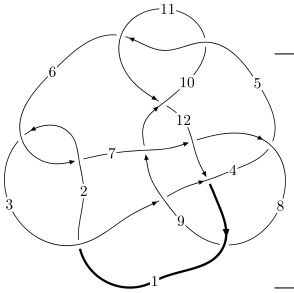
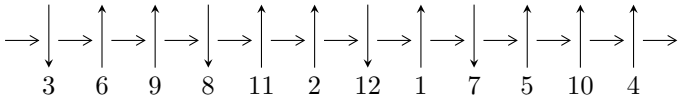
$12a_{0364}$ $(K12a_{0364})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 3.06101 \times 10^{668} u^{182} + 1.45399 \times 10^{669} u^{181} + \cdots + 3.50750 \times 10^{668} b + 1.63631 \times 10^{672}, \\ & - 4.31223 \times 10^{671} u^{182} + 1.20316 \times 10^{672} u^{181} + \cdots + 3.97400 \times 10^{671} a + 1.18875 \times 10^{675}, \\ & u^{183} + u^{182} + \cdots + 4256u + 1133 \rangle \\ I_2^u = \langle & 24823104u^{41} - 19103471u^{40} + \cdots + 3944339b - 19426104, \\ & 10847937u^{41} - 23370443u^{40} + \cdots + 3944339a + 1833879,\ u^{42} + 11u^{40} + \cdots - u + 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 225 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. $\boldsymbol{I_1^u = \langle 3.06 \times 10^{668} u^{182} + 1.45 \times 10^{669} u^{181} + \cdots + 3.51 \times 10^{668} b + 1.64 \times 10^{672},\ -4.31 \times 10^{671} u^{182} + 1.20 \times 10^{672} u^{181} + \cdots + 3.97 \times 10^{671} a + 1.19 \times 10^{675},\ u^{183} + u^{182} + \cdots + 4256u + 1133 \rangle}$

(i) Arc colorings

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

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

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

$$a_9 = \begin{pmatrix} 1.08511u^{182} - 3.02757u^{181} + \cdots - 7046.61u - 2991.31 \\ -0.872703u^{182} - 4.14537u^{181} + \cdots - 13315.2u - 4665.18 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 1.12129u^{182} + 0.925627u^{181} + \cdots + 4093.75u + 1132.16 \\ 1.05786u^{182} + 1.82765u^{181} + \cdots + 6881.98u + 2201.09 \end{pmatrix}$$

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

$$a_{10} = \begin{pmatrix} -0.139695u^{182} - 1.77491u^{181} + \cdots - 5689.73u - 2039.58 \\ -2.09751u^{182} - 2.89272u^{181} + \cdots - 11958.4u - 3713.44 \end{pmatrix}$$

