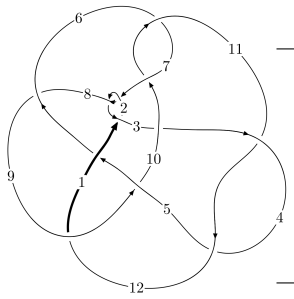
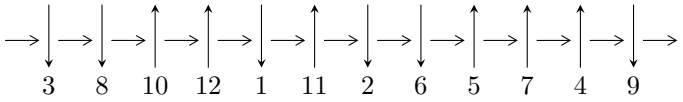
$12a_{0778}$ $(K12a_{0778})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 2.83192 \times 10^{557} u^{177} - 6.25443 \times 10^{556} u^{176} + \cdots + 5.07791 \times 10^{558} b - 2.49182 \times 10^{560}, \\ & 1.66942 \times 10^{562} u^{177} + 4.31753 \times 10^{560} u^{176} + \cdots + 5.53848 \times 10^{562} a - 9.73150 \times 10^{564}, \\ & u^{178} - u^{177} + \cdots - 3043u + 839 \rangle \\ I_2^u = \langle & -8317077395 u^{45} - 6692694951 u^{44} + \cdots + 1782959561 b - 14602686346, \\ & -39738567974 u^{45} - 7168731592677 u^{44} + \cdots + 622252886789 a + 2806256180785, \\ & u^{46} - 13u^{44} + \cdots + 3u + 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 224 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. $\boldsymbol{I_1^u = \langle 2.83 \times 10^{557} u^{177} - 6.25 \times 10^{556} u^{176} + \cdots + 5.08 \times 10^{558} b - 2.49 \times 10^{560},\ 1.67 \times 10^{562} u^{177} + 4.32 \times 10^{560} u^{176} + \cdots + 5.54 \times 10^{562} a - 9.73 \times 10^{564},\ u^{178} - u^{177} + \cdots - 3043u + 839 \rangle}$

(i) Arc colorings

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

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

$$a_8 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

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

$$a_1 = \begin{pmatrix} u^3 \\ u^5 - u^3 + u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.301422u^{177} - 0.00779552u^{176} + \cdots - 467.541u + 175.707 \\ -0.0557695u^{177} + 0.0123169u^{176} + \cdots - 99.9826u + 49.0718 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.148718u^{177} + 0.164496u^{176} + \cdots + 198.358u - 54.6244 \\ -0.0620492u^{177} + 0.137246u^{176} + \cdots + 315.427u - 72.3130 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.343320u^{177} - 0.0126359u^{176} + \cdots - 811.691u + 297.191 \\ 0.0116331u^{177} - 0.0316594u^{176} + \cdots - 105.316u + 43.9533 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.117881u^{177} + 0.0434351u^{176} + \cdots + 15.4920u - 18.5703 \\ -0.0604457u^{177} + 0.0849581u^{176} + \cdots + 172.096u - 31.1648 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.245653u^{177} - 0.0201125u^{176} + \cdots - 367.558u + 126.635 \\ -0.0557695u^{177} + 0.0123169u^{176} + \cdots - 99.9826u + 49.0718 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.0646156u^{177} - 0.244183u^{176} + \cdots + 260.057u - 165.861 \\ 0.0305702u^{177} - 0.0849381u^{176} + \cdots - 118.034u + 3.73802 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 0.120327u^{177} + 0.117052u^{176} + \cdots + 179.284u - 10.9664 \\ -0.113303u^{177} + 0.0278594u^{176} + \cdots - 245.370u + 99.0238 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.0572173u^{177} + 0.0141848u^{176} + \cdots - 447.259u + 188.065$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{178} + 85u^{177} + \cdots + 12261791u + 703921$
c_2, c_7	$u^{178} + u^{177} + \cdots + 3043u + 839$
c_3	$u^{178} + u^{177} + \cdots + 354196u + 339257$
c_4, c_{11}	$u^{178} + u^{177} + \cdots - 563010u + 122123$
c_5	$u^{178} + 5u^{177} + \cdots + 300u + 179$
c_6, c_{10}	$u^{178} + 46u^{176} + \cdots + 147913u + 12577$
c_8	$u^{178} - 8u^{177} + \cdots - 193237632u + 17520832$
c_9	$u^{178} - 3u^{177} + \cdots - 316u + 83$
c_{12}	$u^{178} + 6u^{177} + \cdots - 2444512u + 375469$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{178} + 31y^{177} + \cdots - 583680219959y + 495504774241$
c_2, c_7	$y^{178} - 85y^{177} + \cdots - 12261791y + 703921$
c_3	$y^{178} - 5y^{177} + \cdots + 10288606046288y + 115095312049$
c_4, c_{11}	$y^{178} - 133y^{177} + \cdots - 108608624088y + 14914027129$
c_5	$y^{178} - 19y^{177} + \cdots + 637456y + 32041$
c_6, c_{10}	$y^{178} + 92y^{177} + \cdots + 9058774801y + 158180929$
c_8	$y^{178} + 8y^{177} + \cdots + 24453354177839104y + 306979553972224$
c_9	$y^{178} - 35y^{177} + \cdots - 612962y + 6889$
c_{12}	$y^{178} + 40y^{177} + \cdots + 11873515289866y + 140976969961$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.002900 + 0.076332I$ $a = 0.410643 - 0.082087I$ $b = 0.579253 + 0.123214I$	$-2.11950 - 0.08413I$	0
