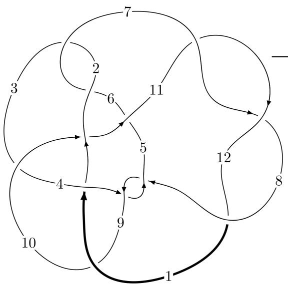
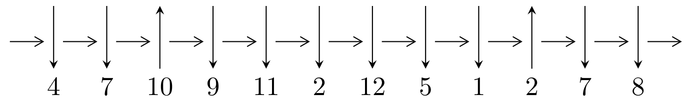
$12n_{0796}$ ($K12n_{0796}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 1.55932 \times 10^{237} u^{68} + 4.63994 \times 10^{237} u^{67} + \cdots + 4.94979 \times 10^{240} b + 1.30744 \times 10^{242}, \\ & 7.84763 \times 10^{240} u^{68} - 1.52555 \times 10^{241} u^{67} + \cdots + 8.51859 \times 10^{243} a + 7.61648 \times 10^{244}, \\ & u^{69} - 2u^{68} + \cdots + 5609u + 1721 \rangle \\ I_2^u = \langle & -1472105u^{20} + 1018220u^{19} + \cdots + 1155956b - 2256995, \\ & 969434u^{20} - 866657u^{19} + \cdots + 1155956a - 2244463,\ u^{21} - u^{20} + \cdots + u - 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 90 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. $I^u_1 = \langle 1.56\times10^{237}u^{68} + 4.64\times10^{237}u^{67} + \cdots + 4.95\times10^{240}b + 1.31\times10^{242},\ 7.85\times10^{240}u^{68} - 1.53\times10^{241}u^{67} + \cdots + 8.52\times10^{243}a + 7.62\times10^{244},\ u^{69} - 2u^{68} + \cdots + 5609u + 1721\rangle$