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

$$a_8 = \begin{pmatrix} -0.320040u^{182} - 2.23656u^{181} + \cdots - 7280.85u - 2535.00 \\ -1.70018u^{182} - 2.74137u^{181} + \cdots - 10716.3u - 3390.53 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.323583u^{182} - 0.355194u^{181} + \cdots - 1218.60u - 260.576 \\ -2.31378u^{182} - 1.07817u^{181} + \cdots - 5843.16u - 1298.01 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.0734871u^{182} + 2.24058u^{181} + \cdots + 6864.55u + 2639.36 \\ -3.39552u^{182} + 1.13443u^{181} + \cdots - 496.042u + 1175.34 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1.99923u^{182} + 1.23701u^{181} + \cdots + 6552.84u + 1660.68 \\ 1.79503u^{182} - 4.25068u^{181} + \cdots - 10911.1u - 4668.15 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 1.45862u^{182} + 0.408690u^{181} + \cdots + 1561.89u + 128.705$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{183} + 77u^{182} + \cdots - 46277120u - 1283689$
c_2, c_6	$u^{183} - u^{182} + \cdots + 4256u - 1133$
c_3	$u^{183} + u^{182} + \cdots + 31u - 3$
c_4	$u^{183} + 3u^{182} + \cdots + 555350u - 53533$
c_5, c_{10}	$u^{183} + u^{182} + \cdots - 173u - 59$
c_7	$u^{183} - 2u^{182} + \cdots + 334697u - 27379$
c_8	$u^{183} - 5u^{182} + \cdots - 6926u - 485$
c_9	$u^{183} + 7u^{182} + \cdots + 1157925u - 194803$
c_{11}	$u^{183} - 87u^{182} + \cdots + 82911u - 3481$
c_{12}	$u^{183} + 16u^{182} + \cdots - 199u - 7$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{183} + 65y^{182} + \cdots - 180776219221564y - 1647857448721$
c_2, c_6	$y^{183} + 77y^{182} + \cdots - 46277120y - 1283689$
c_3	$y^{183} - 17y^{182} + \cdots + 67y - 9$
c_4	$y^{183} + 11y^{182} + \cdots - 122436449664y - 2865782089$
c_5, c_{10}	$y^{183} - 87y^{182} + \cdots + 82911y - 3481$
c_7	$y^{183} - 28y^{182} + \cdots - 2771494231y - 749609641$
c_8	$y^{183} - 29y^{182} + \cdots - 40132714y - 235225$
c_9	$y^{183} - 11y^{182} + \cdots - 18463850066073y - 37948208809$
c_{11}	$y^{183} + 33y^{182} + \cdots + 364826579y - 12117361$
c_{12}	$y^{183} + 10y^{182} + \cdots - 2819y - 49$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.002506 + 1.001090I$ $a = -0.301136 + 1.067720I$ $b = 0.015541 + 0.450831I$	$-2.35185 - 1.36074I$	0
$u = 0.002506 - 1.001090I$ $a = -0.301136 - 1.067720I$ $b = 0.015541 - 0.450831I$	$-2.35185 + 1.36074I$	0
$u = 0.657408 + 0.760366I$ $a = 0.640158 - 0.397181I$ $b = -0.0807366 + 0.0498924I$	$3.94780 - 1.03684I$	0
$u = 0.657408 - 0.760366I$ $a = 0.640158 + 0.397181I$ $b = -0.0807366 - 0.0498924I$	$3.94780 + 1.03684I$	0
$u = -0.907481 + 0.395088I$ $a = -0.975120 - 0.368474I$ $b = -0.023349 - 0.616263I$	$1.78380 + 1.10430I$	0
$u = -0.907481 - 0.395088I$ $a = -0.975120 + 0.368474I$ $b = -0.023349 + 0.616263I$	$1.78380 - 1.10430I$	0
$u = -0.346743 + 0.922544I$ $a = -1.94060 + 0.03413I$ $b = -2.05091 - 0.63156I$	$-2.22716 + 1.66256I$	0
$u = -0.346743 - 0.922544I$ $a = -1.94060 - 0.03413I$ $b = -2.05091 + 0.63156I$	$-2.22716 - 1.66256I$	0
$u = -0.832406 + 0.580904I$ $a = -0.816072 - 1.107820I$ $b = 0.21102 - 1.46237I$	$5.69571 + 6.18009I$	0
$u = -0.832406 - 0.580904I$ $a = -0.816072 + 1.107820I$ $b = 0.21102 + 1.46237I$	$5.69571 - 6.18009I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.445854 + 0.912506I$ $a = -0.250178 + 0.647036I$ $b = 0.582212 - 0.638228I$	$-4.07840 + 1.74509I$	0
$u = 0.445854 - 0.912506I$ $a = -0.250178 - 0.647036I$ $b = 0.582212 + 0.638228I$	$-4.07840 - 1.74509I$	0
$u = -0.550473 + 0.855625I$ $a = 1.58869 + 0.29474I$ $b = 1.47188 + 2.18116I$	$3.11251 - 0.85633I$	0
$u = -0.550473 - 0.855625I$ $a = 1.58869 - 0.29474I$ $b = 1.47188 - 2.18116I$	$3.11251 + 0.85633I$	0
$u = -0.550724 + 0.859621I$ $a = -1.54212 - 1.93111I$ $b = 0.40476 - 1.59933I$	$3.09891 - 3.55549I$	0
$u = -0.550724 - 0.859621I$ $a = -1.54212 + 1.93111I$ $b = 0.40476 + 1.59933I$	$3.09891 + 3.55549I$	0
$u = 0.539399 + 0.794949I$ $a = 1.32069 - 1.68704I$ $b = 1.17697 - 2.20251I$	$6.50793 + 1.54821I$	0
$u = 0.539399 - 0.794949I$ $a = 1.32069 + 1.68704I$ $b = 1.17697 + 2.20251I$	$6.50793 - 1.54821I$	0
$u = -0.100235 + 1.035900I$ $a = 0.418216 + 0.328869I$ $b = -0.218597 - 1.065900I$	$-6.21715 - 0.49274I$	0
$u = -0.100235 - 1.035900I$ $a = 0.418216 - 0.328869I$ $b = -0.218597 + 1.065900I$	$-6.21715 + 0.49274I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.747476 + 0.729954I$ $a = -1.42324 + 0.66409I$ $b = -0.32911 + 2.22620I$	$2.50612 - 1.04846I$	0
$u = 0.747476 - 0.729954I$ $a = -1.42324 - 0.66409I$ $b = -0.32911 - 2.22620I$	$2.50612 + 1.04846I$	0
$u = -0.557270 + 0.773086I$ $a = 2.28692 + 1.27034I$ $b = 1.14776 + 1.11615I$	$-0.232614 + 0.596001I$	0