$u = 1.002900 - 0.076332I$ $a = 0.410643 + 0.082087I$ $b = 0.579253 - 0.123214I$	$-2.11950 + 0.08413I$	0
$u = -0.226401 + 0.966400I$ $a = 0.409044 + 0.569674I$ $b = -0.439674 + 0.950963I$	$-0.53209 - 2.15422I$	0
$u = -0.226401 - 0.966400I$ $a = 0.409044 - 0.569674I$ $b = -0.439674 - 0.950963I$	$-0.53209 + 2.15422I$	0
$u = -0.335859 + 0.954059I$ $a = -0.159374 - 0.553582I$ $b = 0.536749 - 1.176660I$	$-1.52044 - 8.62842I$	0
$u = -0.335859 - 0.954059I$ $a = -0.159374 + 0.553582I$ $b = 0.536749 + 1.176660I$	$-1.52044 + 8.62842I$	0
$u = 0.919829 + 0.360834I$ $a = 3.14733 + 2.88557I$ $b = -0.080521 + 0.756472I$	$1.56137 + 3.49668I$	0
$u = 0.919829 - 0.360834I$ $a = 3.14733 - 2.88557I$ $b = -0.080521 - 0.756472I$	$1.56137 - 3.49668I$	0
$u = 0.374555 + 0.943169I$ $a = -0.356602 + 0.476093I$ $b = 0.677133 + 1.219760I$	$3.2314 + 14.8369I$	0
$u = 0.374555 - 0.943169I$ $a = -0.356602 - 0.476093I$ $b = 0.677133 - 1.219760I$	$3.2314 - 14.8369I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.733219+0.657144I$ $a=\ \ 0.290021-0.279870I$ $b=-0.720709-0.133801I$	$2.84448+0.62683I$	0
$u=-0.733219-0.657144I$ $a=\ \ 0.290021+0.279870I$ $b=-0.720709+0.133801I$	$2.84448-0.62683I$	0
$u=\ \ 0.879338+0.433465I$ $a=\ \ 0.674827-0.733572I$ $b=-0.627845-0.975355I$	$2.79221+0.32953I$	0
$u=\ \ 0.879338-0.433465I$ $a=\ \ 0.674827+0.733572I$ $b=-0.627845+0.975355I$	$2.79221-0.32953I$	0
$u=\ \ 0.925580+0.310759I$ $a=-1.67998-1.78962I$ $b=\ \ 0.121356+0.308713I$	$1.66529-6.27208I$	0
$u=\ \ 0.925580-0.310759I$ $a=-1.67998+1.78962I$ $b=\ \ 0.121356-0.308713I$	$1.66529+6.27208I$	0
$u=-0.997517+0.261432I$ $a=-0.648349+0.344258I$ $b=\ \ 0.289800-0.362909I$	$-3.41325+3.33568I$	0
$u=-0.997517-0.261432I$ $a=-0.648349-0.344258I$ $b=\ \ 0.289800+0.362909I$	$-3.41325-3.33568I$	0
$u=-0.503693+0.823683I$ $a=-0.0536241-0.0652593I$ $b=\ \ 0.694699-1.139340I$	$4.22856-6.39408I$	0
$u=-0.503693-0.823683I$ $a=-0.0536241+0.0652593I$ $b=\ \ 0.694699+1.139340I$	$4.22856+6.39408I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.863451 + 0.430814I$ $a = -1.35124 - 3.01221I$ $b = 0.421417 - 1.034660I$	$2.84586 - 3.91339I$	0
$u = 0.863451 - 0.430814I$ $a = -1.35124 + 3.01221I$ $b = 0.421417 + 1.034660I$	$2.84586 + 3.91339I$	0
$u = -0.932656 + 0.220528I$ $a = -0.026254 - 0.622186I$ $b = -0.752555 + 0.549421I$	$-3.02952 - 2.41652I$	0
$u = -0.932656 - 0.220528I$ $a = -0.026254 + 0.622186I$ $b = -0.752555 - 0.549421I$	$-3.02952 + 2.41652I$	0
$u = -0.961071 + 0.420548I$ $a = 0.69112 + 1.38885I$ $b = 1.43328 + 0.01277I$	$3.29043 + 3.04918I$	0
$u = -0.961071 - 0.420548I$ $a = 0.69112 - 1.38885I$ $b = 1.43328 - 0.01277I$	$3.29043 - 3.04918I$	0
$u = -0.791467 + 0.690929I$ $a = 0.642459 + 0.639450I$ $b = 0.357063 - 0.611371I$	$4.26263 + 0.47129I$	0
$u = -0.791467 - 0.690929I$ $a = 0.642459 - 0.639450I$ $b = 0.357063 + 0.611371I$	$4.26263 - 0.47129I$	0
$u = -0.860791 + 0.400076I$ $a = -0.033598 - 1.094830I$ $b = -1.348070 - 0.150928I$	$3.71483 + 0.26000I$	0
$u = -0.860791 - 0.400076I$ $a = -0.033598 + 1.094830I$ $b = -1.348070 + 0.150928I$	$3.71483 - 0.26000I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.455344 + 0.832194I$ $a = 0.102653 + 0.514193I$ $b = 0.418681 + 0.944244I$	$0.802586 - 0.654897I$	0
$u = 0.455344 - 0.832194I$ $a = 0.102653 - 0.514193I$ $b = 0.418681 - 0.944244I$	$0.802586 + 0.654897I$	0
$u = 1.000000 + 0.351874I$ $a = 0.74966 + 2.66662I$ $b = 0.33424 + 1.39910I$	$-3.13518 + 3.47455I$	0
$u = 1.000000 - 0.351874I$ $a = 0.74966 - 2.66662I$ $b = 0.33424 - 1.39910I$	$-3.13518 - 3.47455I$	0
$u = -0.537889 + 0.769907I$ $a = -0.343867 - 0.772663I$ $b = 0.639669 - 0.652252I$	$6.38925 + 5.50798I$	0
$u = -0.537889 - 0.769907I$ $a = -0.343867 + 0.772663I$ $b = 0.639669 + 0.652252I$	$6.38925 - 5.50798I$	0
$u = -0.534702 + 0.760598I$ $a = 0.937376 - 0.313056I$ $b = -0.614535 - 0.327178I$	$2.93093 - 1.13494I$	0
$u = -0.534702 - 0.760598I$ $a = 0.937376 + 0.313056I$ $b = -0.614535 + 0.327178I$	$2.93093 + 1.13494I$	0
$u = -0.643610 + 0.668376I$ $a = 1.19281 + 1.30833I$ $b = -0.391945 + 0.888057I$	$4.34906 - 3.89150I$	0
