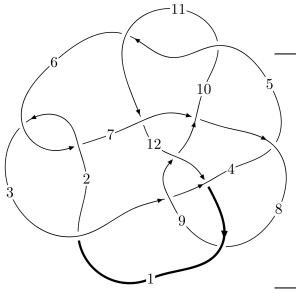
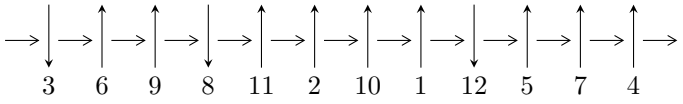
$12a_{0362}$ $(K12a_{0362})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 1.09391 \times 10^{617} u^{177} - 1.02067 \times 10^{617} u^{176} + \cdots + 4.00936 \times 10^{618} b + 2.51829 \times 10^{617}, \\ & - 4.73704 \times 10^{618} u^{177} - 4.88897 \times 10^{618} u^{176} + \cdots + 4.00936 \times 10^{618} a - 1.44374 \times 10^{620}, \\ & u^{178} + u^{177} + \cdots + 27u + 1 \rangle \\ I_2^u = \langle & 3.79704 \times 10^{21} u^{47} - 3.10231 \times 10^{21} u^{46} + \cdots + 8.55789 \times 10^{20} b - 1.69805 \times 10^{21}, \\ & - 7.58940 \times 10^{21} u^{47} - 4.07284 \times 10^{21} u^{46} + \cdots + 8.55789 \times 10^{20} a - 7.94307 \times 10^{21}, \\ & u^{48} + 12u^{46} + \cdots - 2u + 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 226 representations.

[1]The image of knot diagram is generated by the software "**Draw programme**" developed by Andrew Bartholomew(`http://www.layer8.co.uk/maths/draw/index.htm#Running-draw`), where we modified some parts for our purpose(`https://github.com/CATsTAILs/LinksPainter`).

[2]All coefficients of polynomials are rational numbers. But the coefficients are sometimes approximated in decimal forms when there is not enough margin.

I. $\boldsymbol{I_1^u = \langle 1.09 \times 10^{617} u^{177} - 1.02 \times 10^{617} u^{176} + \cdots + 4.01 \times 10^{618} b + 2.52 \times 10^{617},\ -4.74 \times 10^{618} u^{177} - 4.89 \times 10^{618} u^{176} + \cdots + 4.01 \times 10^{618} a - 1.44 \times 10^{620},\ u^{178} + u^{177} + \cdots + 27u + 1 \rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 1.18150u^{177} + 1.21939u^{176} + \cdots + 353.860u + 36.0091 \\ -0.0272838u^{177} + 0.0254572u^{176} + \cdots + 5.11312u - 0.0628102 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 1.21048u^{177} + 1.23059u^{176} + \cdots + 354.668u + 35.9943 \\ 0.00169582u^{177} + 0.0366573u^{176} + \cdots + 5.92101u - 0.0776582 \end{pmatrix}$$

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

$$a_5 = \begin{pmatrix} 1.04511u^{177} + 1.08550u^{176} + \cdots + 356.876u + 46.2201 \\ 0.0459851u^{177} + 0.0553124u^{176} + \cdots + 7.19847u - 0.0711398 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.655716u^{177} + 0.546379u^{176} + \cdots + 57.3868u - 21.4494 \\ -0.0378264u^{177} + 0.0399914u^{176} + \cdots - 6.74129u - 0.145199 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 4.84434u^{177} + 4.44597u^{176} + \cdots + 1101.50u + 25.6482 \\ -0.0951260u^{177} - 0.0570468u^{176} + \cdots - 25.9785u - 1.52855 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -2.51573u^{177} - 2.54974u^{176} + \cdots - 703.900u - 59.4404 \\ -0.0301826u^{177} + 0.0231466u^{176} + \cdots - 6.39834u + 0.288022 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 4.74229u^{177} + 4.34896u^{176} + \cdots + 1074.28u + 24.0664 \\ -0.0996690u^{177} - 0.0662741u^{176} + \cdots - 26.1414u - 1.53430 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.559391u^{177} - 0.623730u^{176} + \cdots - 171.415u - 9.44612$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{178} + 65u^{177} + \cdots - 113u + 1$
c_2, c_6	$u^{178} - u^{177} + \cdots - 27u + 1$
c_3	$u^{178} + 2u^{177} + \cdots + 264305u - 19304$
c_4	$u^{178} + 4u^{177} + \cdots - 1021989622123u + 820796062693$
c_5, c_{10}	$u^{178} + u^{177} + \cdots - 587u - 22$
c_7	$u^{178} - 7u^{177} + \cdots - 12535015u + 2055653$
c_8	$u^{178} - 5u^{177} + \cdots - 3889465u - 320519$
c_9	$u^{178} - 13u^{177} + \cdots - 562102508u - 86410391$
c_{11}	$u^{178} + u^{177} + \cdots - 235642121u - 12599233$
c_{12}	$u^{178} + 14u^{177} + \cdots + 2u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{178} + 105y^{177} + \cdots + 63999y + 1$
c_2, c_6	$y^{178} + 65y^{177} + \cdots - 113y + 1$
c_3	$y^{178} - 36y^{177} + \cdots - 39240487121y + 372644416$
c_4	$y^{178} + 106y^{177} + \cdots + 2.21 \times 10^{25}y + 6.74 \times 10^{23}$
c_5, c_{10}	$y^{178} - 129y^{177} + \cdots + 282299y + 484$
c_7	$y^{178} - 71y^{177} + \cdots - 350661278205151y + 4225709256409$
c_8	$y^{178} - 55y^{177} + \cdots - 10252412577651y + 102732429361$