$u = -0.557270 - 0.773086I$ $a = 2.28692 - 1.27034I$ $b = 1.14776 - 1.11615I$	$-0.232614 - 0.596001I$	0
$u = 0.627455 + 0.716670I$ $a = -2.33890 + 0.93316I$ $b = -0.807083 + 1.028980I$	$2.26284 - 6.40383I$	0
$u = 0.627455 - 0.716670I$ $a = -2.33890 - 0.93316I$ $b = -0.807083 - 1.028980I$	$2.26284 + 6.40383I$	0
$u = 0.728434 + 0.611027I$ $a = 1.24633 - 0.73003I$ $b = 0.482467 - 1.183330I$	$7.15615 + 1.84565I$	0
$u = 0.728434 - 0.611027I$ $a = 1.24633 + 0.73003I$ $b = 0.482467 + 1.183330I$	$7.15615 - 1.84565I$	0
$u = 0.433567 + 0.963298I$ $a = 1.84915 - 0.03503I$ $b = 1.84761 - 1.03237I$	$-3.99443 + 3.51059I$	0
$u = 0.433567 - 0.963298I$ $a = 1.84915 + 0.03503I$ $b = 1.84761 + 1.03237I$	$-3.99443 - 3.51059I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.931814 + 0.508864I$ $a = 0.913621 - 1.050700I$ $b = -0.474141 - 1.264530I$	$-0.02127 - 9.16097I$	0
$u = 0.931814 - 0.508864I$ $a = 0.913621 + 1.050700I$ $b = -0.474141 + 1.264530I$	$-0.02127 + 9.16097I$	0
$u = -0.986706 + 0.407027I$ $a = 0.636220 + 0.399246I$ $b = -0.065403 + 0.890735I$	$4.94639 + 5.58121I$	0
$u = -0.986706 - 0.407027I$ $a = 0.636220 - 0.399246I$ $b = -0.065403 - 0.890735I$	$4.94639 - 5.58121I$	0
$u = -0.654680 + 0.844531I$ $a = -1.20925 + 0.95465I$ $b = -1.196920 + 0.684125I$	$0.61558 - 2.54624I$	0
$u = -0.654680 - 0.844531I$ $a = -1.20925 - 0.95465I$ $b = -1.196920 - 0.684125I$	$0.61558 + 2.54624I$	0
$u = 0.731449 + 0.571623I$ $a = -1.53574 + 1.48199I$ $b = 0.37856 + 1.76760I$	$-0.37741 - 5.71633I$	0
$u = 0.731449 - 0.571623I$ $a = -1.53574 - 1.48199I$ $b = 0.37856 - 1.76760I$	$-0.37741 + 5.71633I$	0
$u = -0.516145 + 0.771156I$ $a = 0.952646 + 0.811885I$ $b = -0.324158 - 0.327902I$	$-0.53621 + 2.32801I$	0
$u = -0.516145 - 0.771156I$ $a = 0.952646 - 0.811885I$ $b = -0.324158 + 0.327902I$	$-0.53621 - 2.32801I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.926464 + 0.046019I$ $a = -0.367772 - 0.284571I$ $b = -0.358099 - 0.222420I$	$3.54138 + 2.83842I$	0
$u = 0.926464 - 0.046019I$ $a = -0.367772 + 0.284571I$ $b = -0.358099 + 0.222420I$	$3.54138 - 2.83842I$	0
$u = 0.012896 + 1.073490I$ $a = -0.737068 - 0.531654I$ $b = -0.405083 + 0.417015I$	$-0.32963 + 5.18055I$	0
$u = 0.012896 - 1.073490I$ $a = -0.737068 + 0.531654I$ $b = -0.405083 - 0.417015I$	$-0.32963 - 5.18055I$	0
$u = -0.568689 + 0.915928I$ $a = -0.82583 - 1.67184I$ $b = -0.74892 - 2.67127I$	$-0.69467 - 5.11406I$	0
$u = -0.568689 - 0.915928I$ $a = -0.82583 + 1.67184I$ $b = -0.74892 + 2.67127I$	$-0.69467 + 5.11406I$	0
$u = 0.619160 + 0.882815I$ $a = -0.462784 - 0.132943I$ $b = -1.094350 + 0.862174I$	$3.61626 + 6.02592I$	0
$u = 0.619160 - 0.882815I$ $a = -0.462784 + 0.132943I$ $b = -1.094350 - 0.862174I$	$3.61626 - 6.02592I$	0
$u = -0.543038 + 0.933500I$ $a = 0.257256 + 0.203403I$ $b = -0.434241 - 0.990715I$	$-1.09057 - 6.62662I$	0
$u = -0.543038 - 0.933500I$ $a = 0.257256 - 0.203403I$ $b = -0.434241 + 0.990715I$	$-1.09057 + 6.62662I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.707658+0.818823I$ $a=\ \ 1.55822+0.50718I$ $b=\ \ 0.78450+2.51756I$	$3.25753+4.56073I$	0
$u=-0.707658-0.818823I$ $a=\ \ 1.55822-0.50718I$ $b=\ \ 0.78450-2.51756I$	$3.25753-4.56073I$	0
$u=\ \ 0.757720+0.507649I$ $a=-0.865308+0.335743I$ $b=-0.357419+1.226330I$	$2.79108-2.17795I$	0
$u=\ \ 0.757720-0.507649I$ $a=-0.865308-0.335743I$ $b=-0.357419-1.226330I$	$2.79108+2.17795I$	0
$u=-0.765290+0.777732I$ $a=\ \ 0.313788-0.283363I$ $b=\ \ 0.764073+0.447255I$	$1.24383-2.75337I$	0
$u=-0.765290-0.777732I$ $a=\ \ 0.313788+0.283363I$ $b=\ \ 0.764073-0.447255I$	$1.24383+2.75337I$	0
$u=-0.642154+0.885034I$ $a=-0.605908-0.137387I$ $b=-0.1325530-0.0361140I$	$0.97256-2.56913I$	0
$u=-0.642154-0.885034I$ $a=-0.605908+0.137387I$ $b=-0.1325530+0.0361140I$	$0.97256+2.56913I$	0
$u=\ \ 0.595783+0.918335I$ $a=-1.67611+1.20857I$ $b=-1.09082+1.56018I$	$6.04330+2.97947I$	0
$u=\ \ 0.595783-0.918335I$ $a=-1.67611-1.20857I$ $b=-1.09082-1.56018I$	$6.04330-2.97947I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.029805 + 1.094630I$ $a = -0.088335 + 0.419086I$ $b = 0.622284 - 0.818090I$	$-5.69385 - 4.53725I$	0
$u = 0.029805 - 1.094630I$ $a = -0.088335 - 0.419086I$ $b = 0.622284 + 0.818090I$	$-5.69385 + 4.53725I$	0
$u = 0.720237 + 0.833458I$ $a = -0.323093 - 0.535044I$ $b = -0.886760 + 0.556851I$	$3.94229 - 0.87080I$	0
$u = 0.720237 - 0.833458I$ $a = -0.323093 + 0.535044I$ $b = -0.886760 - 0.556851I$	$3.94229 + 0.87080I$	0
$u = 0.754844 + 0.804416I$ $a = -0.315687 + 0.638489I$ $b = -0.019468 + 1.338820I$	$4.36353 - 0.84859I$	0
$u = 0.754844 - 0.804416I$ $a = -0.315687 - 0.638489I$ $b = -0.019468 - 1.338820I$	$4.36353 + 0.84859I$	0