(i) Arc colorings

$$a_2 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_7 = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_3 = \begin{pmatrix}1\\u^2\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}-0.000921236u^{68} + 0.00179085u^{67} + \cdots - 43.1069u - 8.94101\\-0.000315028u^{68} - 0.000937401u^{67} + \cdots - 31.1935u - 26.4140\end{pmatrix}$$
$$a_{12} = \begin{pmatrix}-0.000921236u^{68} + 0.00179085u^{67} + \cdots - 43.1069u - 8.94101\\-0.000404125u^{68} - 0.00110399u^{67} + \cdots - 29.3185u - 26.3252\end{pmatrix}$$
$$a_8 = \begin{pmatrix}0.000650255u^{68} - 0.00261630u^{67} + \cdots - 27.0684u - 14.1292\\0.00264634u^{68} - 0.00616524u^{67} + \cdots + 51.9013u - 0.182253\end{pmatrix}$$
$$a_6 = \begin{pmatrix}u\\u\end{pmatrix}$$
$$a_5 = \begin{pmatrix}0.00238017u^{68} - 0.00420828u^{67} + \cdots + 72.7085u + 11.6824\\-0.00160834u^{68} + 0.00384638u^{67} + \cdots - 14.9392u + 5.56054\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}-0.000606208u^{68} + 0.00272825u^{67} + \cdots - 11.9134u + 17.4730\\-0.000315028u^{68} - 0.000937401u^{67} + \cdots - 31.1935u - 26.4140\end{pmatrix}$$
$$a_4 = \begin{pmatrix}0.00315336u^{68} - 0.00460678u^{67} + \cdots + 75.7131u + 28.1976\\-0.00117961u^{68} + 0.00385784u^{67} + \cdots + 8.86048u + 21.3205\end{pmatrix}$$
$$a_1 = \begin{pmatrix}-0.00370793u^{68} + 0.00810308u^{67} + \cdots - 52.0777u - 5.15730\\-0.00114283u^{68} + 0.000233290u^{67} + \cdots - 63.0317u - 36.7696\end{pmatrix}$$
$$a_9 = \begin{pmatrix}0.00335059u^{68} - 0.00924250u^{67} + \cdots + 29.6036u - 19.7274\\0.00574565u^{68} - 0.0116910u^{67} + \cdots + 104.318u + 9.12336\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.00547948u^{68} + 0.0175300u^{67} + \cdots - 64.8102u + 67.4117$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{69} - 9u^{68} + \cdots + 1142u - 73$
c_2, c_6	$u^{69} - 2u^{68} + \cdots + 5609u + 1721$
c_3	$u^{69} - 9u^{67} + \cdots + 7145u + 559$
c_4, c_8	$u^{69} + 3u^{68} + \cdots + 20u + 4$
c_5	$u^{69} + u^{68} + \cdots - 1168u + 437$
c_7, c_{11}, c_{12}	$u^{69} - 2u^{68} + \cdots + 225u + 161$
c_9	$u^{69} + 6u^{68} + \cdots - 59u + 19$
c_{10}	$u^{69} - 38u^{67} + \cdots + 3400u + 644$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{69} + 25y^{68} + \cdots + 523064y - 5329$
c_2, c_6	$y^{69} + 70y^{68} + \cdots - 122107391y - 2961841$
c_3	$y^{69} - 18y^{68} + \cdots + 16869293y - 312481$
c_4, c_8	$y^{69} + 43y^{68} + \cdots - 4352y - 16$
c_5	$y^{69} + 91y^{68} + \cdots - 22307192y - 190969$
c_7, c_{11}, c_{12}	$y^{69} - 64y^{68} + \cdots - 149015y - 25921$
c_9	$y^{69} + 2y^{68} + \cdots - 9629y - 361$
c_{10}	$y^{69} - 76y^{68} + \cdots + 45637904y - 414736$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.158298 + 0.986188I$ $a = -0.272064 - 1.303170I$ $b = -0.115321 - 1.299330I$	$-5.58857 + 2.81982I$	$-8.00000 + 0.I$
$u = -0.158298 - 0.986188I$ $a = -0.272064 + 1.303170I$ $b = -0.115321 + 1.299330I$	$-5.58857 - 2.81982I$	$-8.00000 + 0.I$
$u = 0.083642 + 1.056570I$ $a = -0.337592 + 1.151720I$ $b = -0.02643 + 1.67928I$	$-1.73341 - 7.58301I$	0
