u - 47.5965 \\ -0.0219766u^{63} - 0.0285431u^{62} + \cdots - 4.71159u + 0.730182 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1.02497u^{63} + 2.00739u^{62} + \cdots + 780.201u + 32.8037 \\ -0.0511564u^{63} - 0.107939u^{62} + \cdots - 26.5733u - 0.0850152 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0.973811u^{63} + 1.89945u^{62} + \cdots + 753.627u + 32.7187 \\ -0.0511564u^{63} - 0.107939u^{62} + \cdots - 26.5733u - 0.0850152 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -1.11384u^{63} - 2.14207u^{62} + \cdots - 740.710u - 40.0935 \\ 0.0736073u^{63} + 0.141737u^{62} + \cdots + 25.8132u + 0.162424 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.163667u^{63} - 0.369101u^{62} + \cdots - 315.105u - 29.4435 \\ -0.0202597u^{63} - 0.0325595u^{62} + \cdots - 4.23987u + 0.489100 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1.29798u^{63} + 2.57666u^{62} + \cdots + 1114.78u + 53.0891 \\ -0.0501939u^{63} - 0.101574u^{62} + \cdots - 31.4978u - 0.323632 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -1.29596u^{63} - 2.48504u^{62} + \cdots - 761.398u - 18.2978 \\ 0.0772814u^{63} + 0.139583u^{62} + \cdots + 40.7050u - 0.311959 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.422995u^{63} - 0.770299u^{62} + \cdots - 106.004u - 6.77653$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{64} - 6u^{63} + \cdots - 11638u + 1297$
c_2, c_6	$u^{64} + 3u^{63} + \cdots + 274122u + 178861$
c_3, c_8	$u^{64} - u^{63} + \cdots - 514u + 43$
c_4	$u^{64} - 7u^{63} + \cdots + 35883u - 2633$
c_5, c_{11}	$u^{64} + u^{63} + \cdots - 146u - 61$
c_7	$u^{64} + 2u^{63} + \cdots - 1926u - 359$
c_9, c_{12}	$u^{64} + 2u^{63} + \cdots + 52u - 1$
c_{10}	$u^{64} - 8u^{63} + \cdots + 360305u - 493889$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{64} - 102y^{63} + \cdots - 115080144y + 1682209$
c_2, c_6	$y^{64} - 97y^{63} + \cdots - 66879492684y + 31991257321$
c_3, c_8	$y^{64} - 65y^{63} + \cdots - 189118y + 1849$
c_4	$y^{64} - 103y^{63} + \cdots - 1148483033y + 6932689$
c_5, c_{11}	$y^{64} + 61y^{63} + \cdots - 160274y + 3721$
c_7	$y^{64} - 20y^{63} + \cdots + 12391674y + 128881$
c_9, c_{12}	$y^{64} + 56y^{63} + \cdots - 4566y + 1$
c_{10}	$y^{64} - 36y^{63} + \cdots - 918166302603y + 243926344321$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.007940+0.142695I$ $a=\ \ 1.72681+0.33227I$ $b=-2.14827-0.38605I$	$-5.44537+1.27224I$	0
$u=-1.007940-0.142695I$ $a=\ \ 1.72681-0.33227I$ $b=-2.14827+0.38605I$	$-5.44537-1.27224I$	0
$u=\ \ 0.249944+0.990791I$ $a=\ \ 0.640684+0.292773I$ $b=\ \ 1.131970-0.306003I$	$0.77396+1.88121I$	0