c_9	$y^{178} + 55y^{177} + \cdots - 886494592097220180y + 7466755672772881$
c_{11}	$y^{178} - 73y^{177} + \cdots - 10158224326040469y + 158740672188289$
c_{12}	$y^{178} - 30y^{177} + \cdots - 146y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.859119+0.513450I$ $a=\ \ 0.878085+0.650808I$ $b=-0.079104+0.339433I$	$3.82339-3.46114I$	0
$u=-0.859119-0.513450I$ $a=\ \ 0.878085-0.650808I$ $b=-0.079104-0.339433I$	$3.82339+3.46114I$	0
$u=-0.769874+0.628691I$ $a=\ \ 1.062890+0.791096I$ $b=\ \ 0.139084-0.368892I$	$7.94922-4.21758I$	0
$u=-0.769874-0.628691I$ $a=\ \ 1.062890-0.791096I$ $b=\ \ 0.139084+0.368892I$	$7.94922+4.21758I$	0
$u=\ \ 0.828996+0.571670I$ $a=-0.222017+0.078368I$ $b=\ \ 0.898670+0.188255I$	$4.78436-3.83299I$	0
$u=\ \ 0.828996-0.571670I$ $a=-0.222017-0.078368I$ $b=\ \ 0.898670-0.188255I$	$4.78436+3.83299I$	0
$u=\ \ 0.757172+0.670466I$ $a=-0.596915+1.020860I$ $b=\ \ 0.670345-0.643006I$	$4.28018-5.54866I$	0
$u=\ \ 0.757172-0.670466I$ $a=-0.596915-1.020860I$ $b=\ \ 0.670345+0.643006I$	$4.28018+5.54866I$	0
$u=\ \ 0.107519+0.981553I$ $a=\ \ 0.72058-1.23183I$ $b=\ \ 1.17714-1.48945I$	$0.03298+5.95784I$	0
$u=\ \ 0.107519-0.981553I$ $a=\ \ 0.72058+1.23183I$ $b=\ \ 1.17714+1.48945I$	$0.03298-5.95784I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.756664+0.679092I$ $a=\ 0.870722+0.890242I$ $b=\ 0.293058-1.194150I$	$7.78438+0.31609I$	0
$u=-0.756664-0.679092I$ $a=\ 0.870722-0.890242I$ $b=\ 0.293058+1.194150I$	$7.78438-0.31609I$	0
$u=-0.594996+0.827585I$ $a=-0.401958+0.343841I$ $b=-0.460488+0.330134I$	$0.93989-2.36745I$	0
$u=-0.594996-0.827585I$ $a=-0.401958-0.343841I$ $b=-0.460488-0.330134I$	$0.93989+2.36745I$	0
$u=\ 0.253130+0.991188I$ $a=\ 0.867623+0.472107I$ $b=\ 1.69934+0.19609I$	$-4.57167+0.21050I$	0
$u=\ 0.253130-0.991188I$ $a=\ 0.867623-0.472107I$ $b=\ 1.69934-0.19609I$	$-4.57167-0.21050I$	0
$u=-0.131776+1.017800I$ $a=\ 0.494203+0.552245I$ $b=\ 1.161010+0.499242I$	$-2.10237-1.80316I$	0
$u=-0.131776-1.017800I$ $a=\ 0.494203-0.552245I$ $b=\ 1.161010-0.499242I$	$-2.10237+1.80316I$	0
$u=\ 0.775066+0.586338I$ $a=-1.116910+0.569471I$ $b=-1.122590-0.417819I$	$4.30200+4.87126I$	0
$u=\ 0.775066-0.586338I$ $a=-1.116910-0.569471I$ $b=-1.122590+0.417819I$	$4.30200-4.87126I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.753236+0.705012I$ $a=\ \ 0.83959+1.20984I$ $b=\ \ 0.337302-0.543381I$	$8.60996+5.04071I$	0
$u=-0.753236-0.705012I$ $a=\ \ 0.83959-1.20984I$ $b=\ \ 0.337302+0.543381I$	$8.60996-5.04071I$	0
$u=\ \ 0.798217+0.659087I$ $a=-1.069600+0.894830I$ $b=-0.426248+0.113939I$	$8.49438+4.02316I$	0
$u=\ \ 0.798217-0.659087I$ $a=-1.069600-0.894830I$ $b=-0.426248-0.113939I$	$8.49438-4.02316I$	0
$u=\ \ 0.685243+0.784827I$ $a=-0.832875+0.846927I$ $b=-3.09122+0.73027I$	$7.68740+4.28971I$	0
$u=\ \ 0.685243-0.784827I$ $a=-0.832875-0.846927I$ $b=-3.09122-0.73027I$	$7.68740-4.28971I$	0
$u=\ \ 0.637082+0.831471I$ $a=-0.229566-0.842409I$ $b=-0.273081+0.048990I$	$2.15438-1.12472I$	0
$u=\ \ 0.637082-0.831471I$ $a=-0.229566+0.842409I$ $b=-0.273081-0.048990I$	$2.15438+1.12472I$	0
$u=\ \ 0.784595+0.697307I$ $a=-0.73293+1.28579I$ $b=-0.0027880-0.0512937I$	$8.72690-5.63788I$	0
$u=\ \ 0.784595-0.697307I$ $a=-0.73293-1.28579I$ $b=-0.0027880+0.0512937I$	$8.72690+5.63788I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.710413+0.778956I$ $a=\ \ 0.730661+0.825186I$ $b=\ \ 3.22342+0.11499I$	$7.32413+4.13987I$	0
$u=-0.710413-0.778956I$ $a=\ \ 0.730661-0.825186I$ $b=\ \ 3.22342-0.11499I$	$7.32413-4.13987I$	0
$u=\ \ 0.654489+0.827755I$ $a=-0.066925-0.212319I$ $b=-0.471130+0.763997I$	$3.54333+0.77174I$	0
$u=\ \ 0.654489-0.827755I$ $a=-0.066925+0.212319I$ $b=-0.471130-0.763997I$	$3.54333-0.77174I$	0
$u=-0.690909+0.807146I$ $a=\ \ 0.755212-0.280451I$ $b=\ \ 1.122940+0.761376I$	$1.63802+1.17939I$	0
$u=-0.690909-0.807146I$ $a=\ \ 0.755212+0.280451I$ $b=\ \ 1.122940-0.761376I$	$1.63802-1.17939I$	0
$u=-0.051295+0.932997I$ $a=\ \ 0.196937-1.390440I$ $b=\ \ 1.35534+0.65426I$	$3.00062+4.93850I$	0
$u=-0.051295-0.932997I$ $a=\ \ 0.196937+1.390440I$ $b=\ \ 1.35534-0.65426I$	$3.00062-4.93850I$	0
$u=\ \ 0.055992+1.067270I$ $a=\ \ 0.299556-1.180360I$ $b=\ \ 0.95259-1.87025I$	$2.98711+4.93923I$	0