$u = 0.083642 - 1.056570I$ $a = -0.337592 - 1.151720I$ $b = -0.02643 - 1.67928I$	$-1.73341 + 7.58301I$	0
$u = 0.897841 + 0.622401I$ $a = -1.013910 + 0.791688I$ $b = -0.926980 + 0.100178I$	$-3.24604 - 2.07530I$	0
$u = 0.897841 - 0.622401I$ $a = -1.013910 - 0.791688I$ $b = -0.926980 - 0.100178I$	$-3.24604 + 2.07530I$	0
$u = -0.873469 + 0.076955I$ $a = 0.183288 + 0.285846I$ $b = -0.406670 - 0.103429I$	$-1.062540 + 0.145716I$	$-4.45967 + 4.12515I$
$u = -0.873469 - 0.076955I$ $a = 0.183288 - 0.285846I$ $b = -0.406670 + 0.103429I$	$-1.062540 - 0.145716I$	$-4.45967 - 4.12515I$
$u = -0.276545 + 1.134330I$ $a = -0.419440 - 1.000890I$ $b = -2.15654 - 0.20349I$	$5.65453 + 1.08327I$	0
$u = -0.276545 - 1.134330I$ $a = -0.419440 + 1.000890I$ $b = -2.15654 + 0.20349I$	$5.65453 - 1.08327I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.559678 + 0.527322I$ $a = -1.39441 - 1.42597I$ $b = 0.168662 + 0.071411I$	$-7.42057 - 0.68077I$	$-9.11367 - 4.86767I$
$u = -0.559678 - 0.527322I$ $a = -1.39441 + 1.42597I$ $b = 0.168662 - 0.071411I$	$-7.42057 + 0.68077I$	$-9.11367 + 4.86767I$
$u = 0.046375 + 0.765714I$ $a = 0.29507 + 1.43922I$ $b = -0.475537 + 1.205130I$	$-2.54675 + 1.17327I$	$-8.71427 - 1.88942I$
$u = 0.046375 - 0.765714I$ $a = 0.29507 - 1.43922I$ $b = -0.475537 - 1.205130I$	$-2.54675 - 1.17327I$	$-8.71427 + 1.88942I$
$u = 1.109890 + 0.543098I$ $a = -0.167780 - 0.533391I$ $b = -0.226182 - 0.061038I$	$2.06906 - 4.86203I$	0
$u = 1.109890 - 0.543098I$ $a = -0.167780 + 0.533391I$ $b = -0.226182 + 0.061038I$	$2.06906 + 4.86203I$	0
$u = -0.275066 + 0.704105I$ $a = -0.58805 - 2.16534I$ $b = -0.790942 - 0.769428I$	$-4.81193 + 0.89227I$	$-9.11144 + 1.07907I$
$u = -0.275066 - 0.704105I$ $a = -0.58805 + 2.16534I$ $b = -0.790942 + 0.769428I$	$-4.81193 - 0.89227I$	$-9.11144 - 1.07907I$
$u = 0.353524 + 0.612098I$ $a = -1.23670 + 1.80209I$ $b = -0.822113 + 0.104555I$	$-3.12815 - 2.49344I$	$-7.27898 + 4.57610I$
$u = 0.353524 - 0.612098I$ $a = -1.23670 - 1.80209I$ $b = -0.822113 - 0.104555I$	$-3.12815 + 2.49344I$	$-7.27898 - 4.57610I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.287570+0.252312I$ $a=-0.798351-0.401734I$ $b=-0.700910-0.154778I$	$-3.53458-1.35311I$	0
$u=-1.287570-0.252312I$ $a=-0.798351+0.401734I$ $b=-0.700910+0.154778I$	$-3.53458+1.35311I$	0
$u=0.438476+0.526047I$ $a=1.039740+0.065197I$ $b=0.532056-0.185656I$	$3.24596-0.23179I$	$-3.95693+3.09799I$
$u=0.438476-0.526047I$ $a=1.039740-0.065197I$ $b=0.532056+0.185656I$	$3.24596+0.23179I$	$-3.95693-3.09799I$
$u=0.331403+0.571115I$ $a=-0.336557-1.133840I$ $b=-0.333318+0.405393I$	$2.88430+3.68981I$	$-3.97105-4.01517I$
$u=0.331403-0.571115I$ $a=-0.336557+1.133840I$ $b=-0.333318-0.405393I$	$2.88430-3.68981I$	$-3.97105+4.01517I$
$u=0.003294+1.405920I$ $a=0.424182-0.124262I$ $b=1.89700-0.41536I$	$8.98523-1.65207I$	0
$u=0.003294-1.405920I$ $a=0.424182+0.124262I$ $b=1.89700+0.41536I$	$8.98523+1.65207I$	0
$u=1.45256+0.09643I$ $a=0.882941+0.151010I$ $b=1.014830-0.130294I$	$-1.63011-8.47566I$	0
$u=1.45256-0.09643I$ $a=0.882941-0.151010I$ $b=1.014830+0.130294I$	$-1.63011+8.47566I$	0