$u=\ \ 0.249944-0.990791I$ $a=\ \ 0.640684-0.292773I$ $b=\ \ 1.131970+0.306003I$	$0.77396-1.88121I$	0
$u=\ \ 0.550861+0.895713I$ $a=\ \ 0.776838+0.264285I$ $b=\ \ 0.537876-1.046190I$	$0.74786+1.74560I$	0
$u=\ \ 0.550861-0.895713I$ $a=\ \ 0.776838-0.264285I$ $b=\ \ 0.537876+1.046190I$	$0.74786-1.74560I$	0
$u=\ \ 0.249663+0.860286I$ $a=-0.007952-0.255517I$ $b=-1.346110+0.066798I$	$1.46998-0.09365I$	$-6.05569-0.75235I$
$u=\ \ 0.249663-0.860286I$ $a=-0.007952+0.255517I$ $b=-1.346110-0.066798I$	$1.46998+0.09365I$	$-6.05569+0.75235I$
$u=\ \ 0.816030+0.352936I$ $a=\ \ 1.065950-0.372916I$ $b=-1.21954-0.72193I$	$1.34471+1.67458I$	$4.89337-2.28509I$
$u=\ \ 0.816030-0.352936I$ $a=\ \ 1.065950+0.372916I$ $b=-1.21954+0.72193I$	$1.34471-1.67458I$	$4.89337+2.28509I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.457483 + 1.043140I$ $a = 0.204342 + 0.373914I$ $b = 0.698972 - 0.215128I$	$-0.48463 + 2.79065I$	0
$u = 0.457483 - 1.043140I$ $a = 0.204342 - 0.373914I$ $b = 0.698972 + 0.215128I$	$-0.48463 - 2.79065I$	0
$u = -0.492479 + 1.105960I$ $a = 0.363473 - 0.562434I$ $b = 0.483288 + 0.305590I$	$-3.32128 - 6.55734I$	0
$u = -0.492479 - 1.105960I$ $a = 0.363473 + 0.562434I$ $b = 0.483288 - 0.305590I$	$-3.32128 + 6.55734I$	0
$u = 0.258616 + 1.235310I$ $a = 1.77466 - 1.22348I$ $b = -0.172078 - 0.546913I$	$-16.2576 + 2.1070I$	0
$u = 0.258616 - 1.235310I$ $a = 1.77466 + 1.22348I$ $b = -0.172078 + 0.546913I$	$-16.2576 - 2.1070I$	0
$u = 0.696765 + 0.232307I$ $a = -1.16792 + 1.33211I$ $b = 0.171332 - 0.345569I$	$-13.19110 + 1.27884I$	$-7.41673 - 0.45833I$
$u = 0.696765 - 0.232307I$ $a = -1.16792 - 1.33211I$ $b = 0.171332 + 0.345569I$	$-13.19110 - 1.27884I$	$-7.41673 + 0.45833I$
$u = -0.682790 + 0.263870I$ $a = 0.438693 - 0.369280I$ $b = -0.342223 + 0.086473I$	$-0.95985 + 2.04685I$	$-1.75065 - 3.12369I$
$u = -0.682790 - 0.263870I$ $a = 0.438693 + 0.369280I$ $b = -0.342223 - 0.086473I$	$-0.95985 - 2.04685I$	$-1.75065 + 3.12369I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.174623+1.260770I$ $a=-2.35850+0.45076I$ $b=-1.53794-0.61406I$	$-11.49590+1.71321I$	0
$u=-0.174623-1.260770I$ $a=-2.35850-0.45076I$ $b=-1.53794+0.61406I$	$-11.49590-1.71321I$	0
$u=-0.306605+1.249510I$ $a=\ \ 0.200371+0.206893I$ $b=\ \ 0.627190+0.049373I$	$-5.37789-1.23730I$	0
$u=-0.306605-1.249510I$ $a=\ \ 0.200371-0.206893I$ $b=\ \ 0.627190-0.049373I$	$-5.37789+1.23730I$	0
$u=-1.285920+0.192101I$ $a=-1.42596-0.15956I$ $b=\ \ 2.57629-0.75755I$	$-15.2764-8.8264I$	0
$u=-1.285920-0.192101I$ $a=-1.42596+0.15956I$ $b=\ \ 2.57629+0.75755I$	$-15.2764+8.8264I$	0
$u=-0.656758$ $a=-1.69115$ $b=\ \ 0.229294$	-7.54151	-19.1290