$u=\ \ 0.055992-1.067270I$ $a=\ \ 0.299556+1.180360I$ $b=\ \ 0.95259+1.87025I$	$2.98711-4.93923I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.776104+0.743970I$ $a=\ \ 0.79359+1.33980I$ $b=\ \ 0.647679+0.121307I$	$5.84158+5.25276I$	0
$u=-0.776104-0.743970I$ $a=\ \ 0.79359-1.33980I$ $b=\ \ 0.647679-0.121307I$	$5.84158-5.25276I$	0
$u=-0.088160+0.920459I$ $a=\ \ 0.735937+0.551662I$ $b=\ \ 1.84008+0.63131I$	$-2.06178-2.35501I$	0
$u=-0.088160-0.920459I$ $a=\ \ 0.735937-0.551662I$ $b=\ \ 1.84008-0.63131I$	$-2.06178+2.35501I$	0
$u=-0.901902+0.589366I$ $a=-0.384938+0.899525I$ $b=-0.864785+0.056309I$	$4.97624+0.02860I$	0
$u=-0.901902-0.589366I$ $a=-0.384938-0.899525I$ $b=-0.864785-0.056309I$	$4.97624-0.02860I$	0
$u=-1.005860+0.386592I$ $a=-0.023711-0.415093I$ $b=-0.759654+0.149267I$	$3.41766-4.52329I$	0
$u=-1.005860-0.386592I$ $a=-0.023711+0.415093I$ $b=-0.759654-0.149267I$	$3.41766+4.52329I$	0
$u=\ \ 0.431856+0.988775I$ $a=-0.744058+0.282002I$ $b=-1.64677-0.15271I$	$-3.53082+5.68006I$	0
$u=\ \ 0.431856-0.988775I$ $a=-0.744058-0.282002I$ $b=-1.64677+0.15271I$	$-3.53082-5.68006I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.865071 + 0.648349I$ $a = 0.487618 + 0.969661I$ $b = 0.859200 + 0.065849I$	$5.18069 - 8.61128I$	0
$u = 0.865071 - 0.648349I$ $a = 0.487618 - 0.969661I$ $b = 0.859200 - 0.065849I$	$5.18069 + 8.61128I$	0
$u = -0.064158 + 1.081380I$ $a = -0.252839 - 0.873070I$ $b = -1.14380 - 2.03276I$	$-1.49500 - 5.13459I$	0
$u = -0.064158 - 1.081380I$ $a = -0.252839 + 0.873070I$ $b = -1.14380 + 2.03276I$	$-1.49500 + 5.13459I$	0
$u = 0.807956 + 0.726655I$ $a = 0.622056 - 0.923463I$ $b = 0.343229 + 0.357295I$	$4.33289 - 1.17468I$	0
$u = 0.807956 - 0.726655I$ $a = 0.622056 + 0.923463I$ $b = 0.343229 - 0.357295I$	$4.33289 + 1.17468I$	0
$u = -0.611960 + 0.902463I$ $a = -0.430207 + 0.590458I$ $b = -0.906526 + 0.597908I$	$0.82840 - 2.33599I$	0
$u = -0.611960 - 0.902463I$ $a = -0.430207 - 0.590458I$ $b = -0.906526 - 0.597908I$	$0.82840 + 2.33599I$	0
$u = 0.822939 + 0.719679I$ $a = -0.75598 + 1.20689I$ $b = -0.243981 + 0.322001I$	$8.82515 - 1.40475I$	0
$u = 0.822939 - 0.719679I$ $a = -0.75598 - 1.20689I$ $b = -0.243981 - 0.322001I$	$8.82515 + 1.40475I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.691061+0.850501I$ $a=\ \ 0.828554-0.792813I$ $b=\ \ 1.280470-0.004560I$	$3.58193-0.54006I$	0
$u=-0.691061-0.850501I$ $a=\ \ 0.828554+0.792813I$ $b=\ \ 1.280470+0.004560I$	$3.58193+0.54006I$	0
$u=-0.087457+1.094210I$ $a=-0.413329-1.032040I$ $b=-0.74889-1.91427I$	$2.65095-5.47553I$	0
$u=-0.087457-1.094210I$ $a=-0.413329+1.032040I$ $b=-0.74889+1.91427I$	$2.65095+5.47553I$	0
$u=\ \ 0.653656+0.885750I$ $a=-0.097818-0.187833I$ $b=-1.168800+0.285092I$	$3.36699+4.32043I$	0
$u=\ \ 0.653656-0.885750I$ $a=-0.097818+0.187833I$ $b=-1.168800-0.285092I$	$3.36699-4.32043I$	0
$u=-0.754634+0.802429I$ $a=\ \ 1.40553+0.56485I$ $b=\ \ 2.09554+0.90708I$	$8.91407+1.56813I$	0
$u=-0.754634-0.802429I$ $a=\ \ 1.40553-0.56485I$ $b=\ \ 2.09554-0.90708I$	$8.91407-1.56813I$	0
$u=\ \ 0.689892+0.867882I$ $a=-1.28608-1.09970I$ $b=-1.70168-0.72921I$	$-0.83658+2.65588I$	0
$u=\ \ 0.689892-0.867882I$ $a=-1.28608+1.09970I$ $b=-1.70168+0.72921I$	$-0.83658-2.65588I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.773330 + 0.796565I$ $a = -1.279430 + 0.485677I$ $b = -2.13274 + 1.02589I$	$8.47619 + 6.26633I$	0
$u = 0.773330 - 0.796565I$ $a = -1.279430 - 0.485677I$ $b = -2.13274 - 1.02589I$	$8.47619 - 6.26633I$	0
$u = 0.665589 + 0.894658I$ $a = -0.737613 - 0.146634I$ $b = -1.80750 + 0.04262I$	$1.94371 + 6.21477I$	0
$u = 0.665589 - 0.894658I$ $a = -0.737613 + 0.146634I$ $b = -1.80750 - 0.04262I$	$1.94371 - 6.21477I$	0
$u = -0.428880 + 0.773481I$ $a = -0.865618 - 0.145860I$ $b = -0.570865 - 0.217822I$	$1.21674 - 2.08359I$	0
$u = -0.428880 - 0.773481I$ $a = -0.865618 + 0.145860I$ $b = -0.570865 + 0.217822I$	$1.21674 + 2.08359I$	0
$u = -0.691421 + 0.881730I$ $a = 0.835843 - 0.747645I$ $b = 1.66018 - 0.21199I$	$3.48485 - 4.78094I$	0
$u = -0.691421 - 0.881730I$ $a = 0.835843 + 0.747645I$ $b = 1.66018 + 0.21199I$	$3.48485 + 4.78094I$	0
$u = 0.213123 + 1.100780I$ $a = 0.115302 - 0.855901I$ $b = 1.005820 - 0.949934I$	$1.53168 - 0.09302I$	0