Solutions to I^u_1	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.50626+1.36552I$ $a=-0.571385+0.832237I$ $b=-1.55177+0.45405I$	$-0.63369-3.48980I$	0
$u = 0.50626-1.36552I$ $a=-0.571385-0.832237I$ $b=-1.55177-0.45405I$	$-0.63369+3.48980I$	0
$u = 0.304513+0.423795I$ $a=-1.43929+2.57107I$ $b=0.350883-0.574081I$	$-3.93150+6.37374I$	$-6.00431-0.55984I$
$u = 0.304513-0.423795I$ $a=-1.43929-2.57107I$ $b=0.350883+0.574081I$	$-3.93150-6.37374I$	$-6.00431+0.55984I$
$u = -1.45998+0.32838I$ $a=0.778216+0.237416I$ $b=1.146240-0.151845I$	$-4.12698-1.49086I$	0
$u = -1.45998-0.32838I$ $a=0.778216-0.237416I$ $b=1.146240+0.151845I$	$-4.12698+1.49086I$	0
$u = 0.76152+1.29459I$ $a=0.565850-0.600524I$ $b=1.73177-0.07649I$	$6.56829-3.06698I$	0
$u = 0.76152-1.29459I$ $a=0.565850+0.600524I$ $b=1.73177+0.07649I$	$6.56829+3.06698I$	0
$u = 0.16311+1.51940I$ $a=-0.278382+0.891128I$ $b=-1.59418+1.00854I$	$3.87490-4.93069I$	0
$u = 0.16311-1.51940I$ $a=-0.278382-0.891128I$ $b=-1.59418-1.00854I$	$3.87490+4.93069I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.11712 + 1.52857I$ $a = 0.503854 - 0.260580I$ $b = 1.52489 + 0.06927I$	$5.16690 + 0.91358I$	0
$u = 0.11712 - 1.52857I$ $a = 0.503854 + 0.260580I$ $b = 1.52489 - 0.06927I$	$5.16690 - 0.91358I$	0
$u = -0.20757 + 1.56047I$ $a = -0.180163 - 0.719584I$ $b = -1.35279 - 0.83587I$	$3.38686 + 3.48426I$	0
$u = -0.20757 - 1.56047I$ $a = -0.180163 + 0.719584I$ $b = -1.35279 + 0.83587I$	$3.38686 - 3.48426I$	0
$u = -0.12399 + 1.59477I$ $a = 0.681440 + 0.660461I$ $b = 1.63144 + 0.20640I$	$8.17838 - 3.00736I$	0
$u = -0.12399 - 1.59477I$ $a = 0.681440 - 0.660461I$ $b = 1.63144 - 0.20640I$	$8.17838 + 3.00736I$	0
$u = 0.06103 + 1.60204I$ $a = 0.782383 - 0.156927I$ $b = 1.60703 + 0.02690I$	$5.14159 + 1.38074I$	0
$u = 0.06103 - 1.60204I$ $a = 0.782383 + 0.156927I$ $b = 1.60703 - 0.02690I$	$5.14159 - 1.38074I$	0
$u = -0.50160 + 1.56330I$ $a = -0.605057 - 0.716082I$ $b = -1.51304 - 0.58879I$	$1.18052 + 8.01996I$	0
$u = -0.50160 - 1.56330I$ $a = -0.605057 + 0.716082I$ $b = -1.51304 + 0.58879I$	$1.18052 - 8.01996I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.108395 + 0.310529I$ $a = 2.04945 - 0.08178I$ $b = 0.519163 - 1.201190I$	$1.60702 - 4.33264I$	$-3.39028 + 0.73355I$
$u = -0.108395 - 0.310529I$ $a = 2.04945 + 0.08178I$ $b = 0.519163 + 1.201190I$	$1.60702 + 4.33264I$	$-3.39028 - 0.73355I$
$u = 0.31783 + 1.64373I$ $a = -0.410181 - 0.179193I$ $b = -1.56558 - 0.16838I$	$9.72300 + 0.50483I$	0
$u = 0.31783 - 1.64373I$ $a = -0.410181 + 0.179193I$ $b = -1.56558 + 0.16838I$	$9.72300 - 0.50483I$	0
$u = -0.112837 + 0.298176I$ $a = 1.372770 + 0.307949I$ $b = 0.223037 + 0.869700I$	$-0.66690 + 1.42409I$	$-5.32505 - 6.58254I$
$u = -0.112837 - 0.298176I$ $a = 1.372770 - 0.307949I$ $b = 0.223037 - 0.869700I$	$-0.66690 - 1.42409I$	$-5.32505 + 6.58254I$
$u = -0.312476$ $a = 1.51887$ $b = -0.349862$	-0.836204	-10.8240
$u = -0.27602 + 1.70711I$ $a = -0.473587 - 0.096462I$ $b = -1.57240 - 0.17128I$	$5.92558 + 5.18269I$	0
$u = -0.27602 - 1.70711I$ $a = -0.473587 + 0.096462I$ $b = -1.57240 + 0.17128I$	$5.92558 - 5.18269I$	0
$u = 0.31729 + 1.70235I$ $a = 0.215927 - 0.598368I$ $b = 1.142090 - 0.229954I$	$4.02110 + 1.66857I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.31729 - 1.70235I$ $a = 0.215927 + 0.598368I$ $b = 1.142090 + 0.229954I$	$4.02110 - 1.66857I$	0
$u = 0.26471 + 1.72015I$ $a = -0.676450 + 0.114182I$ $b = -1.78553 + 0.24731I$	$10.1818 - 10.1391I$	0
$u = 0.26471 - 1.72015I$ $a = -0.676450 - 0.114182I$ $b = -1.78553 - 0.24731I$	$10.1818 + 10.1391I$	0
$u = 0.56884 + 1.65411I$ $a = 0.528673 - 0.738965I$ $b = 1.73021 - 0.61726I$	$4.1767 - 15.8025I$	0
$u = 0.56884 - 1.65411I$ $a = 0.528673 + 0.738965I$ $b = 1.73021 + 0.61726I$	$4.1767 + 15.8025I$	0
$u = -0.66790 + 1.62331I$ $a = 0.490922 + 0.682589I$ $b = 1.64092 + 0.46630I$	$0.41185 + 9.31633I$	0
$u = -0.66790 - 1.62331I$ $a = 0.490922 - 0.682589I$ $b = 1.64092 - 0.46630I$	$0.41185 - 9.31633I$	0
$u = -0.05409 + 1.77796I$ $a = 0.214954 + 0.777838I$ $b = 1.230930 + 0.437174I$	$4.73411 + 4.44269I$	0
$u = -0.05409 - 1.77796I$ $a = 0.214954 - 0.777838I$ $b = 1.230930 - 0.437174I$	$4.73411 - 4.44269I$	0