$u=\ \ 0.030952+1.346990I$ $a=-0.59570-1.40447I$ $b=-0.841490-0.064539I$	$-5.51440+0.30301I$	0
$u=\ \ 0.030952-1.346990I$ $a=-0.59570+1.40447I$ $b=-0.841490+0.064539I$	$-5.51440-0.30301I$	0
$u=\ \ 0.016235+1.351670I$ $a=-0.74947+1.55560I$ $b=-0.902586+0.406360I$	$-8.88905+3.84557I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.016235 - 1.351670I$ $a = -0.74947 - 1.55560I$ $b = -0.902586 - 0.406360I$	$-8.88905 - 3.84557I$	0
$u = 0.895451 + 1.019690I$ $a = 0.417165 + 0.878340I$ $b = 1.62581 - 2.01395I$	$0.31944 + 4.24899I$	0
$u = 0.895451 - 1.019690I$ $a = 0.417165 - 0.878340I$ $b = 1.62581 + 2.01395I$	$0.31944 - 4.24899I$	0
$u = -0.387601 + 1.301540I$ $a = -0.48828 - 2.11903I$ $b = 1.79526 - 0.66734I$	$-9.22324 - 6.23066I$	0
$u = -0.387601 - 1.301540I$ $a = -0.48828 + 2.11903I$ $b = 1.79526 + 0.66734I$	$-9.22324 + 6.23066I$	0
$u = -0.254005 + 1.347870I$ $a = 0.707175 + 1.216390I$ $b = -0.250688 + 0.217652I$	$-11.89940 - 3.29862I$	0
$u = -0.254005 - 1.347870I$ $a = 0.707175 - 1.216390I$ $b = -0.250688 - 0.217652I$	$-11.89940 + 3.29862I$	0
$u = -0.089807 + 1.382760I$ $a = -0.33602 + 1.52963I$ $b = -0.830903 + 0.034127I$	$-9.26019 - 5.11499I$	0
$u = -0.089807 - 1.382760I$ $a = -0.33602 - 1.52963I$ $b = -0.830903 - 0.034127I$	$-9.26019 + 5.11499I$	0
$u = 0.142080 + 1.389040I$ $a = -0.957401 + 0.071022I$ $b = -1.53212 + 0.09517I$	$-7.50523 + 2.04977I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.142080 - 1.389040I$ $a = -0.957401 - 0.071022I$ $b = -1.53212 - 0.09517I$	$-7.50523 - 2.04977I$	0
$u = 1.46014$ $a = -1.47207$ $b = 3.47659$	-9.73353	0
$u = -0.17379 + 1.44995I$ $a = -0.206285 - 0.120922I$ $b = -1.49106 + 0.16967I$	$-14.0649 - 6.1119I$	0
$u = -0.17379 - 1.44995I$ $a = -0.206285 + 0.120922I$ $b = -1.49106 - 0.16967I$	$-14.0649 + 6.1119I$	0
$u = 0.31970 + 1.42902I$ $a = 0.13246 + 1.67735I$ $b = 1.60069 + 0.52413I$	$-4.28551 + 5.79817I$	0
$u = 0.31970 - 1.42902I$ $a = 0.13246 - 1.67735I$ $b = 1.60069 - 0.52413I$	$-4.28551 - 5.79817I$	0
$u = 0.27320 + 1.45649I$ $a = 0.197724 - 1.052900I$ $b = -0.204744 + 0.178990I$	$-18.7460 + 4.8784I$	0
$u = 0.27320 - 1.45649I$ $a = 0.197724 + 1.052900I$ $b = -0.204744 - 0.178990I$	$-18.7460 - 4.8784I$	0
$u = -0.426812 + 0.260862I$ $a = -2.07816 + 1.63560I$ $b = 1.48606 - 0.39290I$	$-8.33818 - 3.82630I$	$-4.41107 + 3.39985I$
$u = -0.426812 - 0.260862I$ $a = -2.07816 - 1.63560I$ $b = 1.48606 + 0.39290I$	$-8.33818 + 3.82630I$	$-4.41107 - 3.39985I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.097833+0.474622I$ $a=-0.827808+0.678647I$ $b=\ \ 0.294933+0.730719I$	$-1.319160-0.440236I$	$-9.35435+2.21690I$