$u = 0.213123 - 1.100780I$ $a = 0.115302 + 0.855901I$ $b = 1.005820 + 0.949934I$	$1.53168 + 0.09302I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.059714 + 0.861764I$ $a = -0.12660 - 1.76033I$ $b = -0.729951 - 0.215953I$	$3.88079 + 3.25094I$	0
$u = 0.059714 - 0.861764I$ $a = -0.12660 + 1.76033I$ $b = -0.729951 + 0.215953I$	$3.88079 - 3.25094I$	0
$u = -0.684588 + 0.912465I$ $a = 0.333389 - 0.748729I$ $b = 1.47026 - 0.18844I$	$1.31431 - 6.48090I$	0
$u = -0.684588 - 0.912465I$ $a = 0.333389 + 0.748729I$ $b = 1.47026 + 0.18844I$	$1.31431 + 6.48090I$	0
$u = 0.664597 + 0.931591I$ $a = 0.612186 - 0.990866I$ $b = 0.711918 + 1.214260I$	$7.22827 + 0.93256I$	0
$u = 0.664597 - 0.931591I$ $a = 0.612186 + 0.990866I$ $b = 0.711918 - 1.214260I$	$7.22827 - 0.93256I$	0
$u = -0.068617 + 0.851219I$ $a = -0.528934 - 0.784604I$ $b = -1.90863 + 0.32368I$	$-2.27221 + 2.52251I$	0
$u = -0.068617 - 0.851219I$ $a = -0.528934 + 0.784604I$ $b = -1.90863 - 0.32368I$	$-2.27221 - 2.52251I$	0
$u = -0.248823 + 1.130670I$ $a = -0.079674 + 0.755072I$ $b = -0.281280 + 1.004990I$	$-2.76644 - 2.09143I$	0
$u = -0.248823 - 1.130670I$ $a = -0.079674 - 0.755072I$ $b = -0.281280 - 1.004990I$	$-2.76644 + 2.09143I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.688153+0.941493I$ $a=-0.655244-0.836923I$ $b=-1.49070+1.61362I$	$6.81987-9.51359I$	0
$u=-0.688153-0.941493I$ $a=-0.655244+0.836923I$ $b=-1.49070-1.61362I$	$6.81987+9.51359I$	0
$u=-0.435549+1.091350I$ $a=-0.474695-0.580565I$ $b=-0.378871-1.013870I$	$1.36962-1.85138I$	0
$u=-0.435549-1.091350I$ $a=-0.474695+0.580565I$ $b=-0.378871+1.013870I$	$1.36962+1.85138I$	0
$u=-0.426238+1.095500I$ $a=0.722885+0.789432I$ $b=1.73771+1.27777I$	$-1.62591-5.22432I$	0
$u=-0.426238-1.095500I$ $a=0.722885-0.789432I$ $b=1.73771-1.27777I$	$-1.62591+5.22432I$	0
$u=-0.725869+0.933806I$ $a=-0.42474-1.41475I$ $b=-0.085973-0.555687I$	$8.50836-7.19045I$	0
$u=-0.725869-0.933806I$ $a=-0.42474+1.41475I$ $b=-0.085973+0.555687I$	$8.50836+7.19045I$	0
$u=0.138314+0.794865I$ $a=1.84525+0.01750I$ $b=2.23043+0.11273I$	$-3.88408+0.62478I$	0
$u=0.138314-0.794865I$ $a=1.84525-0.01750I$ $b=2.23043-0.11273I$	$-3.88408-0.62478I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.175867+1.183090I$ $a=-0.773028+0.269015I$ $b=-1.66233-0.24987I$	$-1.98898-7.82821I$	0
$u=-0.175867-1.183090I$ $a=-0.773028-0.269015I$ $b=-1.66233+0.24987I$	$-1.98898+7.82821I$	0
$u=\ \ 0.742769+0.943105I$ $a=\ \ 0.399672-1.257800I$ $b=-0.070820-0.167804I$	$8.02705-0.53637I$	0
$u=\ \ 0.742769-0.943105I$ $a=\ \ 0.399672+1.257800I$ $b=-0.070820+0.167804I$	$8.02705+0.53637I$	0
$u=-1.005000+0.674254I$ $a=-0.763454-0.991265I$ $b=-0.186321+0.306636I$	$10.3472+14.3037I$	0
$u=-1.005000-0.674254I$ $a=-0.763454+0.991265I$ $b=-0.186321-0.306636I$	$10.3472-14.3037I$	0
$u=-0.722759+0.976981I$ $a=-1.157800-0.801730I$ $b=-2.24336-0.88064I$	$5.12931-10.92910I$	0
$u=-0.722759-0.976981I$ $a=-1.157800+0.801730I$ $b=-2.24336+0.88064I$	$5.12931+10.92910I$	0
$u=-0.702421+0.992930I$ $a=-0.951897-0.798342I$ $b=-2.47015-1.19092I$	$7.73847-10.59110I$	0
$u=-0.702421-0.992930I$ $a=-0.951897+0.798342I$ $b=-2.47015+1.19092I$	$7.73847+10.59110I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.082395+0.770905I$ $a=-0.971468-0.380948I$ $b=-1.62493+0.50157I$	$0.10404+1.41923I$	0
$u=-0.082395-0.770905I$ $a=-0.971468+0.380948I$ $b=-1.62493-0.50157I$	$0.10404-1.41923I$	0
$u=-0.702625+1.003460I$ $a=-0.669800-0.752517I$ $b=-2.55167-1.06670I$	$6.81481-5.87899I$	0
$u=-0.702625-1.003460I$ $a=-0.669800+0.752517I$ $b=-2.55167+1.06670I$	$6.81481+5.87899I$	0
$u=0.695367+1.008570I$ $a=0.773696-0.531545I$ $b=2.30392-1.67276I$	$3.26597+11.08620I$	0
$u=0.695367-1.008570I$ $a=0.773696+0.531545I$ $b=2.30392+1.67276I$	$3.26597-11.08620I$	0
$u=0.733919+0.990989I$ $a=-0.830395+0.547240I$ $b=-2.06470+0.68682I$	$3.52769+6.96997I$	0
$u=0.733919-0.990989I$ $a=-0.830395-0.547240I$ $b=-2.06470-0.68682I$	$3.52769-6.96997I$	0
$u=0.716172+1.004540I$ $a=1.061840-0.659607I$ $b=2.20371-1.26389I$	$7.79793+11.31820I$	0
$u=0.716172-1.004540I$ $a=1.061840+0.659607I$ $b=2.20371+1.26389I$	$7.79793-11.31820I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.036263+1.236210I$ $a=\ 0.478298+0.242680I$ $b=\ 1.086370-0.243911I$	$-1.69291-2.11297I$	0