$u = -0.643610 - 0.668376I$ $a = 1.19281 - 1.30833I$ $b = -0.391945 - 0.888057I$	$4.34906 + 3.89150I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.988809+0.419771I$ $a=-0.88141+1.67174I$ $b=-0.40629+1.54254I$	$-5.51999+2.80665I$	0
$u=-0.988809-0.419771I$ $a=-0.88141-1.67174I$ $b=-0.40629-1.54254I$	$-5.51999-2.80665I$	0
$u=-1.030990+0.316344I$ $a=\ \ 0.19031-2.38027I$ $b=\ \ 0.124233-1.320040I$	$-6.88304+0.74630I$	0
$u=-1.030990-0.316344I$ $a=\ \ 0.19031+2.38027I$ $b=\ \ 0.124233+1.320040I$	$-6.88304-0.74630I$	0
$u=\ \ 0.491681+0.960663I$ $a=\ \ 0.515797-0.415645I$ $b=-0.520340-1.091510I$	$0.75536+5.62661I$	0
$u=\ \ 0.491681-0.960663I$ $a=\ \ 0.515797+0.415645I$ $b=-0.520340+1.091510I$	$0.75536-5.62661I$	0
$u=-1.046150+0.296906I$ $a=\ \ 1.38627-2.34666I$ $b=\ \ 0.089296-1.179670I$	$-3.92608-1.74841I$	0
$u=-1.046150-0.296906I$ $a=\ \ 1.38627+2.34666I$ $b=\ \ 0.089296+1.179670I$	$-3.92608+1.74841I$	0
$u=-0.429853+0.793813I$ $a=-0.614416+0.550696I$ $b=\ \ 1.082700+0.414154I$	$5.80834-8.54207I$	0
$u=-0.429853-0.793813I$ $a=-0.614416-0.550696I$ $b=\ \ 1.082700-0.414154I$	$5.80834+8.54207I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.918420+0.608142I$ $a=\ \ 0.530491-0.020921I$ $b=-0.607930-0.613409I$	$3.86855+4.56902I$	0
$u=-0.918420-0.608142I$ $a=\ \ 0.530491+0.020921I$ $b=-0.607930+0.613409I$	$3.86855-4.56902I$	0
$u=\ \ 1.100700+0.116686I$ $a=-0.427374+1.031190I$ $b=-0.906577+0.038589I$	$0.64153+6.43482I$	0
$u=\ \ 1.100700-0.116686I$ $a=-0.427374-1.031190I$ $b=-0.906577-0.038589I$	$0.64153-6.43482I$	0
$u=\ \ 0.745874+0.823185I$ $a=\ \ 0.826267-0.189595I$ $b=-0.381633+0.815684I$	$4.59093+0.58252I$	0
$u=\ \ 0.745874-0.823185I$ $a=\ \ 0.826267+0.189595I$ $b=-0.381633-0.815684I$	$4.59093-0.58252I$	0
$u=-0.532615+0.978017I$ $a=-0.015242+0.382866I$ $b=\ \ 0.319357+0.756103I$	$4.00579+2.21397I$	0
$u=-0.532615-0.978017I$ $a=-0.015242-0.382866I$ $b=\ \ 0.319357-0.756103I$	$4.00579-2.21397I$	0
$u=\ \ 0.498374+0.728878I$ $a=-0.358226-0.756736I$ $b=\ \ 0.875651-0.219517I$	$1.36584+3.53840I$	0
$u=\ \ 0.498374-0.728878I$ $a=-0.358226+0.756736I$ $b=\ \ 0.875651+0.219517I$	$1.36584-3.53840I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.976578 + 0.555103I$ $a = -0.573430 + 0.514163I$ $b = -1.31301 - 0.55907I$	$4.99134 - 4.59016I$	0
$u = 0.976578 - 0.555103I$ $a = -0.573430 - 0.514163I$ $b = -1.31301 + 0.55907I$	$4.99134 + 4.59016I$	0
$u = 0.065482 + 0.870039I$ $a = 0.324621 + 0.935946I$ $b = 0.382776 + 0.862810I$	$3.58038 + 1.00115I$	0
$u = 0.065482 - 0.870039I$ $a = 0.324621 - 0.935946I$ $b = 0.382776 - 0.862810I$	$3.58038 - 1.00115I$	0
$u = 0.638725 + 0.591019I$ $a = -0.82670 - 1.36318I$ $b = 1.084580 - 0.644673I$	$6.01799 + 0.02149I$	0
$u = 0.638725 - 0.591019I$ $a = -0.82670 + 1.36318I$ $b = 1.084580 + 0.644673I$	$6.01799 - 0.02149I$	0
$u = -1.065930 + 0.376474I$ $a = -1.10012 + 2.03588I$ $b = 0.597280 + 1.082100I$	$-4.12211 + 4.42876I$	0
$u = -1.065930 - 0.376474I$ $a = -1.10012 - 2.03588I$ $b = 0.597280 - 1.082100I$	$-4.12211 - 4.42876I$	0
$u = -0.892269 + 0.697624I$ $a = -0.118739 + 0.719472I$ $b = 0.567912 + 0.204651I$	$2.42353 + 4.54361I$	0
$u = -0.892269 - 0.697624I$ $a = -0.118739 - 0.719472I$ $b = 0.567912 - 0.204651I$	$2.42353 - 4.54361I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.027730 + 0.484842I$ $a = 1.40720 + 1.43551I$ $b = -0.647611 + 1.193990I$	$-4.98488 - 3.27724I$	0
$u = 1.027730 - 0.484842I$ $a = 1.40720 - 1.43551I$ $b = -0.647611 - 1.193990I$	$-4.98488 + 3.27724I$	0
$u = -1.017850 + 0.506171I$ $a = 1.205170 + 0.070273I$ $b = 0.862311 - 0.588679I$	$2.95096 + 0.50612I$	0
$u = -1.017850 - 0.506171I$ $a = 1.205170 - 0.070273I$ $b = 0.862311 + 0.588679I$	$2.95096 - 0.50612I$	0
$u = -1.068610 + 0.390671I$ $a = 1.53381 - 1.90229I$ $b = -0.234645 - 1.316720I$	$-4.22696 - 1.78557I$	0
$u = -1.068610 - 0.390671I$ $a = 1.53381 + 1.90229I$ $b = -0.234645 + 1.316720I$	$-4.22696 + 1.78557I$	0
$u = 1.117730 + 0.232156I$ $a = 1.06354 + 1.97674I$ $b = 0.51053 + 1.31920I$	$-1.55971 + 3.00952I$	0
$u = 1.117730 - 0.232156I$ $a = 1.06354 - 1.97674I$ $b = 0.51053 - 1.31920I$	$-1.55971 - 3.00952I$	0