$u=-0.097833-0.474622I$ $a=-0.827808-0.678647I$ $b=\ \ 0.294933-0.730719I$	$-1.319160+0.440236I$	$-9.35435-2.21690I$
$u=-0.37887+1.50747I$ $a=\ \ 0.154569-1.209630I$ $b=\ \ 1.96550-0.01342I$	$-10.95380-3.84815I$	0
$u=-0.37887-1.50747I$ $a=\ \ 0.154569+1.209630I$ $b=\ \ 1.96550+0.01342I$	$-10.95380+3.84815I$	0
$u=\ \ 0.434862$ $a=-1.15792$ $b=\ \ 1.73830$	-2.71311	4.97120
$u=-0.53243+1.51468I$ $a=\ \ 0.17579+1.53528I$ $b=-2.26321+0.64860I$	$18.7748-15.2291I$	0
$u=-0.53243-1.51468I$ $a=\ \ 0.17579-1.53528I$ $b=-2.26321-0.64860I$	$18.7748+15.2291I$	0
$u=-0.78553+1.46938I$ $a=-0.008826+1.081540I$ $b=-2.98528-0.34680I$	$-19.0465+1.4457I$	0
$u=-0.78553-1.46938I$ $a=-0.008826-1.081540I$ $b=-2.98528+0.34680I$	$-19.0465-1.4457I$	0
$u=\ \ 0.63716+1.58515I$ $a=\ \ 0.076750-1.383190I$ $b=-2.87479-0.66509I$	$-14.8125+7.4988I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.63716 - 1.58515I$ $a = 0.076750 + 1.383190I$ $b = -2.87479 + 0.66509I$	$-14.8125 - 7.4988I$	0
$u = -0.143681 + 0.044279I$ $a = -7.87520 - 3.81313I$ $b = 0.894949 + 0.189533I$	$-4.43324 - 4.09803I$	$-12.1941 + 7.4744I$
$u = -0.143681 - 0.044279I$ $a = -7.87520 + 3.81313I$ $b = 0.894949 - 0.189533I$	$-4.43324 + 4.09803I$	$-12.1941 - 7.4744I$
$u = 0.0149078$ $a = -55.6188$ $b = 0.661638$	-1.19438	-8.68390

II. $I_2^u = \langle 5.31 \times 10^{16} u^{33} - 2.71 \times 10^{17} u^{32} + \cdots + 1.01 \times 10^{18} b + 7.36 \times 10^{17},\ -1.67 \times 10^{19} u^{33} + 2.51 \times 10^{19} u^{32} + \cdots + 5.56 \times 10^{19} a + 7.28 \times 10^{19},\ u^{34} - 3u^{33} + \cdots - 27u + 5 \rangle$

(i) Arc colorings

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

$$a_{12} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} 0.300484u^{33} - 0.451857u^{32} + \cdots - 11.2848u - 1.30978 \\ -0.0525447u^{33} + 0.268029u^{32} + \cdots + 12.0496u - 0.728556 \end{pmatrix}$$

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

$$a_4 = \begin{pmatrix} 0.597381u^{33} - 0.951533u^{32} + \cdots - 11.1959u - 1.06778 \\ 0.0496895u^{33} + 0.346387u^{32} + \cdots + 2.88773u + 0.984526 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.103858u^{33} - 0.753674u^{32} + \cdots + 12.6796u - 0.00462628 \\ 0.399254u^{33} - 1.22377u^{32} + \cdots + 13.6644u - 2.75474 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0.503112u^{33} - 1.97744u^{32} + \cdots + 26.3439u - 2.75937 \\ 0.399254u^{33} - 1.22377u^{32} + \cdots + 13.6644u - 2.75474 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.880333u^{33} - 1.84770u^{32} + \cdots - 20.5109u + 2.14763 \\ 0.892975u^{33} - 2.88608u^{32} + \cdots + 13.6187u - 0.688373 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.331457u^{33} - 0.303393u^{32} + \cdots - 8.35774u - 2.18935 \\ -1.05254u^{33} + 3.26803u^{32} + \cdots + 7.04961u + 0.271444 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.0728670u^{33} - 1.48623u^{32} + \cdots + 50.8761u - 12.0674 \\ -0.345156u^{33} + 1.22456u^{32} + \cdots - 12.7354u + 2.73846 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -1.00426u^{33} + 3.93758u^{32} + \cdots - 30.1763u + 2.98429 \\ 0.169389u^{33} - 0.104604u^{32} + \cdots - 11.8324u + 2.91177 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -\frac{2163458071743622590}{11117810484131810393}u^{33} + \frac{36568167913572040564}{11117810484131810393}u^{32} + \cdots - \frac{1342205609064896559183}{11117810484131810393}u + \frac{46639162711066437378}{11117810484131810393}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{34} - 15u^{33} + \cdots + 467u - 53$
c_2	$u^{34} + 2u^{33} + \cdots + 3u - 1$
c_3	$u^{34} - 11u^{32} + \cdots - 7u + 3$
c_4	$u^{34} - 12u^{33} + \cdots - 1360u + 175$
c_5	$u^{34} + 12u^{32} + \cdots + 5u - 3$
c_6	$u^{34} - 2u^{33} + \cdots - 3u - 1$
c_7	$u^{34} + u^{33} + \cdots - u - 1$
c_8	$u^{34} - 11u^{32} + \cdots + 7u + 3$
c_9	$u^{34} + 3u^{33} + \cdots + 27u + 5$
c_{10}	$u^{34} + 3u^{33} + \cdots + 678u + 173$
c_{11}	$u^{34} + 12u^{32} + \cdots - 5u - 3$
c_{12}	$u^{34} - 3u^{33} + \cdots - 27u + 5$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{34} - 43y^{33} + \cdots - 6831y + 2809$
c_2, c_6	$y^{34} - 18y^{33} + \cdots + 13y + 1$
c_3, c_8	$y^{34} - 22y^{33} + \cdots - 217y + 9$
c_4	$y^{34} - 36y^{33} + \cdots - 651200y + 30625$
c_5, c_{11}	$y^{34} + 24y^{33} + \cdots + 143y + 9$
c_7	$y^{34} + 3y^{33} + \cdots - 25y + 1$
c_9, c_{12}	$y^{34} + 27y^{33} + \cdots - 309y + 25$
c_{10}	$y^{34} - y^{33} + \cdots + 164154y + 29929$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.766380+0.506457I$ $a=\ \ 0.117856-0.160082I$ $b=\ \ 0.623438+0.869619I$	$-2.27085+1.95626I$	$-9.24623-1.70967I$
$u=-0.766380-0.506457I$ $a=\ \ 0.117856+0.160082I$ $b=\ \ 0.623438-0.869619I$	$-2.27085-1.95626I$	$-9.24623+1.70967I$
$u=-0.308433+1.080170I$ $a=\ \ 1.322530+0.396036I$ $b=-0.434514-0.496250I$	$-15.6918-1.2800I$	$-10.72860-1.32316I$
$u=-0.308433-1.080170I$ $a=\ \ 1.322530-0.396036I$ $b=-0.434514+0.496250I$	$-15.6918+1.2800I$	$-10.72860+1.32316I$
$u=\ \ 0.875882$ $a=-1.41620$ $b=\ \ 0.837071$	-7.06851	-1.41880
$u=\ \ 0.781874+0.374349I$ $a=\ \ 0.828422-0.587983I$ $b=-0.959535-0.479817I$	$0.74361+1.92657I$	$-7.44260-5.71922I$