$u=-0.036263-1.236210I$ $a=\ 0.478298-0.242680I$ $b=\ 1.086370+0.243911I$	$-1.69291+2.11297I$	0
$u=\ 0.743439+1.000500I$ $a=\ 1.087320-0.661064I$ $b=\ 1.86657-1.00083I$	$7.97270+7.27578I$	0
$u=\ 0.743439-1.000500I$ $a=\ 1.087320+0.661064I$ $b=\ 1.86657+1.00083I$	$7.97270-7.27578I$	0
$u=\ 0.770932+0.989960I$ $a=\ 0.569631-0.719099I$ $b=\ 1.46215+0.02503I$	$3.15900+1.27533I$	0
$u=\ 0.770932-0.989960I$ $a=\ 0.569631+0.719099I$ $b=\ 1.46215-0.02503I$	$3.15900-1.27533I$	0
$u=-0.704185+1.047690I$ $a=-0.551114-0.782373I$ $b=-1.47313-1.28236I$	$6.70026-1.40092I$	0
$u=-0.704185-1.047690I$ $a=-0.551114+0.782373I$ $b=-1.47313+1.28236I$	$6.70026+1.40092I$	0
$u=-0.720421+0.150681I$ $a=-1.44269-0.63606I$ $b=-0.255260+0.132036I$	$1.21559+1.05115I$	0
$u=-0.720421-0.150681I$ $a=-1.44269+0.63606I$ $b=-0.255260-0.132036I$	$1.21559-1.05115I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.801475+0.979398I$ $a=-0.141509+0.455445I$ $b=-0.351013-0.132418I$	$1.95365-2.74171I$	0
$u=-0.801475-0.979398I$ $a=-0.141509-0.455445I$ $b=-0.351013+0.132418I$	$1.95365+2.74171I$	0
$u=\ 0.701114+1.060560I$ $a=\ 0.151344+0.000224I$ $b=\ 0.284550-0.952431I$	$3.34759+9.55470I$	0
$u=\ 0.701114-1.060560I$ $a=\ 0.151344-0.000224I$ $b=\ 0.284550+0.952431I$	$3.34759-9.55470I$	0
$u=\ 0.729457+1.043250I$ $a=\ 0.696053-0.802762I$ $b=\ 1.26712-1.09205I$	$7.34414+1.75059I$	0
$u=\ 0.729457-1.043250I$ $a=\ 0.696053+0.802762I$ $b=\ 1.26712+1.09205I$	$7.34414-1.75059I$	0
$u=\ 0.732727+1.048180I$ $a=\ 0.875464+0.488862I$ $b=\ 1.73923+0.05978I$	$3.9657+14.5518I$	0
$u=\ 0.732727-1.048180I$ $a=\ 0.875464-0.488862I$ $b=\ 1.73923-0.05978I$	$3.9657-14.5518I$	0
$u=-0.852755+0.957193I$ $a=-0.710020-0.064648I$ $b=-1.271960-0.230455I$	$2.11614-3.69480I$	0
$u=-0.852755-0.957193I$ $a=-0.710020+0.064648I$ $b=-1.271960+0.230455I$	$2.11614+3.69480I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.094870 + 0.671460I$ $a = 0.733909 - 0.867549I$ $b = 0.236044 + 0.300448I$	$9.84869 - 5.25746I$	0
$u = 1.094870 - 0.671460I$ $a = 0.733909 + 0.867549I$ $b = 0.236044 - 0.300448I$	$9.84869 + 5.25746I$	0
$u = 0.096098 + 0.695738I$ $a = 0.0357836 + 0.0332813I$ $b = 1.48260 + 0.81204I$	$-1.51047 - 2.72987I$	0
$u = 0.096098 - 0.695738I$ $a = 0.0357836 - 0.0332813I$ $b = 1.48260 - 0.81204I$	$-1.51047 + 2.72987I$	0
$u = 0.966910 + 0.869936I$ $a = -0.699102 + 0.500178I$ $b = -1.360340 + 0.048456I$	$3.86258 + 5.08823I$	0
$u = 0.966910 - 0.869936I$ $a = -0.699102 - 0.500178I$ $b = -1.360340 - 0.048456I$	$3.86258 - 5.08823I$	0
$u = -0.742479 + 1.084170I$ $a = -0.807523 + 0.464536I$ $b = -1.59770 - 0.02630I$	$3.49514 - 6.09670I$	0
$u = -0.742479 - 1.084170I$ $a = -0.807523 - 0.464536I$ $b = -1.59770 + 0.02630I$	$3.49514 + 6.09670I$	0
$u = -1.164130 + 0.651829I$ $a = -0.824760 - 0.479288I$ $b = -0.366986 + 0.021813I$	$9.25733 + 3.82884I$	0
$u = -1.164130 - 0.651829I$ $a = -0.824760 + 0.479288I$ $b = -0.366986 - 0.021813I$	$9.25733 - 3.82884I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.335180 + 0.045870I$ $a = 0.887390 + 0.167378I$ $b = 0.343460 - 0.122500I$	$6.37524 + 7.37469I$	0
$u = 1.335180 - 0.045870I$ $a = 0.887390 - 0.167378I$ $b = 0.343460 + 0.122500I$	$6.37524 - 7.37469I$	0
$u = -0.790060 + 1.099730I$ $a = 0.950162 + 0.640629I$ $b = 2.25178 + 1.08655I$	$8.9890 - 20.8349I$	0
$u = -0.790060 - 1.099730I$ $a = 0.950162 - 0.640629I$ $b = 2.25178 - 1.08655I$	$8.9890 + 20.8349I$	0
$u = 0.334535 + 1.318430I$ $a = -0.555325 + 0.783450I$ $b = -1.35765 + 1.23647I$	$1.27806 + 12.92240I$	0
$u = 0.334535 - 1.318430I$ $a = -0.555325 - 0.783450I$ $b = -1.35765 - 1.23647I$	$1.27806 - 12.92240I$	0
$u = 0.820487 + 1.128710I$ $a = -0.901461 + 0.609622I$ $b = -2.15815 + 0.99885I$	$8.3665 + 12.1206I$	0
$u = 0.820487 - 1.128710I$ $a = -0.901461 - 0.609622I$ $b = -2.15815 - 0.99885I$	$8.3665 - 12.1206I$	0
$u = -0.84675 + 1.15566I$ $a = 0.606012 + 0.664215I$ $b = 1.28122 + 0.90160I$	$7.63515 - 10.95400I$	0
$u = -0.84675 - 1.15566I$ $a = 0.606012 - 0.664215I$ $b = 1.28122 - 0.90160I$	$7.63515 + 10.95400I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.111264 + 0.500899I$ $a = -1.05084 + 1.84611I$ $b = 0.35212 + 2.83449I$	$5.24999 - 2.60465I$	$6.00000 - 2.19743I$