II.

$$\boldsymbol{I_2^u = \langle -1.47 \times 10^6 u^{20} + 1.02 \times 10^6 u^{19} + \cdots + 1.16 \times 10^6 b - 2.26 \times 10^6,\ 9.69 \times 10^5 u^{20} - 8.67 \times 10^5 u^{19} + \cdots + 1.16 \times 10^6 a - 2.24 \times 10^6,\ u^{21} - u^{20} + \cdots + u - 1 \rangle}$$

(i) Arc colorings

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

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

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

$$a_{11} = \begin{pmatrix} -0.838643u^{20} + 0.749732u^{19} + \cdots - 0.873164u + 1.94165 \\ 1.27350u^{20} - 0.880847u^{19} + \cdots + 0.587410u + 1.95249 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.838643u^{20} + 0.749732u^{19} + \cdots - 0.873164u + 1.94165 \\ 0.936639u^{20} - 0.594961u^{19} + \cdots - 0.162322u + 1.86358 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1.75994u^{20} + 1.25748u^{19} + \cdots - 8.26896u + 2.95195 \\ 2.45099u^{20} - 0.835356u^{19} + \cdots - 0.576876u + 3.00745 \end{pmatrix}$$

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

$$a_5 = \begin{pmatrix} -1.13843u^{20} - 1.31272u^{19} + \cdots + 8.94957u - 2.96191 \\ 0.218346u^{20} - 0.0130316u^{19} + \cdots + 1.52471u + 0.716223 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -2.11214u^{20} + 1.63058u^{19} + \cdots - 1.46057u - 0.0108412 \\ 1.27350u^{20} - 0.880847u^{19} + \cdots + 0.587410u + 1.95249 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -3.37269u^{20} + 2.25418u^{19} + \cdots - 0.270532u - 1.59771 \\ 0.911568u^{20} - 0.205314u^{19} + \cdots - 0.283777u + 1.12991 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.0729249u^{20} - 0.544418u^{19} + \cdots + 1.15694u - 3.07156 \\ -1.75142u^{20} + 0.273581u^{19} + \cdots + 0.0784632u - 0.836167 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -1.97499u^{20} + 2.56253u^{19} + \cdots + 0.0537434u - 3.30592 \\ 0.305597u^{20} + 0.371861u^{19} + \cdots - 1.77387u + 2.31582 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{3328575}{288989}u^{20} - \frac{3093691}{577978}u^{19} + \cdots + \frac{1150671}{577978}u + \frac{97487}{577978}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{21} - 4u^{20} + \cdots + 4u - 1$
c_2	$u^{21} - u^{20} + \cdots + u - 1$
c_3	$u^{21} + u^{20} + \cdots + 13u + 9$
c_4	$u^{21} + 2u^{20} + \cdots + 8u + 4$
c_5	$u^{21} + 7u^{19} + \cdots + 30u + 1$
c_6	$u^{21} + u^{20} + \cdots + u + 1$
c_7	$u^{21} - u^{20} + \cdots + 5u - 1$
c_8	$u^{21} - 2u^{20} + \cdots + 8u - 4$
c_9	$u^{21} + u^{20} + \cdots - 3u - 1$
c_{10}	$u^{21} - 3u^{20} + \cdots + 12u - 4$
c_{11}, c_{12}	$u^{21} + u^{20} + \cdots + 5u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{21} + 8y^{20} + \cdots - 4y - 1$
c_2, c_6	$y^{21} + 13y^{20} + \cdots + 9y - 1$
c_3	$y^{21} - 3y^{20} + \cdots - 83y - 81$