$u = -0.805641 + 0.294796I$ $a = -1.07909 + 2.44263I$ $b = 0.11023 + 1.53526I$	$-4.63011 + 0.26293I$	0
$u = -0.805641 - 0.294796I$ $a = -1.07909 - 2.44263I$ $b = 0.11023 - 1.53526I$	$-4.63011 - 0.26293I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.030610 + 0.511647I$ $a = 0.857025 - 1.113470I$ $b = 1.46154 + 0.38377I$	$4.09351 - 2.85661I$	0
$u = 1.030610 - 0.511647I$ $a = 0.857025 + 1.113470I$ $b = 1.46154 - 0.38377I$	$4.09351 + 2.85661I$	0
$u = 1.056680 + 0.458003I$ $a = -1.02152 - 2.04281I$ $b = -0.03471 - 1.58391I$	$-3.83664 - 8.67245I$	0
$u = 1.056680 - 0.458003I$ $a = -1.02152 + 2.04281I$ $b = -0.03471 + 1.58391I$	$-3.83664 + 8.67245I$	0
$u = 0.078744 + 0.843924I$ $a = 0.951130 - 0.087666I$ $b = -0.634676 - 0.906333I$	$0.57601 + 2.49633I$	0
$u = 0.078744 - 0.843924I$ $a = 0.951130 + 0.087666I$ $b = -0.634676 + 0.906333I$	$0.57601 - 2.49633I$	0
$u = 0.504109 + 0.681189I$ $a = 0.623585 + 0.612398I$ $b = -0.493133 + 0.693577I$	$0.24404 - 1.65320I$	0
$u = 0.504109 - 0.681189I$ $a = 0.623585 - 0.612398I$ $b = -0.493133 - 0.693577I$	$0.24404 + 1.65320I$	0
$u = -1.020070 + 0.543373I$ $a = -2.28187 + 1.51956I$ $b = 0.446272 + 1.234780I$	$-1.82010 + 9.54280I$	0
$u = -1.020070 - 0.543373I$ $a = -2.28187 - 1.51956I$ $b = 0.446272 - 1.234780I$	$-1.82010 - 9.54280I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.147040 + 0.152395I$ $a = -0.43103 + 1.93203I$ $b = -0.290755 + 1.183820I$	$-1.91777 - 5.08765I$	0
$u = 1.147040 - 0.152395I$ $a = -0.43103 - 1.93203I$ $b = -0.290755 - 1.183820I$	$-1.91777 + 5.08765I$	0
$u = -1.000260 + 0.586099I$ $a = -1.58088 + 2.70672I$ $b = 0.264832 + 0.991964I$	$3.23768 + 8.77205I$	0
$u = -1.000260 - 0.586099I$ $a = -1.58088 - 2.70672I$ $b = 0.264832 - 0.991964I$	$3.23768 - 8.77205I$	0
$u = -0.600479 + 0.586771I$ $a = 0.346395 - 0.270473I$ $b = -0.772809 - 0.878034I$	$4.19283 + 3.80808I$	0
$u = -0.600479 - 0.586771I$ $a = 0.346395 + 0.270473I$ $b = -0.772809 + 0.878034I$	$4.19283 - 3.80808I$	0
$u = 0.742136 + 0.900992I$ $a = -0.532909 - 0.520069I$ $b = 0.538981 - 0.923745I$	$5.58174 - 10.10730I$	0
$u = 0.742136 - 0.900992I$ $a = -0.532909 + 0.520069I$ $b = 0.538981 + 0.923745I$	$5.58174 + 10.10730I$	0
$u = -0.340027 + 0.744242I$ $a = 0.395591 + 0.358633I$ $b = -0.75158 + 1.27553I$	$2.91374 - 5.66390I$	0
$u = -0.340027 - 0.744242I$ $a = 0.395591 - 0.358633I$ $b = -0.75158 - 1.27553I$	$2.91374 + 5.66390I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.414357 + 0.691815I$ $a = 0.303086 - 0.757140I$ $b = -0.483317 - 1.148190I$	$-0.00039 + 3.83804I$	0
$u = 0.414357 - 0.691815I$ $a = 0.303086 + 0.757140I$ $b = -0.483317 + 1.148190I$	$-0.00039 - 3.83804I$	0
$u = 1.068810 + 0.534728I$ $a = -1.81839 - 1.26370I$ $b = 0.301792 - 1.073170I$	$-5.39193 - 5.98434I$	0
$u = 1.068810 - 0.534728I$ $a = -1.81839 + 1.26370I$ $b = 0.301792 + 1.073170I$	$-5.39193 + 5.98434I$	0
$u = 1.056870 + 0.566007I$ $a = 0.268596 - 0.035077I$ $b = 0.698430 + 0.370411I$	$-1.41651 - 3.15188I$	0
$u = 1.056870 - 0.566007I$ $a = 0.268596 + 0.035077I$ $b = 0.698430 - 0.370411I$	$-1.41651 + 3.15188I$	0
$u = 0.145061 + 0.781986I$ $a = 0.730165 + 0.430423I$ $b = -0.339025 + 1.000820I$	$-0.539309 - 1.235390I$	0
$u = 0.145061 - 0.781986I$ $a = 0.730165 - 0.430423I$ $b = -0.339025 - 1.000820I$	$-0.539309 + 1.235390I$	0
$u = 1.129220 + 0.435354I$ $a = 0.65013 + 1.46535I$ $b = 0.228869 + 1.224050I$	$-3.59973 - 3.05282I$	0
$u = 1.129220 - 0.435354I$ $a = 0.65013 - 1.46535I$ $b = 0.228869 - 1.224050I$	$-3.59973 + 3.05282I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.124380 + 0.454383I$ $a = -0.32000 - 2.13154I$ $b = 0.705214 - 0.694556I$	$2.68104 - 6.28248I$	0
$u = 1.124380 - 0.454383I$ $a = -0.32000 + 2.13154I$ $b = 0.705214 + 0.694556I$	$2.68104 + 6.28248I$	0
$u = 0.963197 + 0.740219I$ $a = 0.325782 - 0.495321I$ $b = 0.270728 + 0.793305I$	$3.92026 - 6.41702I$	0
$u = 0.963197 - 0.740219I$ $a = 0.325782 + 0.495321I$ $b = 0.270728 - 0.793305I$	$3.92026 + 6.41702I$	0
$u = 1.062000 + 0.598702I$ $a = -0.296376 + 0.570831I$ $b = -1.089920 - 0.070772I$	$-0.31643 - 8.61700I$	0
$u = 1.062000 - 0.598702I$ $a = -0.296376 - 0.570831I$ $b = -1.089920 + 0.070772I$	$-0.31643 + 8.61700I$	0