$u = 0.111264 - 0.500899I$ $a = -1.05084 - 1.84611I$ $b = 0.35212 - 2.83449I$	$5.24999 + 2.60465I$	$6.00000 + 2.19743I$
$u = 0.474765 + 0.159668I$ $a = 0.004254 - 1.231340I$ $b = 0.444753 + 0.198724I$	$-1.47546 - 2.14453I$	$3.64707 + 4.72964I$
$u = 0.474765 - 0.159668I$ $a = 0.004254 + 1.231340I$ $b = 0.444753 - 0.198724I$	$-1.47546 + 2.14453I$	$3.64707 - 4.72964I$
$u = -0.114297 + 0.482770I$ $a = 1.04291 + 1.66251I$ $b = -0.91928 + 3.13674I$	$4.76657 - 5.56271I$	$4.06278 + 7.70334I$
$u = -0.114297 - 0.482770I$ $a = 1.04291 - 1.66251I$ $b = -0.91928 - 3.13674I$	$4.76657 + 5.56271I$	$4.06278 - 7.70334I$
$u = -0.40684 + 1.55903I$ $a = 0.470985 + 0.439308I$ $b = 1.151410 + 0.310739I$	$-0.41217 - 2.02918I$	0
$u = -0.40684 - 1.55903I$ $a = 0.470985 - 0.439308I$ $b = 1.151410 - 0.310739I$	$-0.41217 + 2.02918I$	0
$u = -0.378304$ $a = -1.13027$ $b = -0.295865$	0.787959	13.0920
$u = -0.070585 + 0.282507I$ $a = -2.27120 - 0.63975I$ $b = -0.193003 + 0.277598I$	$0.99613 - 1.75427I$	$5.45625 + 2.95586I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.070585-0.282507I$ $a=-2.27120+0.63975I$ $b=-0.193003-0.277598I$	$0.99613+1.75427I$	$5.45625-2.95586I$
$u=\ \ 0.12680+1.71644I$ $a=\ \ 0.031494+0.627770I$ $b=\ \ 0.129686+0.877646I$	$-0.259477-0.699060I$	0
$u=\ \ 0.12680-1.71644I$ $a=\ \ 0.031494-0.627770I$ $b=\ \ 0.129686-0.877646I$	$-0.259477+0.699060I$	0
$u=\ \ 0.114716+0.148148I$ $a=-3.17357+6.33044I$ $b=\ \ 0.372662+0.887428I$	$3.03081-4.92872I$	$11.64890+6.43093I$
$u=\ \ 0.114716-0.148148I$ $a=-3.17357-6.33044I$ $b=\ \ 0.372662-0.887428I$	$3.03081+4.92872I$	$11.64890-6.43093I$
$u=-0.159647$ $a=\ \ 8.40990$ $b=-1.03854$	6.45009	13.9500
$u=-0.0570760+0.0388787I$ $a=\ \ 19.0279+9.1593I$ $b=-0.328108+0.166954I$	$6.77712-4.78767I$	$-1.20601-5.15256I$
$u=-0.0570760-0.0388787I$ $a=\ \ 19.0279-9.1593I$ $b=-0.328108-0.166954I$	$6.77712+4.78767I$	$-1.20601+5.15256I$

II. $I_2^u = \langle 3.80 \times 10^{21} u^{47} - 3.10 \times 10^{21} u^{46} + \cdots + 8.56 \times 10^{20} b - 1.70 \times 10^{21},\ -7.59 \times 10^{21} u^{47} - 4.07 \times 10^{21} u^{46} + \cdots + 8.56 \times 10^{20} a - 7.94 \times 10^{21},\ u^{48} + 12u^{46} + \cdots - 2u + 1 \rangle$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 8.86831u^{47} + 4.75916u^{46} + \cdots - 7.36450u + 9.28158 \\ -4.43689u^{47} + 3.62509u^{46} + \cdots - 14.0079u + 1.98419 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 15.9248u^{47} + 3.67023u^{46} + \cdots + 3.67256u + 10.4157 \\ 2.61964u^{47} + 2.53616u^{46} + \cdots - 2.97082u + 3.11826 \end{pmatrix}$$

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

$$a_5 = \begin{pmatrix} 12.4438u^{47} - 1.10608u^{46} + \cdots + 20.9145u - 0.511386 \\ 5.88116u^{47} - 6.20079u^{46} + \cdots + 20.9984u - 5.86584 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -3.75936u^{47} + 4.07112u^{46} + \cdots - 23.7560u + 7.16059 \\ -3.65790u^{47} + 5.69221u^{46} + \cdots - 24.3189u + 6.03854 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1.36624u^{47} + 3.97088u^{46} + \cdots - 16.6547u + 11.3553 \\ 5.20258u^{47} + 8.15656u^{46} + \cdots - 28.0795u + 13.9327 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 3.23307u^{47} + 5.57136u^{46} + \cdots - 15.0120u + 7.58740 \\ 5.37963u^{47} + 4.36610u^{46} + \cdots - 16.9256u + 10.0400 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.0673709u^{47} + 6.46832u^{46} + \cdots - 24.0756u + 13.1850 \\ 2.93031u^{47} + 6.25970u^{46} + \cdots - 22.0101u + 9.90766 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -\frac{2118056717433987304441}{855788823662542593863}u^{47} - \frac{32153036038454139355101}{855788823662542593863}u^{46} + \cdots + \frac{858494110036758099533384}{855788823662542593863}u - \frac{559115454761256897074 77}{855788823662542593863}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{48} - 24u^{47} + \cdots - 14u + 1$
c_2	$u^{48} + 12u^{46} + \cdots - 2u + 1$
c_3	$u^{48} - u^{47} + \cdots + u + 1$
c_4	$u^{48} - u^{47} + \cdots + 76u + 101$
c_5	$u^{48} - 15u^{46} + \cdots - 3u + 1$
c_6	$u^{48} + 12u^{46} + \cdots + 2u + 1$