$u = -0.782981 + 0.783214I$ $a = -1.076580 + 0.514922I$ $b = -0.976505 - 0.481147I$	$0.11595 - 4.26403I$	0
$u = -0.782981 - 0.783214I$ $a = -1.076580 - 0.514922I$ $b = -0.976505 + 0.481147I$	$0.11595 + 4.26403I$	0
$u = -0.348230 + 0.819536I$ $a = -1.22288 - 1.43888I$ $b = -1.72181 - 1.72458I$	$-2.13854 + 0.82162I$	0
$u = -0.348230 - 0.819536I$ $a = -1.22288 + 1.43888I$ $b = -1.72181 + 1.72458I$	$-2.13854 - 0.82162I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.972199+0.546222I$ $a=-0.905079-1.011520I$ $b=\ \ 0.59293-1.36816I$	$2.2484+14.7363I$	0
$u=-0.972199-0.546222I$ $a=-0.905079+1.011520I$ $b=\ \ 0.59293+1.36816I$	$2.2484-14.7363I$	0
$u=-0.926293+0.626932I$ $a=\ \ 0.718099+0.500561I$ $b=-0.068622+1.369810I$	$5.25177-0.84623I$	0
$u=-0.926293-0.626932I$ $a=\ \ 0.718099-0.500561I$ $b=-0.068622-1.369810I$	$5.25177+0.84623I$	0
$u=-0.644364+0.601015I$ $a=\ \ 1.27594+1.84739I$ $b=-0.24025+1.69818I$	$-1.74748+0.50069I$	0
$u=-0.644364-0.601015I$ $a=\ \ 1.27594-1.84739I$ $b=-0.24025-1.69818I$	$-1.74748-0.50069I$	0
$u=\ \ 1.005530+0.493859I$ $a=\ \ 0.855579-0.487436I$ $b=-0.221917-0.783760I$	$3.95772-6.48113I$	0
$u=\ \ 1.005530-0.493859I$ $a=\ \ 0.855579+0.487436I$ $b=-0.221917+0.783760I$	$3.95772+6.48113I$	0
$u=-0.680848+0.895509I$ $a=-2.02301-1.39181I$ $b=\ \ 0.08403-2.24040I$	$3.01635-9.89154I$	0
$u=-0.680848-0.895509I$ $a=-2.02301+1.39181I$ $b=\ \ 0.08403+2.24040I$	$3.01635+9.89154I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.293861 + 1.092740I$ $a = 0.275776 + 0.887136I$ $b = 1.057290 - 0.147130I$	$-5.37966 + 0.54573I$	0
$u = 0.293861 - 1.092740I$ $a = 0.275776 - 0.887136I$ $b = 1.057290 + 0.147130I$	$-5.37966 - 0.54573I$	0
$u = 0.614405 + 0.950872I$ $a = 0.69550 - 1.46015I$ $b = 0.47805 - 2.61113I$	$1.54033 + 11.29370I$	0
$u = 0.614405 - 0.950872I$ $a = 0.69550 + 1.46015I$ $b = 0.47805 + 2.61113I$	$1.54033 - 11.29370I$	0
$u = -0.406869 + 0.762225I$ $a = 0.517813 - 0.465383I$ $b = 1.46685 + 0.25108I$	$2.26522 - 2.73823I$	0
$u = -0.406869 - 0.762225I$ $a = 0.517813 + 0.465383I$ $b = 1.46685 - 0.25108I$	$2.26522 + 2.73823I$	0
$u = 0.706734 + 0.897618I$ $a = 0.565162 - 0.517095I$ $b = -0.477838 - 0.337322I$	$3.72711 + 6.31023I$	0
$u = 0.706734 - 0.897618I$ $a = 0.565162 + 0.517095I$ $b = -0.477838 + 0.337322I$	$3.72711 - 6.31023I$	0
$u = -0.602287 + 0.971494I$ $a = -1.48413 - 0.29604I$ $b = -0.82135 - 1.38664I$	$1.18792 - 4.46977I$	0
$u = -0.602287 - 0.971494I$ $a = -1.48413 + 0.29604I$ $b = -0.82135 + 1.38664I$	$1.18792 + 4.46977I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.440159 + 0.730665I$ $a = -1.49175 + 0.11182I$ $b = -1.44488 + 1.55039I$	$2.20716 - 2.85779I$	0
$u = 0.440159 - 0.730665I$ $a = -1.49175 - 0.11182I$ $b = -1.44488 - 1.55039I$	$2.20716 + 2.85779I$	0
$u = -0.066321 + 1.145210I$ $a = -0.173277 + 1.057000I$ $b = -0.366641 + 0.617366I$	$-2.18553 - 1.55193I$	0
$u = -0.066321 - 1.145210I$ $a = -0.173277 - 1.057000I$ $b = -0.366641 - 0.617366I$	$-2.18553 + 1.55193I$	0
$u = 0.571600 + 0.996567I$ $a = 1.28701 - 1.25303I$ $b = 0.21402 - 1.44820I$	$1.09499 + 7.05040I$	0
$u = 0.571600 - 0.996567I$ $a = 1.28701 + 1.25303I$ $b = 0.21402 + 1.44820I$	$1.09499 - 7.05040I$	0
$u = 0.182935 + 0.825630I$ $a = 1.09557 - 1.16253I$ $b = 1.94970 - 1.15239I$	$-1.04922 - 6.70990I$	0
$u = 0.182935 - 0.825630I$ $a = 1.09557 + 1.16253I$ $b = 1.94970 + 1.15239I$	$-1.04922 + 6.70990I$	0
$u = 0.734748 + 0.893581I$ $a = 1.40870 - 0.16123I$ $b = 0.685157 - 0.691738I$	$4.09264 + 6.47599I$	0
$u = 0.734748 - 0.893581I$ $a = 1.40870 + 0.16123I$ $b = 0.685157 + 0.691738I$	$4.09264 - 6.47599I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.425821+0.724945I$ $a=\ \ 1.61129+0.01796I$ $b=\ \ 0.401842+1.054020I$	$2.22001-0.03158I$	0
$u=-0.425821-0.724945I$ $a=\ \ 1.61129-0.01796I$ $b=\ \ 0.401842-1.054020I$	$2.22001+0.03158I$	0
$u=-0.500021+1.055210I$ $a=\ \ 1.46816+0.96083I$ $b=\ \ 1.60403+1.24379I$	$-3.47825-4.06656I$	0
$u=-0.500021-1.055210I$ $a=\ \ 1.46816-0.96083I$ $b=\ \ 1.60403-1.24379I$	$-3.47825+4.06656I$	0
$u=\ \ 0.536497+1.041030I$ $a=\ \ 1.80577-0.29656I$ $b=\ \ 1.50259-1.80856I$	$-3.77068+6.27330I$	0
$u=\ \ 0.536497-1.041030I$ $a=\ \ 1.80577+0.29656I$ $b=\ \ 1.50259+1.80856I$	$-3.77068-6.27330I$	0
$u=-0.625977+1.008080I$ $a=-2.27038-0.60756I$ $b=-2.14868-1.97553I$	$-2.94141-5.50909I$	0
$u=-0.625977-1.008080I$ $a=-2.27038+0.60756I$ $b=-2.14868+1.97553I$	$-2.94141+5.50909I$	0
$u=-0.256991+1.163570I$ $a=-0.366759+0.971787I$ $b=-1.229430+0.181151I$	$-3.93847+4.09185I$	0
$u=-0.256991-1.163570I$ $a=-0.366759-0.971787I$ $b=-1.229430-0.181151I$	$-3.93847-4.09185I$	0