$u = -1.037710 + 0.643579I$ $a = 0.88980 - 1.74986I$ $b = -0.431012 - 0.819080I$	$4.90267 - 0.17583I$	0
$u = -1.037710 - 0.643579I$ $a = 0.88980 + 1.74986I$ $b = -0.431012 + 0.819080I$	$4.90267 + 0.17583I$	0
$u = -0.577315 + 0.520736I$ $a = 1.071830 - 0.743579I$ $b = -0.316760 + 1.167730I$	$-0.45369 - 5.13953I$	0
$u = -0.577315 - 0.520736I$ $a = 1.071830 + 0.743579I$ $b = -0.316760 - 1.167730I$	$-0.45369 + 5.13953I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.088770 + 0.564897I$ $a = -1.25493 - 2.18049I$ $b = 0.470126 - 1.310230I$	$-1.98689 - 8.69701I$	0
$u = 1.088770 - 0.564897I$ $a = -1.25493 + 2.18049I$ $b = 0.470126 + 1.310230I$	$-1.98689 + 8.69701I$	0
$u = -1.190940 + 0.330945I$ $a = 0.447309 - 0.978475I$ $b = 0.585306 - 1.073920I$	$-3.56178 + 1.46203I$	0
$u = -1.190940 - 0.330945I$ $a = 0.447309 + 0.978475I$ $b = 0.585306 + 1.073920I$	$-3.56178 - 1.46203I$	0
$u = -1.067670 + 0.626280I$ $a = 0.032434 + 0.506548I$ $b = 0.836061 - 0.283749I$	$1.30935 + 6.42406I$	0
$u = -1.067670 - 0.626280I$ $a = 0.032434 - 0.506548I$ $b = 0.836061 + 0.283749I$	$1.30935 - 6.42406I$	0
$u = 0.745799 + 0.049882I$ $a = -0.93924 - 2.13980I$ $b = -0.26679 - 1.43329I$	$-1.77412 + 5.58953I$	0
$u = 0.745799 - 0.049882I$ $a = -0.93924 + 2.13980I$ $b = -0.26679 + 1.43329I$	$-1.77412 - 5.58953I$	0
$u = -1.117920 + 0.565724I$ $a = -1.21803 + 2.23264I$ $b = 0.77731 + 1.39873I$	$0.64025 + 10.62890I$	0
$u = -1.117920 - 0.565724I$ $a = -1.21803 - 2.23264I$ $b = 0.77731 - 1.39873I$	$0.64025 - 10.62890I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.166080 + 0.459572I$ $a = -0.87354 - 1.48854I$ $b = 0.802358 - 0.888925I$	$-2.74810 - 7.02865I$	0
$u = 1.166080 - 0.459572I$ $a = -0.87354 + 1.48854I$ $b = 0.802358 + 0.888925I$	$-2.74810 + 7.02865I$	0
$u = 1.080380 + 0.639060I$ $a = 0.96725 + 1.59238I$ $b = -0.446377 + 1.224980I$	$-1.03765 - 4.80800I$	0
$u = 1.080380 - 0.639060I$ $a = 0.96725 - 1.59238I$ $b = -0.446377 - 1.224980I$	$-1.03765 + 4.80800I$	0
$u = -1.082490 + 0.638777I$ $a = 1.06846 - 1.64530I$ $b = -0.76154 - 1.26899I$	$2.47727 + 11.85550I$	0
$u = -1.082490 - 0.638777I$ $a = 1.06846 + 1.64530I$ $b = -0.76154 + 1.26899I$	$2.47727 - 11.85550I$	0
$u = -1.104130 + 0.609169I$ $a = -0.576034 - 0.615111I$ $b = -1.230980 + 0.361625I$	$3.7990 + 13.8139I$	0
$u = -1.104130 - 0.609169I$ $a = -0.576034 + 0.615111I$ $b = -1.230980 - 0.361625I$	$3.7990 - 13.8139I$	0
$u = -1.263260 + 0.021990I$ $a = -0.02390 - 1.98412I$ $b = 0.297847 - 1.149880I$	$-5.89696 - 3.11148I$	0
$u = -1.263260 - 0.021990I$ $a = -0.02390 + 1.98412I$ $b = 0.297847 + 1.149880I$	$-5.89696 + 3.11148I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.163320+0.500177I$ $a=-1.36864+1.22472I$ $b=-0.056937+0.744575I$	$0.17746+3.58440I$	0
$u=-1.163320-0.500177I$ $a=-1.36864-1.22472I$ $b=-0.056937-0.744575I$	$0.17746-3.58440I$	0
$u=0.956045+0.832685I$ $a=-0.376165-0.165442I$ $b=-0.427025-0.808821I$	$4.94992+3.81076I$	0
$u=0.956045-0.832685I$ $a=-0.376165+0.165442I$ $b=-0.427025+0.808821I$	$4.94992-3.81076I$	0
$u=0.489584+0.518546I$ $a=0.935824+0.666432I$ $b=-1.249730+0.445727I$	$5.68299-1.39560I$	$11.11523+0.I$
$u=0.489584-0.518546I$ $a=0.935824-0.666432I$ $b=-1.249730-0.445727I$	$5.68299+1.39560I$	$11.11523+0.I$
$u=-0.634940+0.313078I$ $a=2.12399+0.07983I$ $b=0.203818-0.164584I$	$3.07344-0.45275I$	$0.-2.04570I$
$u=-0.634940-0.313078I$ $a=2.12399-0.07983I$ $b=0.203818+0.164584I$	$3.07344+0.45275I$	$0.+2.04570I$
$u=0.385920+0.576492I$ $a=1.027280+0.319387I$ $b=-0.097709-1.018770I$	$-3.45729+1.49634I$	$-6.03648-0.76331I$
$u=0.385920-0.576492I$ $a=1.027280-0.319387I$ $b=-0.097709+1.018770I$	$-3.45729-1.49634I$	$-6.03648+0.76331I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.026060+0.828448I$ $a=-0.376856+0.480730I$ $b=\ \ 0.003078+0.557286I$	$2.56853+4.27881I$	0
$u=-1.026060-0.828448I$ $a=-0.376856-0.480730I$ $b=\ \ 0.003078-0.557286I$	$2.56853-4.27881I$	0
$u=-1.326580+0.139331I$ $a=-0.50332+1.76180I$ $b=-0.518467+1.212420I$	$-2.76141-11.41250I$	0
$u=-1.326580-0.139331I$ $a=-0.50332-1.76180I$ $b=-0.518467-1.212420I$	$-2.76141+11.41250I$	0