$u=\ \ 0.781874-0.374349I$ $a=\ \ 0.828422+0.587983I$ $b=-0.959535+0.479817I$	$0.74361-1.92657I$	$-7.44260+5.71922I$
$u=\ \ 0.517506+1.024060I$ $a=-0.205606+0.227297I$ $b=\ \ 0.603730-0.117604I$	$-1.01482+2.80754I$	$-12.27145-3.23297I$
$u=\ \ 0.517506-1.024060I$ $a=-0.205606-0.227297I$ $b=\ \ 0.603730+0.117604I$	$-1.01482-2.80754I$	$-12.27145+3.23297I$
$u=-0.530685+1.059380I$ $a=-0.133097+0.342424I$ $b=-0.180839+0.401786I$	$-3.95149-6.85543I$	$-13.0643+9.1794I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.530685-1.059380I$ $a=-0.133097-0.342424I$ $b=-0.180839-0.401786I$	$-3.95149+6.85543I$	$-13.0643-9.1794I$
$u=-0.106988+0.793293I$ $a=-1.92839-1.12133I$ $b=\ \ 1.46699-0.64171I$	$-9.43550-3.53143I$	$-12.56667+1.79470I$
$u=-0.106988-0.793293I$ $a=-1.92839+1.12133I$ $b=\ \ 1.46699+0.64171I$	$-9.43550+3.53143I$	$-12.56667-1.79470I$
$u=\ \ 0.025886+1.204170I$ $a=\ \ 0.303685+0.255539I$ $b=\ \ 1.49078+0.03844I$	$-0.191346-0.659027I$	$-11.01369+0.18041I$
$u=\ \ 0.025886-1.204170I$ $a=\ \ 0.303685-0.255539I$ $b=\ \ 1.49078-0.03844I$	$-0.191346+0.659027I$	$-11.01369-0.18041I$
$u=-0.037809+1.237270I$ $a=-1.94630+1.18242I$ $b=-1.70472-0.14443I$	$-11.27710+2.89887I$	$-12.37719-4.00125I$
$u=-0.037809-1.237270I$ $a=-1.94630-1.18242I$ $b=-1.70472+0.14443I$	$-11.27710-2.89887I$	$-12.37719+4.00125I$
$u=\ \ 0.094901+0.727736I$ $a=-0.450339-0.582207I$ $b=-1.280430+0.124276I$	$1.74291+1.07503I$	$-2.00434-5.12506I$
$u=\ \ 0.094901-0.727736I$ $a=-0.450339+0.582207I$ $b=-1.280430-0.124276I$	$1.74291-1.07503I$	$-2.00434+5.12506I$
$u=\ \ 0.825233+0.992874I$ $a=\ \ 0.951049+0.073749I$ $b=\ \ 0.06217-2.04842I$	$0.00735+2.45343I$	$-9.65678-4.01473I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.825233 - 0.992874I$ $a = 0.951049 - 0.073749I$ $b = 0.06217 + 2.04842I$	$0.00735 - 2.45343I$	$-9.65678 + 4.01473I$
$u = -0.565426 + 0.391970I$ $a = 2.10301 + 0.78370I$ $b = -1.176150 + 0.693946I$	$-4.00587 + 3.40968I$	$-6.81173 + 0.18467I$
$u = -0.565426 - 0.391970I$ $a = 2.10301 - 0.78370I$ $b = -1.176150 - 0.693946I$	$-4.00587 - 3.40968I$	$-6.81173 - 0.18467I$
$u = -0.300164 + 1.301050I$ $a = -0.04683 - 1.87237I$ $b = 1.48880 - 0.09537I$	$-7.27855 - 6.80519I$	$-8.88118 + 6.12054I$
$u = -0.300164 - 1.301050I$ $a = -0.04683 + 1.87237I$ $b = 1.48880 + 0.09537I$	$-7.27855 + 6.80519I$	$-8.88118 - 6.12054I$
$u = 0.922425 + 1.028280I$ $a = 0.348151 + 1.114270I$ $b = 2.20817 - 2.16137I$	$-0.10540 + 4.13873I$	$-15.7530 - 3.7448I$
$u = 0.922425 - 1.028280I$ $a = 0.348151 - 1.114270I$ $b = 2.20817 + 2.16137I$	$-0.10540 - 4.13873I$	$-15.7530 + 3.7448I$
$u = -0.12017 + 1.41349I$ $a = -1.135870 - 0.798894I$ $b = -1.191820 - 0.590009I$	$-8.82752 - 0.38879I$	$-12.56677 + 0.I$