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$0.754021+0.287387I$		
$a=$	$1.07649-1.18000I$	$-1.74947-5.45439I$	0
$b=$	$0.034614-0.751200I$		
$u=$	$0.754021-0.287387I$		
$a=$	$1.07649+1.18000I$	$-1.74947+5.45439I$	0
$b=$	$0.034614+0.751200I$		
$u=$	$0.693187+0.972666I$		
$a=$	$1.92085-1.00783I$	$1.76365+6.53880I$	0
$b=$	$0.55058-2.22183I$		
$u=$	$0.693187-0.972666I$		
$a=$	$1.92085+1.00783I$	$1.76365-6.53880I$	0
$b=$	$0.55058+2.22183I$		
$u=$	$0.581428+1.048690I$		
$a=$	$-0.98044+1.14657I$	$5.82744+3.18112I$	0
$b=$	$-0.80086+1.75516I$		
$u=$	$0.581428-1.048690I$		
$a=$	$-0.98044-1.14657I$	$5.82744-3.18112I$	0
$b=$	$-0.80086-1.75516I$		
$u=$	$-0.564537+1.063780I$		
$a=$	$-1.82335-0.39956I$	$-1.86512-11.45180I$	0
$b=$	$-1.37094-2.09985I$		
$u=$	$-0.564537-1.063780I$		
$a=$	$-1.82335+0.39956I$	$-1.86512+11.45180I$	0
$b=$	$-1.37094+2.09985I$		
$u=$	$0.174384+1.208110I$		
$a=$	$0.524593+0.137775I$	$-6.60576-2.51542I$	0
$b=$	$0.320091+1.012060I$		
$u=$	$0.174384-1.208110I$		
$a=$	$0.524593-0.137775I$	$-6.60576+2.51542I$	0
$b=$	$0.320091-1.012060I$		