c_7	$u^{48} + 14u^{47} + \cdots + 20u + 1$
c_8	$u^{48} - 12u^{46} + \cdots + 12u + 1$
c_9	$u^{48} - 6u^{47} + \cdots - 31u + 7$
c_{10}	$u^{48} - 15u^{46} + \cdots + 3u + 1$
c_{11}	$u^{48} + 2u^{47} + \cdots - 184u + 23$
c_{12}	$u^{48} - 3u^{47} + \cdots + 7u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{48} + 8y^{47} + \cdots + 38y + 1$
c_2, c_6	$y^{48} + 24y^{47} + \cdots + 14y + 1$
c_3	$y^{48} - 9y^{47} + \cdots + 35y + 1$
c_4	$y^{48} + 33y^{47} + \cdots + 254400y + 10201$
c_5, c_{10}	$y^{48} - 30y^{47} + \cdots - y + 1$
c_7	$y^{48} - 28y^{47} + \cdots - 60y + 1$
c_8	$y^{48} - 24y^{47} + \cdots + 4y + 1$
c_9	$y^{48} - 6y^{47} + \cdots + 1811y + 49$
c_{11}	$y^{48} - 18y^{47} + \cdots - 3358y + 529$
c_{12}	$y^{48} - 11y^{47} + \cdots - 15y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.768720 + 0.658668I$ $a = -0.85436 + 1.22538I$ $b = -0.207561 - 0.287599I$	$7.94591 - 4.70550I$	$10.01183 + 0.I$
$u = \quad 0.768720 - 0.658668I$ $a = -0.85436 - 1.22538I$ $b = -0.207561 + 0.287599I$	$7.94591 + 4.70550I$	$10.01183 + 0.I$
$u = \quad 0.592054 + 0.842866I$ $a = -0.670142 + 1.153250I$ $b = -0.153949 - 0.617247I$	$6.84552 + 1.86789I$	$12.91274 - 5.57378I$
$u = \quad 0.592054 - 0.842866I$ $a = -0.670142 - 1.153250I$ $b = -0.153949 + 0.617247I$	$6.84552 - 1.86789I$	$12.91274 + 5.57378I$
$u = -0.647501 + 0.807459I$ $a = \quad 0.547692 - 0.609867I$ $b = \quad 0.878911 + 0.321354I$	$2.47420 + 0.03027I$	$9.21112 - 0.31734I$
$u = -0.647501 - 0.807459I$ $a = \quad 0.547692 + 0.609867I$ $b = \quad 0.878911 - 0.321354I$	$2.47420 - 0.03027I$	$9.21112 + 0.31734I$
$u = -0.184321 + 0.944423I$ $a = \quad 0.129701 + 0.460212I$ $b = \quad 1.30707 + 0.90507I$	$-2.36018 - 3.86802I$	$1.85868 + 8.52504I$
$u = -0.184321 - 0.944423I$ $a = \quad 0.129701 - 0.460212I$ $b = \quad 1.30707 - 0.90507I$	$-2.36018 + 3.86802I$	$1.85868 - 8.52504I$
$u = -0.773042 + 0.722521I$ $a = -0.981199 - 0.777329I$ $b = -1.73067 + 0.24150I$	$7.19528 + 2.64503I$	$12.87026 - 1.18195I$
$u = -0.773042 - 0.722521I$ $a = -0.981199 + 0.777329I$ $b = -1.73067 - 0.24150I$	$7.19528 - 2.64503I$	$12.87026 + 1.18195I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.062498+0.930441I$ $a=-0.478445-1.246880I$ $b=-0.92247-2.07098I$	$1.37948-5.29295I$	$4.64477+6.73044I$
$u=-0.062498-0.930441I$ $a=-0.478445+1.246880I$ $b=-0.92247+2.07098I$	$1.37948+5.29295I$	$4.64477-6.73044I$
$u=0.675890+0.866670I$ $a=1.20602+0.99108I$ $b=1.55155+0.73661I$	$-1.06972+2.61178I$	$-10.91471+0.I$
$u=0.675890-0.866670I$ $a=1.20602-0.99108I$ $b=1.55155-0.73661I$	$-1.06972-2.61178I$	$-10.91471+0.I$
$u=-0.463322+0.762814I$ $a=-0.541375+0.155817I$ $b=0.018565+0.269826I$	$1.36347-2.88791I$	$13.1320+11.1162I$
$u=-0.463322-0.762814I$ $a=-0.541375-0.155817I$ $b=0.018565-0.269826I$	$1.36347+2.88791I$	$13.1320-11.1162I$
$u=0.655954+0.556885I$ $a=0.658128-1.014860I$ $b=-1.21488-0.81860I$	$5.72643-4.99769I$	$13.6176+4.3699I$
$u=0.655954-0.556885I$ $a=0.658128+1.014860I$ $b=-1.21488+0.81860I$	$5.72643+4.99769I$	$13.6176-4.3699I$
$u=-0.583444+0.982503I$ $a=-0.220299+0.183428I$ $b=-0.691686+0.702720I$	$0.47740-1.34364I$	$6.00000+0.I$
$u=-0.583444-0.982503I$ $a=-0.220299-0.183428I$ $b=-0.691686-0.702720I$	$0.47740+1.34364I$	$6.00000+0.I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.676355+0.925580I$ $a=\ 0.625812-0.422920I$ $b=\ 1.58905-0.00589I$	$2.09028-5.17278I$	$6.00000+5.54812I$
$u=-0.676355-0.925580I$ $a=\ 0.625812+0.422920I$ $b=\ 1.58905+0.00589I$	$2.09028+5.17278I$	$6.00000-5.54812I$
$u=\ 0.618087+0.973465I$ $a=\ 0.686197-0.855033I$ $b=\ 1.71290-1.40724I$	$6.40644+2.90613I$	$12.43364+0.I$
$u=\ 0.618087-0.973465I$ $a=\ 0.686197+0.855033I$ $b=\ 1.71290+1.40724I$	$6.40644-2.90613I$	$12.43364+0.I$
$u=\ 0.178287+0.809758I$ $a=-1.76118-0.24025I$ $b=-2.20807-0.06055I$	$-3.84157+0.79598I$	$10.1665-23.4245I$
$u=\ 0.178287-0.809758I$ $a=-1.76118+0.24025I$ $b=-2.20807+0.06055I$	$-3.84157-0.79598I$	$10.1665+23.4245I$
$u=-0.070016+0.797431I$ $a=-0.16701+1.73537I$ $b=-0.549095-0.210735I$	$1.97068+4.72444I$	$2.09366-4.65455I$
$u=-0.070016-0.797431I$ $a=-0.16701-1.73537I$ $b=-0.549095+0.210735I$	$1.97068-4.72444I$	$2.09366+4.65455I$