$u=\ \ 1.150520+0.683850I$ $a=-1.29947-1.57463I$ $b=\ \ 0.574555-1.163460I$	$-1.30612-11.63750I$	0
$u=\ \ 1.150520-0.683850I$ $a=-1.29947+1.57463I$ $b=\ \ 0.574555+1.163460I$	$-1.30612+11.63750I$	0
$u=\ \ 1.176070+0.642500I$ $a=\ \ 1.11802+1.90279I$ $b=-0.70489+1.29500I$	$0.7855-20.6154I$	0
$u=\ \ 1.176070-0.642500I$ $a=\ \ 1.11802-1.90279I$ $b=-0.70489-1.29500I$	$0.7855+20.6154I$	0
$u=-1.187650+0.632861I$ $a=\ \ 0.98537-1.84503I$ $b=-0.56443-1.29825I$	$-4.1124+14.3834I$	0
$u=-1.187650-0.632861I$ $a=\ \ 0.98537+1.84503I$ $b=-0.56443+1.29825I$	$-4.1124-14.3834I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.213860+0.602592I$ $a=-0.91914+1.69461I$ $b=\ \ 0.515726+1.085740I$	$-3.50423+7.77458I$	0
$u=-1.213860-0.602592I$ $a=-0.91914-1.69461I$ $b=\ \ 0.515726-1.085740I$	$-3.50423-7.77458I$	0
$u=\ \ 0.428021+0.440537I$ $a=\ \ 0.038516-1.158420I$ $b=\ \ 0.336616+1.033640I$	$-3.28989-0.67593I$	$-3.46240+2.11656I$
$u=\ \ 0.428021-0.440537I$ $a=\ \ 0.038516+1.158420I$ $b=\ \ 0.336616-1.033640I$	$-3.28989+0.67593I$	$-3.46240-2.11656I$
$u=\ \ 1.374950+0.178516I$ $a=-0.48025-1.67648I$ $b=-0.304567-1.136550I$	$-7.42030+4.82870I$	0
$u=\ \ 1.374950-0.178516I$ $a=-0.48025+1.67648I$ $b=-0.304567+1.136550I$	$-7.42030-4.82870I$	0
$u=\ \ 0.272573+0.531501I$ $a=\ \ 0.434699-0.897984I$ $b=-0.906164-0.554310I$	$5.13662+2.23226I$	$10.58231-4.44049I$
$u=\ \ 0.272573-0.531501I$ $a=\ \ 0.434699+0.897984I$ $b=-0.906164+0.554310I$	$5.13662-2.23226I$	$10.58231+4.44049I$
$u=\ \ 1.266350+0.612971I$ $a=\ \ 0.53210+1.77694I$ $b=-0.323250+1.145190I$	$0.06076-6.49031I$	0
$u=\ \ 1.266350-0.612971I$ $a=\ \ 0.53210-1.77694I$ $b=-0.323250-1.145190I$	$0.06076+6.49031I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.41391+0.17970I$ $a=-0.29438+1.54211I$ $b=\ \ 0.026323+0.894160I$	$-5.28549+3.79395I$	0
$u=-1.41391-0.17970I$ $a=-0.29438-1.54211I$ $b=\ \ 0.026323-0.894160I$	$-5.28549-3.79395I$	0
$u=\ \ 1.40433+0.31068I$ $a=\ \ 0.25204+1.52788I$ $b=\ \ 0.249386+0.964809I$	$-5.90557-2.36507I$	0
$u=\ \ 1.40433-0.31068I$ $a=\ \ 0.25204-1.52788I$ $b=\ \ 0.249386-0.964809I$	$-5.90557+2.36507I$	0
$u=\ \ 0.145839+0.541331I$ $a=\ \ 0.568074+0.504752I$ $b=-0.177439+0.394688I$	$0.160507-1.160930I$	$2.09476+5.42026I$
$u=\ \ 0.145839-0.541331I$ $a=\ \ 0.568074-0.504752I$ $b=-0.177439-0.394688I$	$0.160507+1.160930I$	$2.09476-5.42026I$
$u=-0.013709+0.455046I$ $a=-1.062020+0.435805I$ $b=-0.037504-1.324710I$	$-1.45705+5.11933I$	$0.27914-6.27378I$
$u=-0.013709-0.455046I$ $a=-1.062020-0.435805I$ $b=-0.037504+1.324710I$	$-1.45705-5.11933I$	$0.27914+6.27378I$

II. $I_2^u =$
$\langle -8.32\times10^{9}u^{45}-6.69\times10^{9}u^{44}+\cdots+1.78\times10^{9}b-1.46\times10^{10},\ -3.97\times10^{10}u^{45}-7.17\times10^{12}u^{44}+\cdots+6.22\times10^{11}a+2.81\times10^{12},\ u^{46}-13u^{44}+\cdots+3u+1\rangle$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u \\ -u^3+u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^3 \\ u^5-u^3+u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0.0638624u^{45}+11.5206u^{44}+\cdots-14.4748u-4.50983 \\ 4.66476u^{45}+3.75370u^{44}+\cdots+22.8628u+8.19014 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 12.5295u^{45}+22.3749u^{44}+\cdots-46.5577u-13.7090 \\ 5.65793u^{45}+12.8490u^{44}+\cdots-58.2644u-18.8836 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -0.770723u^{45}-5.51237u^{44}+\cdots-39.5939u-10.8333 \\ 11.5357u^{45}-0.829968u^{44}+\cdots-2.61246u+3.05844 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 3.50039u^{45}+13.0643u^{44}+\cdots-10.8574u-4.45922 \\ -1.95735u^{45}+4.90763u^{44}+\cdots-32.4156u-12.7115 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -4.60090u^{45}+7.76691u^{44}+\cdots-37.3376u-12.7000 \\ 4.66476u^{45}+3.75370u^{44}+\cdots+22.8628u+8.19014 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 38.4502u^{45}+20.6340u^{44}+\cdots-156.788u-35.8446 \\ 10.3141u^{45}+3.14360u^{44}+\cdots-14.6467u-3.48782 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -20.7825u^{45}-4.86598u^{44}+\cdots+75.1849u+13.0014 \\ 4.18709u^{45}-10.2509u^{44}+\cdots+19.7218u+11.5511 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes
$= \frac{38029619317479}{622252886789}u^{45}+\frac{25499483632642}{622252886789}u^{44}+\cdots-\frac{86588044328609}{622252886789}u-\frac{10648278393868}{622252886789}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{46} - 26u^{45} + \cdots - 17u + 1$
c_2	$u^{46} - 13u^{44} + \cdots - 3u + 1$
c_3	$u^{46} - 7u^{44} + \cdots - 24u + 1$
c_4	$u^{46} + 2u^{45} + \cdots - 2u + 1$
c_5	$u^{46} - 4u^{44} + \cdots - 2u + 1$
c_6	$u^{46} - u^{45} + \cdots + 3u + 1$
c_7	$u^{46} - 13u^{44} + \cdots + 3u + 1$
c_8	$u^{46} + 3u^{45} + \cdots - 32u + 16$
c_9	$u^{46} - 12u^{44} + \cdots - 4u + 1$
c_{10}	$u^{46} + u^{45} + \cdots - 3u + 1$
c_{11}	$u^{46} - 2u^{45} + \cdots + 2u + 1$
c_{12}	$u^{46} - u^{45} + \cdots - 4u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{46} + 2y^{45} + \cdots + 79y + 1$
c_2, c_7	$y^{46} - 26y^{45} + \cdots - 17y + 1$
c_3	$y^{46} - 14y^{45} + \cdots - 126y + 1$
c_4, c_{11}	$y^{46} - 42y^{45} + \cdots + 94y + 1$
c_5	$y^{46} - 8y^{45} + \cdots - 6y + 1$
c_6, c_{10}	$y^{46} + 23y^{45} + \cdots + 39y + 1$
c_8	$y^{46} - 17y^{45} + \cdots + 6272y + 256$
c_9	$y^{46} - 24y^{45} + \cdots + 4y + 1$
c_{12}	$y^{46} + 11y^{45} + \cdots + 20y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.983450+0.307125I$ $a=1.27573-2.77840I$ $b=0.29492-1.44654I$	$-2.78091-4.08603I$	$-1.94989+7.15790I$
$u=-0.983450-0.307125I$ $a=1.27573+2.77840I$ $b=0.29492+1.44654I$	$-2.78091+4.08603I$	$-1.94989-7.15790I$
$u=0.508125+0.808557I$ $a=0.485368-0.343164I$ $b=-0.514311-1.170440I$	$1.38404+5.17961I$	$4.31891-4.07830I$
$u=0.508125-0.808557I$ $a=0.485368+0.343164I$ $b=-0.514311+1.170440I$	$1.38404-5.17961I$	$4.31891+4.07830I$
$u=0.486117+0.815840I$ $a=-0.290003+0.139054I$ $b=-0.317980+0.729688I$	$3.83350-1.89281I$	$3.03382-2.00944I$
$u=0.486117-0.815840I$ $a=-0.290003-0.139054I$ $b=-0.317980-0.729688I$	$3.83350+1.89281I$	$3.03382+2.00944I$
$u=1.016590+0.296435I$ $a=0.44819+1.44608I$ $b=0.299794+1.323860I$	$-5.66471-1.82909I$	$-6.27153+1.88473I$
$u=1.016590-0.296435I$ $a=0.44819-1.44608I$ $b=0.299794-1.323860I$	$-5.66471+1.82909I$	$-6.27153-1.88473I$
$u=1.017280+0.329546I$ $a=-1.84687-3.09272I$ $b=0.210314-0.683314I$	$1.18852-6.75745I$	$-5.85855+10.28788I$
$u=1.017280-0.329546I$ $a=-1.84687+3.09272I$ $b=0.210314+0.683314I$	$1.18852+6.75745I$	$-5.85855-10.28788I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.889217 + 0.238247I$ $a = 1.11063 + 2.67494I$ $b = -0.12897 + 1.43140I$	$-5.11527 - 0.32243I$	$-10.16583 + 0.17691I$
$u = 0.889217 - 0.238247I$ $a = 1.11063 - 2.67494I$ $b = -0.12897 - 1.43140I$	$-5.11527 + 0.32243I$	$-10.16583 - 0.17691I$
$u = -0.884696 + 0.216141I$ $a = -0.37171 - 1.45187I$ $b = -0.146917 - 1.365460I$	$-2.25285 + 6.28410I$	$-4.60391 - 10.79728I$
$u = -0.884696 - 0.216141I$ $a = -0.37171 + 1.45187I$ $b = -0.146917 + 1.365460I$	$-2.25285 - 6.28410I$	$-4.60391 + 10.79728I$
$u = -0.988939 + 0.481946I$ $a = 0.390173 + 1.243250I$ $b = 1.331530 - 0.244460I$	$3.69812 + 3.98830I$	$2.47414 - 8.23564I$
$u = -0.988939 - 0.481946I$ $a = 0.390173 - 1.243250I$ $b = 1.331530 + 0.244460I$	$3.69812 - 3.98830I$	$2.47414 + 8.23564I$
$u = 0.988505 + 0.485066I$ $a = 0.853617 - 0.897578I$ $b = 1.343740 + 0.128159I$	$3.71797 - 1.68279I$	$3.63985 + 0.I$
$u = 0.988505 - 0.485066I$ $a = 0.853617 + 0.897578I$ $b = 1.343740 - 0.128159I$	$3.71797 + 1.68279I$	$3.63985 + 0.I$
$u = -0.009183 + 0.881297I$ $a = 0.721467 + 0.459682I$ $b = -0.374509 + 0.930811I$	$-0.99961 - 1.53292I$	$-10.15313 + 1.71263I$
$u = -0.009183 - 0.881297I$ $a = 0.721467 - 0.459682I$ $b = -0.374509 - 0.930811I$	$-0.99961 + 1.53292I$	$-10.15313 - 1.71263I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.892666+0.689566I$ $a=-0.669806+0.547107I$ $b=-0.010882-0.472603I$	$4.38829+7.42541I$	$4.35147-8.92139I$
$u=-0.892666-0.689566I$ $a=-0.669806-0.547107I$ $b=-0.010882+0.472603I$	$4.38829-7.42541I$	$4.35147+8.92139I$
$u=-0.838787+0.758510I$ $a=1.286240-0.210947I$ $b=-0.093443-0.547401I$	$4.56776-1.93307I$	$0.+4.28767I$
$u=-0.838787-0.758510I$ $a=1.286240+0.210947I$ $b=-0.093443+0.547401I$	$4.56776+1.93307I$	$0.-4.28767I$
$u=0.793997+0.311124I$ $a=2.72418+1.51817I$ $b=-0.219312-0.546251I$	$2.02547+4.03936I$	$3.20903-6.00915I$