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.651991 + 1.036130I$ $a = 2.17446 - 0.68534I$ $b = 1.90939 - 2.32363I$	$-1.74039 + 11.02230I$	0
$u = 0.651991 - 1.036130I$ $a = 2.17446 + 0.68534I$ $b = 1.90939 + 2.32363I$	$-1.74039 - 11.02230I$	0
$u = -1.120770 + 0.511977I$ $a = 0.218490 - 0.312685I$ $b = 0.508258 + 0.256981I$	$-0.07891 - 3.60178I$	0
$u = -1.120770 - 0.511977I$ $a = 0.218490 + 0.312685I$ $b = 0.508258 - 0.256981I$	$-0.07891 + 3.60178I$	0
$u = 0.568498 + 1.094660I$ $a = -1.57377 + 0.76408I$ $b = -1.70332 + 1.39301I$	$-4.01703 + 10.33240I$	0
$u = 0.568498 - 1.094660I$ $a = -1.57377 - 0.76408I$ $b = -1.70332 - 1.39301I$	$-4.01703 - 10.33240I$	0
$u = -0.286438 + 1.203250I$ $a = -0.463832 + 0.372551I$ $b = -0.391616 + 1.153900I$	$-4.85145 - 3.50894I$	0
$u = -0.286438 - 1.203250I$ $a = -0.463832 - 0.372551I$ $b = -0.391616 - 1.153900I$	$-4.85145 + 3.50894I$	0
$u = 1.201630 + 0.366700I$ $a = -0.227274 - 0.364806I$ $b = -0.398790 + 0.251327I$	$1.21805 + 8.43185I$	0
$u = 1.201630 - 0.366700I$ $a = -0.227274 + 0.364806I$ $b = -0.398790 - 0.251327I$	$1.21805 - 8.43185I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.163361 + 0.722347I$ $a = 0.17044 + 1.68096I$ $b = 0.554933 - 0.439499I$	$-3.60569 + 0.91408I$	0
$u = 0.163361 - 0.722347I$ $a = 0.17044 - 1.68096I$ $b = 0.554933 + 0.439499I$	$-3.60569 - 0.91408I$	0
$u = 0.887416 + 0.897545I$ $a = 0.876365 + 0.557933I$ $b = 1.185220 - 0.447285I$	$0.484505 + 0.801877I$	0
$u = 0.887416 - 0.897545I$ $a = 0.876365 - 0.557933I$ $b = 1.185220 + 0.447285I$	$0.484505 - 0.801877I$	0
$u = -0.679377 + 1.064960I$ $a = 1.75357 + 0.61628I$ $b = 1.44551 + 1.61863I$	$4.22031 - 11.83660I$	0
$u = -0.679377 - 1.064960I$ $a = 1.75357 - 0.61628I$ $b = 1.44551 - 1.61863I$	$4.22031 + 11.83660I$	0
$u = 0.614405 + 1.108390I$ $a = 1.15925 - 0.81638I$ $b = 0.64869 - 1.31796I$	$0.95377 + 7.38140I$	0
$u = 0.614405 - 1.108390I$ $a = 1.15925 + 0.81638I$ $b = 0.64869 + 1.31796I$	$0.95377 - 7.38140I$	0
$u = -0.048543 + 1.286710I$ $a = 0.179118 - 0.247357I$ $b = -0.188381 + 0.663010I$	$-6.90319 - 6.80569I$	0
$u = -0.048543 - 1.286710I$ $a = 0.179118 + 0.247357I$ $b = -0.188381 - 0.663010I$	$-6.90319 + 6.80569I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.741752+1.062770I$ $a=-0.638047+0.391667I$ $b=-1.080460+0.126837I$	$-0.73666-1.74573I$	0
$u=-0.741752-1.062770I$ $a=-0.638047-0.391667I$ $b=-1.080460-0.126837I$	$-0.73666+1.74573I$	0
$u=-0.743358+1.068010I$ $a=-1.40354-0.56029I$ $b=-0.73904-1.54332I$	$3.89033-5.27299I$	0
$u=-0.743358-1.068010I$ $a=-1.40354+0.56029I$ $b=-0.73904+1.54332I$	$3.89033+5.27299I$	0
$u=-0.685622+0.062792I$ $a=-1.26008-1.09590I$ $b=-0.266208-0.336374I$	$-0.922578+0.048130I$	0
$u=-0.685622-0.062792I$ $a=-1.26008+1.09590I$ $b=-0.266208+0.336374I$	$-0.922578-0.048130I$	0
$u=\ 0.169187+0.659747I$ $a=-1.92803+1.62798I$ $b=-0.028611+1.086390I$	$-1.92712-2.23063I$	0
$u=\ 0.169187-0.659747I$ $a=-1.92803-1.62798I$ $b=-0.028611-1.086390I$	$-1.92712+2.23063I$	0
$u=\ 0.691667+1.124390I$ $a=-1.68925+0.55794I$ $b=-1.61313+1.80059I$	$-1.9117+15.1089I$	0
$u=\ 0.691667-1.124390I$ $a=-1.68925-0.55794I$ $b=-1.61313-1.80059I$	$-1.9117-15.1089I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.113932 + 1.315720I$ $a = -0.035196 - 0.297355I$ $b = 0.389075 + 0.552433I$	$-5.23347 + 12.43860I$	0
$u = 0.113932 - 1.315720I$ $a = -0.035196 + 0.297355I$ $b = 0.389075 - 0.552433I$	$-5.23347 - 12.43860I$	0
$u = -0.663157 + 1.153060I$ $a = 0.962363 + 0.608426I$ $b = 0.96558 + 1.50778I$	$-0.47354 - 6.87486I$	0
$u = -0.663157 - 1.153060I$ $a = 0.962363 - 0.608426I$ $b = 0.96558 - 1.50778I$	$-0.47354 + 6.87486I$	0
$u = -0.468880 + 1.250480I$ $a = 0.507304 + 0.343123I$ $b = 0.680719 + 0.729966I$	$-3.49916 - 2.93925I$	0
$u = -0.468880 - 1.250480I$ $a = 0.507304 - 0.343123I$ $b = 0.680719 - 0.729966I$	$-3.49916 + 2.93925I$	0
$u = -0.719720 + 1.129520I$ $a = 1.70723 + 0.52583I$ $b = 1.57114 + 1.91853I$	$0.4317 - 20.9045I$	0
$u = -0.719720 - 1.129520I$ $a = 1.70723 - 0.52583I$ $b = 1.57114 - 1.91853I$	$0.4317 + 20.9045I$	0
$u = 0.838840 + 1.052250I$ $a = 0.695315 + 0.500346I$ $b = 1.317710 - 0.059726I$	$0.00586 + 5.83011I$	0
$u = 0.838840 - 1.052250I$ $a = 0.695315 - 0.500346I$ $b = 1.317710 + 0.059726I$	$0.00586 - 5.83011I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.679859+1.168940I$ $a=-1.166050-0.597194I$ $b=-0.88191-1.39736I$	$2.63445-11.59730I$	0
$u=-0.679859-1.168940I$ $a=-1.166050+0.597194I$ $b=-0.88191+1.39736I$	$2.63445+11.59730I$	0
$u=0.715483+1.150510I$ $a=-1.074610+0.526236I$ $b=-1.05007+1.58204I$	$1.93145+12.69900I$	0
$u=0.715483-1.150510I$ $a=-1.074610-0.526236I$ $b=-1.05007-1.58204I$	$1.93145-12.69900I$	0
$u=0.356069+1.313130I$ $a=-0.441378+0.312510I$ $b=-0.670233+0.413618I$	$-3.00371-2.12483I$	0
$u=0.356069-1.313130I$ $a=-0.441378-0.312510I$ $b=-0.670233-0.413618I$	$-3.00371+2.12483I$	0
$u=-0.461444+0.430420I$ $a=0.872894-0.243124I$ $b=-0.092223+0.808916I$	$2.31438-0.06014I$	0
$u=-0.461444-0.430420I$ $a=0.872894+0.243124I$ $b=-0.092223-0.808916I$	$2.31438+0.06014I$	0
$u=-0.245412+0.547747I$ $a=3.24858+1.25026I$ $b=0.098916+1.285710I$	$0.09375+7.04987I$	$0.-7.90849I$
$u=-0.245412-0.547747I$ $a=3.24858-1.25026I$ $b=0.098916-1.285710I$	$0.09375-7.04987I$	$0.+7.90849I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.536888+0.260481I$ $a=\ \ 2.04301-0.26542I$ $b=-0.482652+1.129620I$	$0.06937+6.93748I$	$4.00000-6.68296I$
$u=-0.536888-0.260481I$ $a=\ \ 2.04301+0.26542I$ $b=-0.482652-1.129620I$	$0.06937-6.93748I$	$4.00000+6.68296I$
$u=\ \ 0.06137+1.44383I$ $a=-0.077666+0.257321I$ $b=-0.156272-0.130436I$	$-2.13345+1.87687I$	0
$u=\ \ 0.06137-1.44383I$ $a=-0.077666-0.257321I$ $b=-0.156272+0.130436I$	$-2.13345-1.87687I$	0
$u=\ \ 0.450150+0.260377I$ $a=-1.99999+0.36343I$ $b=\ \ 0.508367+0.934477I$	$-1.94064-2.06419I$	$-0.46983+2.36152I$
$u=\ \ 0.450150-0.260377I$ $a=-1.99999-0.36343I$ $b=\ \ 0.508367-0.934477I$	$-1.94064+2.06419I$	$-0.46983-2.36152I$
$u=-0.305881+0.404271I$ $a=-1.22384+2.52004I$ $b=-0.976394+0.446525I$	$-0.86266-4.29940I$	$4.39227+7.53740I$
$u=-0.305881-0.404271I$ $a=-1.22384-2.52004I$ $b=-0.976394-0.446525I$	$-0.86266+4.29940I$	$4.39227-7.53740I$
$u=-0.464626$ $a=-0.745919$ $b=-0.383953$	0.878667	11.1150
$u=-0.20168+1.53495I$ $a=\ \ 0.035560+0.170255I$ $b=\ \ 0.055628+0.623909I$	$-3.99142-2.96540I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.20168-1.53495I$		
$a=\ \ 0.035560-0.170255I$	$-3.99142+2.96540I$	0
$b=\ \ 0.055628-0.623909I$		
$u=\ \ 0.318767+0.317698I$		
$a=-0.52218+2.34710I$	$-2.45495-0.21803I$	$0.535482+0.281744I$
$b=\ \ 0.728595+0.621611I$		
$u=\ \ 0.318767-0.317698I$		
$a=-0.52218-2.34710I$	$-2.45495+0.21803I$	$0.535482-0.281744I$
$b=\ \ 0.728595-0.621611I$		