$u=-0.729281+0.965492I$ $a=\ 0.672684+0.907257I$ $b=\ 1.41360-0.11972I$	$6.48148-8.33922I$	0
$u=-0.729281-0.965492I$ $a=\ 0.672684-0.907257I$ $b=\ 1.41360+0.11972I$	$6.48148+8.33922I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.689797 + 0.327131I$ $a = 1.40226 - 0.33197I$ $b = 1.32937 + 1.23585I$	$5.59241 + 5.55859I$	$15.6401 - 7.3072I$
$u = 0.689797 - 0.327131I$ $a = 1.40226 + 0.33197I$ $b = 1.32937 - 1.23585I$	$5.59241 - 5.55859I$	$15.6401 + 7.3072I$
$u = 0.717094 + 1.010510I$ $a = 0.990922 - 0.725034I$ $b = 2.28919 - 1.16627I$	$6.91465 + 10.36480I$	0
$u = 0.717094 - 1.010510I$ $a = 0.990922 + 0.725034I$ $b = 2.28919 + 1.16627I$	$6.91465 - 10.36480I$	0
$u = -0.181515 + 0.735638I$ $a = -0.609639 - 0.509663I$ $b = -1.83743 + 0.57394I$	$-1.45198 + 2.22077I$	$7.31020 + 4.25216I$
$u = -0.181515 - 0.735638I$ $a = -0.609639 + 0.509663I$ $b = -1.83743 - 0.57394I$	$-1.45198 - 2.22077I$	$7.31020 - 4.25216I$
$u = 0.676301 + 1.060620I$ $a = -0.586273 + 0.475419I$ $b = -1.09718 + 1.65420I$	$4.21505 + 10.32000I$	0
$u = 0.676301 - 1.060620I$ $a = -0.586273 - 0.475419I$ $b = -1.09718 - 1.65420I$	$4.21505 - 10.32000I$	0
$u = -0.926320 + 0.871238I$ $a = 0.383062 + 0.083152I$ $b = 1.077470 + 0.079513I$	$2.07396 - 4.48128I$	0
$u = -0.926320 - 0.871238I$ $a = 0.383062 - 0.083152I$ $b = 1.077470 - 0.079513I$	$2.07396 + 4.48128I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.410072+0.377267I$ $a=-1.21656-1.80969I$ $b=\ \ 0.75182-1.65353I$	$5.76779-3.13737I$	$15.3337+5.4732I$
$u=-0.410072-0.377267I$ $a=-1.21656+1.80969I$ $b=\ \ 0.75182+1.65353I$	$5.76779+3.13737I$	$15.3337-5.4732I$
$u=\ \ 0.467096+0.303554I$ $a=-2.29826+1.11633I$ $b=-0.1079030-0.0143946I$	$6.96911+5.01754I$	$16.5170-14.9235I$
$u=\ \ 0.467096-0.303554I$ $a=-2.29826-1.11633I$ $b=-0.1079030+0.0143946I$	$6.96911-5.01754I$	$16.5170+14.9235I$
$u=-0.38225+1.53577I$ $a=-0.451867-0.420632I$ $b=-1.089780-0.255948I$	$-0.44126-2.16874I$	0
$u=-0.38225-1.53577I$ $a=-0.451867+0.420632I$ $b=-1.089780+0.255948I$	$-0.44126+2.16874I$	0
$u=\ \ 0.05066+1.69146I$ $a=\ \ 0.034113+0.604818I$ $b=-0.108811+0.774683I$	$-0.347722-0.372058I$	0
$u=\ \ 0.05066-1.69146I$ $a=\ \ 0.034113-0.604818I$ $b=-0.108811-0.774683I$	$-0.347722+0.372058I$	0

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{48}-24u^{47}+\cdots-14u+1)(u^{178}+65u^{177}+\cdots-113u+1)$
c_2	$(u^{48}+12u^{46}+\cdots-2u+1)(u^{178}-u^{177}+\cdots-27u+1)$
c_3	$(u^{48}-u^{47}+\cdots+u+1)(u^{178}+2u^{177}+\cdots+264305u-19304)$
c_4	$(u^{48}-u^{47}+\cdots+76u+101)$ $\cdot(u^{178}+4u^{177}+\cdots-1021989622123u+820796062693)$
c_5	$(u^{48}-15u^{46}+\cdots-3u+1)(u^{178}+u^{177}+\cdots-587u-22)$
c_6	$(u^{48}+12u^{46}+\cdots+2u+1)(u^{178}-u^{177}+\cdots-27u+1)$
c_7	$(u^{48}+14u^{47}+\cdots+20u+1)$ $\cdot(u^{178}-7u^{177}+\cdots-12535015u+2055653)$
c_8	$(u^{48}-12u^{46}+\cdots+12u+1)$ $\cdot(u^{178}-5u^{177}+\cdots-3889465u-320519)$
c_9	$(u^{48}-6u^{47}+\cdots-31u+7)$ $\cdot(u^{178}-13u^{177}+\cdots-562102508u-86410391)$
c_{10}	$(u^{48}-15u^{46}+\cdots+3u+1)(u^{178}+u^{177}+\cdots-587u-22)$
c_{11}	$(u^{48}+2u^{47}+\cdots-184u+23)$ $\cdot(u^{178}+u^{177}+\cdots-235642121u-12599233)$
c_{12}	$(u^{48}-3u^{47}+\cdots+7u+1)(u^{178}+14u^{177}+\cdots+2u+1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{48}+8y^{47}+\cdots+38y+1)(y^{178}+105y^{177}+\cdots+63999y+1)$
c_2, c_6	$(y^{48}+24y^{47}+\cdots+14y+1)(y^{178}+65y^{177}+\cdots-113y+1)$
c_3	$(y^{48}-9y^{47}+\cdots+35y+1)$ $\cdot(y^{178}-36y^{177}+\cdots-39240487121y+372644416)$
c_4	$(y^{48}+33y^{47}+\cdots+254400y+10201)$ $\cdot(y^{178}+106y^{177}+\cdots+2.21\times10^{25}y+6.74\times10^{23})$
c_5, c_{10}	$(y^{48}-30y^{47}+\cdots-y+1)(y^{178}-129y^{177}+\cdots+282299y+484)$
c_7	$(y^{48}-28y^{47}+\cdots-60y+1)$ $\cdot(y^{178}-71y^{177}+\cdots-350661278205151y+4225709256409)$
c_8	$(y^{48}-24y^{47}+\cdots+4y+1)$ $\cdot(y^{178}-55y^{177}+\cdots-10252412577651y+102732429361)$
c_9	$(y^{48}-6y^{47}+\cdots+1811y+49)$ $\cdot(y^{178}+55y^{177}+\cdots-886494592097220180y+7466755672772881)$
c_{11}	$(y^{48}-18y^{47}+\cdots-3358y+529)$ $\cdot(y^{178}-73y^{177}+\cdots-10158224326040469y+158740672188289)$
c_{12}	$(y^{48}-11y^{47}+\cdots-15y+1)(y^{178}-30y^{177}+\cdots-146y+1)$