$u=0.793997-0.311124I$ $a=2.72418-1.51817I$ $b=-0.219312+0.546251I$	$2.02547-4.03936I$	$3.20903+6.00915I$
$u=0.690355+0.473788I$ $a=-0.260469+0.713147I$ $b=-1.082070+0.192047I$	$4.72985-2.27614I$	$6.16486+3.97617I$
$u=0.690355-0.473788I$ $a=-0.260469-0.713147I$ $b=-1.082070-0.192047I$	$4.72985+2.27614I$	$6.16486-3.97617I$
$u=-0.687149+0.469796I$ $a=0.97857-1.17245I$ $b=-1.075890-0.291723I$	$4.72077-0.05313I$	$6.00851+0.58112I$
$u=-0.687149-0.469796I$ $a=0.97857+1.17245I$ $b=-1.075890+0.291723I$	$4.72077+0.05313I$	$6.00851-0.58112I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.104990+0.484198I$ $a=-1.26286+1.49113I$ $b=\ \ 0.543770+0.938016I$	$-4.14170+5.74758I$	0
$u=-1.104990-0.484198I$ $a=-1.26286-1.49113I$ $b=\ \ 0.543770-0.938016I$	$-4.14170-5.74758I$	0
$u=\ \ 1.086570+0.602703I$ $a=-1.52060-1.91422I$ $b=\ \ 0.58461-1.31616I$	$-0.42089-10.46380I$	0
$u=\ \ 1.086570-0.602703I$ $a=-1.52060+1.91422I$ $b=\ \ 0.58461+1.31616I$	$-0.42089+10.46380I$	0
$u=\ \ 1.039100+0.794067I$ $a=\ \ 0.477616+0.305159I$ $b=\ \ 0.062581+0.655893I$	$2.33228-4.21371I$	0
$u=\ \ 1.039100-0.794067I$ $a=\ \ 0.477616-0.305159I$ $b=\ \ 0.062581-0.655893I$	$2.33228+4.21371I$	0
$u=-0.639983+0.249769I$ $a=\ \ 0.67363-1.32920I$ $b=-0.415246+0.716769I$	$-2.01785-2.39313I$	$2.05637+2.65893I$
$u=-0.639983-0.249769I$ $a=\ \ 0.67363+1.32920I$ $b=-0.415246-0.716769I$	$-2.01785+2.39313I$	$2.05637-2.65893I$
$u=-1.229560+0.569871I$ $a=-0.55297+1.90012I$ $b=\ \ 0.351530+1.133520I$	$-0.14432+6.37560I$	0
$u=-1.229560-0.569871I$ $a=-0.55297-1.90012I$ $b=\ \ 0.351530-1.133520I$	$-0.14432-6.37560I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.361530+0.103984I$ $a=-0.11044+1.88659I$ $b=\ \ 0.170996+0.980723I$	$-5.68699+4.24746I$	0
$u=-1.361530-0.103984I$ $a=-0.11044-1.88659I$ $b=\ \ 0.170996-0.980723I$	$-5.68699-4.24746I$	0
$u=\ \ 1.370330+0.276644I$ $a=\ \ 0.193597+1.398250I$ $b=\ \ 0.200358+0.968181I$	$-5.69358-2.75745I$	0
$u=\ \ 1.370330-0.276644I$ $a=\ \ 0.193597-1.398250I$ $b=\ \ 0.200358-0.968181I$	$-5.69358+2.75745I$	0
$u=-0.265250+0.299069I$ $a=\ \ 0.26672+3.18660I$ $b=-0.514614+0.864188I$	$3.26692-2.01340I$	$1.97380+3.73498I$
$u=-0.265250-0.299069I$ $a=\ \ 0.26672-3.18660I$ $b=-0.514614-0.864188I$	$3.26692+2.01340I$	$1.97380-3.73498I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{46}-26u^{45}+\cdots-17u+1)$ $\cdot(u^{178}+85u^{177}+\cdots+12261791u+703921)$
c_2	$(u^{46}-13u^{44}+\cdots-3u+1)(u^{178}+u^{177}+\cdots+3043u+839)$
c_3	$(u^{46}-7u^{44}+\cdots-24u+1)(u^{178}+u^{177}+\cdots+354196u+339257)$
c_4	$(u^{46}+2u^{45}+\cdots-2u+1)(u^{178}+u^{177}+\cdots-563010u+122123)$
c_5	$(u^{46}-4u^{44}+\cdots-2u+1)(u^{178}+5u^{177}+\cdots+300u+179)$
c_6	$(u^{46}-u^{45}+\cdots+3u+1)(u^{178}+46u^{176}+\cdots+147913u+12577)$
c_7	$(u^{46}-13u^{44}+\cdots+3u+1)(u^{178}+u^{177}+\cdots+3043u+839)$
c_8	$(u^{46}+3u^{45}+\cdots-32u+16)$ $\cdot(u^{178}-8u^{177}+\cdots-193237632u+17520832)$
c_9	$(u^{46}-12u^{44}+\cdots-4u+1)(u^{178}-3u^{177}+\cdots-316u+83)$
c_{10}	$(u^{46}+u^{45}+\cdots-3u+1)(u^{178}+46u^{176}+\cdots+147913u+12577)$
c_{11}	$(u^{46}-2u^{45}+\cdots+2u+1)(u^{178}+u^{177}+\cdots-563010u+122123)$
c_{12}	$(u^{46}-u^{45}+\cdots-4u+1)(u^{178}+6u^{177}+\cdots-2444512u+375469)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{46}+2y^{45}+\cdots+79y+1)$ $\cdot(y^{178}+31y^{177}+\cdots-583680219959y+495504774241)$
c_2, c_7	$(y^{46}-26y^{45}+\cdots-17y+1)$ $\cdot(y^{178}-85y^{177}+\cdots-12261791y+703921)$
c_3	$(y^{46}-14y^{45}+\cdots-126y+1)$ $\cdot(y^{178}-5y^{177}+\cdots+10288606046288y+115095312049)$
c_4, c_{11}	$(y^{46}-42y^{45}+\cdots+94y+1)$ $\cdot(y^{178}-133y^{177}+\cdots-108608624088y+14914027129)$
c_5	$(y^{46}-8y^{45}+\cdots-6y+1)(y^{178}-19y^{177}+\cdots+637456y+32041)$
c_6, c_{10}	$(y^{46}+23y^{45}+\cdots+39y+1)$ $\cdot(y^{178}+92y^{177}+\cdots+9058774801y+158180929)$
c_8	$(y^{46}-17y^{45}+\cdots+6272y+256)$ $\cdot(y^{178}+8y^{177}+\cdots+24453354177839104y+306979553972224)$
c_9	$(y^{46}-24y^{45}+\cdots+4y+1)(y^{178}-35y^{177}+\cdots-612962y+6889)$
c_{12}	$(y^{46}+11y^{45}+\cdots+20y+1)$ $\cdot(y^{178}+40y^{177}+\cdots+11873515289866y+140976969961)$