II. $\boldsymbol{I_2^u = \langle 2.48\times 10^7 u^{41} - 1.91\times 10^7 u^{40} + \cdots + 3.94\times 10^6 b - 1.94\times 10^7,\ 1.08\times 10^7 u^{41} - 2.34\times 10^7 u^{40} + \cdots + 3.94\times 10^6 a + 1.83\times 10^6,\ u^{42} + 11u^{40} + \cdots - u + 1\rangle}$

(i) Arc colorings

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

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

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

$$a_9 = \begin{pmatrix} -2.75025u^{41} + 5.92506u^{40} + \cdots + 4.56550u - 0.464939 \\ -6.29335u^{41} + 4.84326u^{40} + \cdots - 8.67531u + 4.92506 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 10.8206u^{41} + 9.12531u^{40} + \cdots - 3.47298u + 9.32568 \\ 8.50296u^{41} + 3.54988u^{40} + \cdots - 0.304710u + 9.12531 \end{pmatrix}$$

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

$$a_{10} = \begin{pmatrix} 0.0728852u^{41} + 4.18160u^{40} + \cdots + 2.10420u - 1.54674 \\ -3.47021u^{41} + 3.09980u^{40} + \cdots - 11.1366u + 3.84326 \end{pmatrix}$$

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

$$a_8 = \begin{pmatrix} 0.0728852u^{41} + 4.18160u^{40} + \cdots + 3.10420u - 1.54674 \\ -6.92724u^{41} + 6.63540u^{40} + \cdots - 14.2453u + 7.02486 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -3.45329u^{41} - 5.81424u^{40} + \cdots + 12.8848u - 8.71909 \\ 2.47177u^{41} + 1.47911u^{40} + \cdots + 8.66963u + 1.03117 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 1.55056u^{41} + 0.591649u^{40} + \cdots + 10.4025u + 3.51094 \\ 0.666025u^{41} + 1.91470u^{40} + \cdots - 1.94694u + 3.34665 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 2.59689u^{41} - 3.27679u^{40} + \cdots + 7.61969u + 0.118711 \\ 4.28962u^{41} - 0.428211u^{40} + \cdots - 0.566875u + 1.18748 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -\frac{65427262}{3944339}u^{41} + \frac{4960727}{3944339}u^{40} + \cdots - \frac{17347683}{563477}u - \frac{25550128}{3944339}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{42} - 22u^{41} + \cdots - 15u + 1$
c_2	$u^{42} + 11u^{40} + \cdots - u + 1$
c_3	$u^{42} - 10u^{40} + \cdots + 4u + 1$
c_4	$u^{42} - 2u^{40} + \cdots - u + 1$
c_5	$u^{42} - 13u^{40} + \cdots - 4u + 1$
c_6	$u^{42} + 11u^{40} + \cdots + u + 1$
c_7	$u^{42} + u^{41} + \cdots + 10u + 1$
c_8	$u^{42} - 2u^{40} + \cdots + 5u + 1$
c_9	$u^{42} + 14u^{41} + \cdots + 100u + 5$
c_{10}	$u^{42} - 13u^{40} + \cdots + 4u + 1$
c_{11}	$u^{42} - 26u^{41} + \cdots - 16u + 1$
c_{12}	$u^{42} - 3u^{41} + \cdots - 4u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{42} + 2y^{41} + \cdots + 27y + 1$
c_2, c_6	$y^{42} + 22y^{41} + \cdots + 15y + 1$
c_3	$y^{42} - 20y^{41} + \cdots + 8y + 1$
c_4	$y^{42} - 4y^{41} + \cdots - 5y + 1$
c_5, c_{10}	$y^{42} - 26y^{41} + \cdots - 16y + 1$
c_7	$y^{42} + 5y^{41} + \cdots - 34y + 1$
c_8	$y^{42} - 4y^{41} + \cdots + y + 1$
c_9	$y^{42} + 10y^{41} + \cdots + 360y + 25$
c_{11}	$y^{42} - 6y^{41} + \cdots + 84y + 1$
c_{12}	$y^{42} - 9y^{41} + \cdots + 2y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.670458+0.713555I$ $a=\ \ 0.973164+0.142027I$ $b=\ \ 0.79476+1.70582I$	$3.53244+3.09675I$	$8.80493-3.18234I$
$u=-0.670458-0.713555I$ $a=\ \ 0.973164-0.142027I$ $b=\ \ 0.79476-1.70582I$	$3.53244-3.09675I$	$8.80493+3.18234I$
$u=-0.765369+0.681061I$ $a=-0.290687+0.798138I$ $b=-0.249516+0.168749I$	$-0.24970-2.93248I$	$0.78372+3.20918I$
$u=-0.765369-0.681061I$ $a=-0.290687-0.798138I$ $b=-0.249516-0.168749I$	$-0.24970+2.93248I$	$0.78372-3.20918I$
$u=-0.181479+1.016510I$ $a=-0.397246+0.442301I$ $b=-0.807929-0.774630I$	$-4.84099-1.24138I$	$-1.82984+5.05876I$
$u=-0.181479-1.016510I$ $a=-0.397246-0.442301I$ $b=-0.807929+0.774630I$	$-4.84099+1.24138I$	$-1.82984-5.05876I$
$u=\ \ 0.659509+0.654424I$ $a=-1.62696+0.05983I$ $b=-0.83118+1.89065I$	$3.55715-0.72991I$	$11.18768+1.45522I$
$u=\ \ 0.659509-0.654424I$ $a=-1.62696-0.05983I$ $b=-0.83118-1.89065I$	$3.55715+0.72991I$	$11.18768-1.45522I$
$u=\ \ 0.782153+0.467085I$ $a=\ \ 0.362792+0.743012I$ $b=-0.113135-0.357342I$	$1.33161+7.62899I$	$5.62238-7.51224I$
$u=\ \ 0.782153-0.467085I$ $a=\ \ 0.362792-0.743012I$ $b=-0.113135+0.357342I$	$1.33161-7.62899I$	$5.62238+7.51224I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.531701 + 0.731373I$ $a = -1.45615 + 1.62975I$ $b = -1.14820 + 1.82542I$	$6.53602 + 1.27696I$	$7.1168 + 13.7607I$
$u = 0.531701 - 0.731373I$ $a = -1.45615 - 1.62975I$ $b = -1.14820 - 1.82542I$	$6.53602 - 1.27696I$	$7.1168 - 13.7607I$
$u = -0.512783 + 0.689247I$ $a = 2.16896 + 1.74741I$ $b = 0.85634 + 1.82804I$	$-0.88350 + 1.12586I$	$3.95962 - 4.39017I$
$u = -0.512783 - 0.689247I$ $a = 2.16896 - 1.74741I$ $b = 0.85634 - 1.82804I$	$-0.88350 - 1.12586I$	$3.95962 + 4.39017I$
$u = 0.105492 + 1.142710I$ $a = 0.615136 + 0.421279I$ $b = 1.055090 - 0.420890I$	$-3.47572 - 3.47512I$	$0.89011 + 1.91027I$
$u = 0.105492 - 1.142710I$ $a = 0.615136 - 0.421279I$ $b = 1.055090 + 0.420890I$	$-3.47572 + 3.47512I$	$0.89011 - 1.91027I$
$u = -0.760232 + 0.863900I$ $a = -0.780387 + 0.639712I$ $b = -0.908836 + 0.017677I$	$-0.24497 - 2.81726I$	$0. + 3.73854I$
$u = -0.760232 - 0.863900I$ $a = -0.780387 - 0.639712I$ $b = -0.908836 - 0.017677I$	$-0.24497 + 2.81726I$	$0. - 3.73854I$
$u = 0.551182 + 1.012470I$ $a = 1.14574 - 1.32473I$ $b = 1.03048 - 1.82842I$	$5.57913 + 3.09875I$	$-11.19527 - 3.15161I$
$u = 0.551182 - 1.012470I$ $a = 1.14574 + 1.32473I$ $b = 1.03048 + 1.82842I$	$5.57913 - 3.09875I$	$-11.19527 + 3.15161I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.572223+1.015750I$ $a=-1.67614-1.08196I$ $b=-1.41264-2.15996I$	$-2.01487-5.56271I$	$2.72621+6.98267I$
$u=-0.572223-1.015750I$ $a=-1.67614+1.08196I$ $b=-1.41264+2.15996I$	$-2.01487+5.56271I$	$2.72621-6.98267I$
$u=-0.667591+0.978214I$ $a=-1.50276-0.95929I$ $b=-0.24454-1.45204I$	$2.71125-8.31111I$	$5.35759+9.33828I$
$u=-0.667591-0.978214I$ $a=-1.50276+0.95929I$ $b=-0.24454+1.45204I$	$2.71125+8.31111I$	$5.35759-9.33828I$
$u=0.523883+0.619357I$ $a=-2.69588+1.20336I$ $b=-0.67112+1.81429I$	$0.89552-6.58153I$	$6.70168+5.42352I$
$u=0.523883-0.619357I$ $a=-2.69588-1.20336I$ $b=-0.67112-1.81429I$	$0.89552+6.58153I$	$6.70168-5.42352I$
$u=-0.145604+0.788646I$ $a=-0.25633+1.90984I$ $b=-0.460282-0.035005I$	$-3.94604-0.19498I$	$-4.57927-1.41449I$
$u=-0.145604-0.788646I$ $a=-0.25633-1.90984I$ $b=-0.460282+0.035005I$	$-3.94604+0.19498I$	$-4.57927+1.41449I$
$u=0.590563+1.047720I$ $a=1.64541-1.05105I$ $b=1.12474-2.38885I$	$-0.53960+11.18960I$	$4.00000-10.67377I$
$u=0.590563-1.047720I$ $a=1.64541+1.05105I$ $b=1.12474+2.38885I$	$-0.53960-11.18960I$	$4.00000+10.67377I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.663997 + 1.017430I$ $a = 1.57665 - 1.07372I$ $b = 0.29062 - 2.00669I$	$2.43664 + 5.93494I$	$7.76279 - 4.79880I$
$u = 0.663997 - 1.017430I$ $a = 1.57665 + 1.07372I$ $b = 0.29062 + 2.00669I$	$2.43664 - 5.93494I$	$7.76279 + 4.79880I$
$u = -0.036945 + 0.778472I$ $a = 1.86422 + 1.34579I$ $b = 1.082220 - 0.107037I$	$-1.93192 + 3.63918I$	$-2.78083 - 4.14568I$
$u = -0.036945 - 0.778472I$ $a = 1.86422 - 1.34579I$ $b = 1.082220 + 0.107037I$	$-1.93192 - 3.63918I$	$-2.78083 + 4.14568I$
$u = 0.546682 + 0.425527I$ $a = 0.751887 - 0.503336I$ $b = -0.960506 - 0.354893I$	$2.96144 + 1.74006I$	$6.97083 + 0.25058I$
$u = 0.546682 - 0.425527I$ $a = 0.751887 + 0.503336I$ $b = -0.960506 + 0.354893I$	$2.96144 - 1.74006I$	$6.97083 - 0.25058I$
$u = 0.015468 + 1.309640I$ $a = 0.129270 + 0.659065I$ $b = 0.267455 + 0.537072I$	$-1.63389 + 1.59592I$	$13.25426 + 0.I$
$u = 0.015468 - 1.309640I$ $a = 0.129270 - 0.659065I$ $b = 0.267455 - 0.537072I$	$-1.63389 - 1.59592I$	$13.25426 + 0.I$
$u = -0.459986 + 0.489536I$ $a = 0.410194 - 1.224130I$ $b = 1.289730 - 0.084097I$	$2.48373 - 4.43340I$	$6.59955 + 7.64683I$
$u = -0.459986 - 0.489536I$ $a = 0.410194 + 1.224130I$ $b = 1.289730 + 0.084097I$	$2.48373 + 4.43340I$	$6.59955 - 7.64683I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.19796+1.53436I$ $a=\quad 0.0391256-0.1159400I$ $b=\quad 0.016441-0.575361I$	$-4.03906-2.89466I$	0
$u=-0.19796-1.53436I$ $a=\quad 0.0391256+0.1159400I$ $b=\quad 0.016441+0.575361I$	$-4.03906+2.89466I$	0