$u = -0.12017 - 1.41349I$ $a = -1.135870 + 0.798894I$ $b = -1.191820 + 0.590009I$	$-8.82752 + 0.38879I$	$-12.56677 + 0.I$
$u = 0.22660 + 1.42133I$ $a = 0.60486 - 1.42107I$ $b = -0.273567 - 0.658396I$	$-12.19970 + 3.90061I$	$-14.5545 - 6.4432I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.22660 - 1.42133I$ $a = \quad 0.60486 + 1.42107I$ $b = -0.273567 + 0.658396I$	$-12.19970 - 3.90061I$	$-14.5545 + 6.4432I$
$u = \quad 0.30041 + 1.44450I$ $a = \quad 0.10153 + 1.65659I$ $b = \quad 1.37530 + 0.62619I$	$-5.07286 + 5.81700I$	$-12.74429 + 0.I$
$u = \quad 0.30041 - 1.44450I$ $a = \quad 0.10153 - 1.65659I$ $b = \quad 1.37530 - 0.62619I$	$-5.07286 - 5.81700I$	$-12.74429 + 0.I$
$u = \quad 0.206565$ $a = -4.45311$ $b = \quad 1.92730$	-3.05706	-19.2140

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{34}-15u^{33}+\cdots+467u-53)(u^{64}-6u^{63}+\cdots-11638u+1297)$
c_2	$(u^{34}+2u^{33}+\cdots+3u-1)(u^{64}+3u^{63}+\cdots+274122u+178861)$
c_3	$(u^{34}-11u^{32}+\cdots-7u+3)(u^{64}-u^{63}+\cdots-514u+43)$
c_4	$(u^{34}-12u^{33}+\cdots-1360u+175)(u^{64}-7u^{63}+\cdots+35883u-2633)$
c_5	$(u^{34}+12u^{32}+\cdots+5u-3)(u^{64}+u^{63}+\cdots-146u-61)$
c_6	$(u^{34}-2u^{33}+\cdots-3u-1)(u^{64}+3u^{63}+\cdots+274122u+178861)$
c_7	$(u^{34}+u^{33}+\cdots-u-1)(u^{64}+2u^{63}+\cdots-1926u-359)$
c_8	$(u^{34}-11u^{32}+\cdots+7u+3)(u^{64}-u^{63}+\cdots-514u+43)$
c_9	$(u^{34}+3u^{33}+\cdots+27u+5)(u^{64}+2u^{63}+\cdots+52u-1)$
c_{10}	$(u^{34}+3u^{33}+\cdots+678u+173)$ $\cdot(u^{64}-8u^{63}+\cdots+360305u-493889)$
c_{11}	$(u^{34}+12u^{32}+\cdots-5u-3)(u^{64}+u^{63}+\cdots-146u-61)$
c_{12}	$(u^{34}-3u^{33}+\cdots-27u+5)(u^{64}+2u^{63}+\cdots+52u-1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{34} - 43y^{33} + \cdots - 6831y + 2809)$ $\cdot (y^{64} - 102y^{63} + \cdots - 115080144y + 1682209)$
c_2, c_6	$(y^{34} - 18y^{33} + \cdots + 13y + 1)$ $\cdot (y^{64} - 97y^{63} + \cdots - 66879492684y + 31991257321)$
c_3, c_8	$(y^{34} - 22y^{33} + \cdots - 217y + 9)(y^{64} - 65y^{63} + \cdots - 189118y + 1849)$
c_4	$(y^{34} - 36y^{33} + \cdots - 651200y + 30625)$ $\cdot (y^{64} - 103y^{63} + \cdots - 1148483033y + 6932689)$
c_5, c_{11}	$(y^{34} + 24y^{33} + \cdots + 143y + 9)(y^{64} + 61y^{63} + \cdots - 160274y + 3721)$
c_7	$(y^{34} + 3y^{33} + \cdots - 25y + 1)$ $\cdot (y^{64} - 20y^{63} + \cdots + 12391674y + 128881)$
c_9, c_{12}	$(y^{34} + 27y^{33} + \cdots - 309y + 25)(y^{64} + 56y^{63} + \cdots - 4566y + 1)$
c_{10}	$(y^{34} - y^{33} + \cdots + 164154y + 29929)$ $\cdot (y^{64} - 36y^{63} + \cdots - 918166302603y + 243926344321)$