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{42}-22u^{41}+\cdots-15u+1)$ $\cdot(u^{183}+77u^{182}+\cdots-46277120u-1283689)$
c_2	$(u^{42}+11u^{40}+\cdots-u+1)(u^{183}-u^{182}+\cdots+4256u-1133)$
c_3	$(u^{42}-10u^{40}+\cdots+4u+1)(u^{183}+u^{182}+\cdots+31u-3)$
c_4	$(u^{42}-2u^{40}+\cdots-u+1)(u^{183}+3u^{182}+\cdots+555350u-53533)$
c_5	$(u^{42}-13u^{40}+\cdots-4u+1)(u^{183}+u^{182}+\cdots-173u-59)$
c_6	$(u^{42}+11u^{40}+\cdots+u+1)(u^{183}-u^{182}+\cdots+4256u-1133)$
c_7	$(u^{42}+u^{41}+\cdots+10u+1)(u^{183}-2u^{182}+\cdots+334697u-27379)$
c_8	$(u^{42}-2u^{40}+\cdots+5u+1)(u^{183}-5u^{182}+\cdots-6926u-485)$
c_9	$(u^{42}+14u^{41}+\cdots+100u+5)$ $\cdot(u^{183}+7u^{182}+\cdots+1157925u-194803)$
c_{10}	$(u^{42}-13u^{40}+\cdots+4u+1)(u^{183}+u^{182}+\cdots-173u-59)$
c_{11}	$(u^{42}-26u^{41}+\cdots-16u+1)(u^{183}-87u^{182}+\cdots+82911u-3481)$
c_{12}	$(u^{42}-3u^{41}+\cdots-4u+1)(u^{183}+16u^{182}+\cdots-199u-7)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{42}+2y^{41}+\cdots+27y+1)$ $\cdot(y^{183}+65y^{182}+\cdots-180776219221564y-1647857448721)$
c_2, c_6	$(y^{42}+22y^{41}+\cdots+15y+1)$ $\cdot(y^{183}+77y^{182}+\cdots-46277120y-1283689)$
c_3	$(y^{42}-20y^{41}+\cdots+8y+1)(y^{183}-17y^{182}+\cdots+67y-9)$
c_4	$(y^{42}-4y^{41}+\cdots-5y+1)$ $\cdot(y^{183}+11y^{182}+\cdots-122436449664y-2865782089)$
c_5, c_{10}	$(y^{42}-26y^{41}+\cdots-16y+1)(y^{183}-87y^{182}+\cdots+82911y-3481)$
c_7	$(y^{42}+5y^{41}+\cdots-34y+1)$ $\cdot(y^{183}-28y^{182}+\cdots-2771494231y-749609641)$
c_8	$(y^{42}-4y^{41}+\cdots+y+1)(y^{183}-29y^{182}+\cdots-4.01327\times10^{7}y-235225)$
c_9	$(y^{42}+10y^{41}+\cdots+360y+25)$ $\cdot(y^{183}-11y^{182}+\cdots-18463850066073y-37948208809)$
c_{11}	$(y^{42}-6y^{41}+\cdots+84y+1)$ $\cdot(y^{183}+33y^{182}+\cdots+364826579y-12117361)$
c_{12}	$(y^{42}-9y^{41}+\cdots+2y+1)(y^{183}+10y^{182}+\cdots-2819y-49)$