c_4, c_8	$y^{21} + 14y^{20} + \cdots - 112y - 16$
c_5	$y^{21} + 14y^{20} + \cdots + 864y - 1$
c_7, c_{11}, c_{12}	$y^{21} - 25y^{20} + \cdots + 9y - 1$
c_9	$y^{21} - 3y^{20} + \cdots - y - 1$
c_{10}	$y^{21} - 17y^{20} + \cdots - 64y - 16$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.561157 + 0.901561I$ $a = -0.68758 - 1.44240I$ $b = -0.590397 - 0.678765I$	$-5.00046 + 1.80387I$	$-12.21784 - 5.60758I$
$u = -0.561157 - 0.901561I$ $a = -0.68758 + 1.44240I$ $b = -0.590397 + 0.678765I$	$-5.00046 - 1.80387I$	$-12.21784 + 5.60758I$
$u = 0.807360 + 0.286313I$ $a = -1.38109 + 0.86594I$ $b = -0.587723 + 0.592712I$	$-4.40952 + 1.11701I$	$-14.5809 - 2.0497I$
$u = 0.807360 - 0.286313I$ $a = -1.38109 - 0.86594I$ $b = -0.587723 - 0.592712I$	$-4.40952 - 1.11701I$	$-14.5809 + 2.0497I$
$u = 0.743753 + 0.239370I$ $a = -0.276431 + 0.285848I$ $b = 0.508126 + 0.521370I$	$-1.33875 + 0.63912I$	$-11.08801 - 5.90714I$
$u = 0.743753 - 0.239370I$ $a = -0.276431 - 0.285848I$ $b = 0.508126 - 0.521370I$	$-1.33875 - 0.63912I$	$-11.08801 + 5.90714I$
$u = -0.645247 + 0.396216I$ $a = -0.362993 + 0.499905I$ $b = 0.171757 + 0.896114I$	$0.95419 + 5.02373I$	$-10.96767 - 6.73427I$
$u = -0.645247 - 0.396216I$ $a = -0.362993 - 0.499905I$ $b = 0.171757 - 0.896114I$	$0.95419 - 5.02373I$	$-10.96767 + 6.73427I$
$u = 1.24638$ $a = -0.985958$ $b = -1.01348$	-4.18100	-9.64630
$u = 0.011700 + 1.320960I$ $a = 0.316294 - 0.431096I$ $b = 1.72321 - 0.15242I$	$7.96622 + 0.10384I$	$-4.19566 - 0.46618I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.011700 - 1.320960I$ $a = 0.316294 + 0.431096I$ $b = 1.72321 + 0.15242I$	$7.96622 - 0.10384I$	$-4.19566 + 0.46618I$
$u = -0.435613 + 1.277620I$ $a = -0.403231 - 0.827190I$ $b = -1.96724 - 0.36213I$	$5.47011 + 2.02608I$	$-7.19785 - 3.46074I$
$u = -0.435613 - 1.277620I$ $a = -0.403231 + 0.827190I$ $b = -1.96724 + 0.36213I$	$5.47011 - 2.02608I$	$-7.19785 + 3.46074I$
$u = 0.511370 + 0.359085I$ $a = 1.95727 - 1.44685I$ $b = -0.377286 - 0.543412I$	$-7.65043 + 1.27003I$	$-13.8530 - 5.9198I$
$u = 0.511370 - 0.359085I$ $a = 1.95727 + 1.44685I$ $b = -0.377286 + 0.543412I$	$-7.65043 - 1.27003I$	$-13.8530 + 5.9198I$
$u = -0.512008 + 0.216126I$ $a = 2.53508 + 0.79978I$ $b = 0.013476 - 0.796482I$	$-4.42994 + 7.07571I$	$-12.1028 - 7.6122I$
$u = -0.512008 - 0.216126I$ $a = 2.53508 - 0.79978I$ $b = 0.013476 + 0.796482I$	$-4.42994 - 7.07571I$	$-12.1028 + 7.6122I$
$u = -0.18694 + 1.62746I$ $a = 0.543871 + 0.241555I$ $b = 1.41334 - 0.08784I$	$6.13244 - 1.40053I$	$-1.40328 + 1.79349I$
$u = -0.18694 - 1.62746I$ $a = 0.543871 - 0.241555I$ $b = 1.41334 + 0.08784I$	$6.13244 + 1.40053I$	$-1.40328 - 1.79349I$
$u = 0.14359 + 1.63447I$ $a = -0.248205 + 0.792792I$ $b = -1.30052 + 0.82918I$	$2.75172 - 5.22509I$	$-10.06988 + 5.83206I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = \quad 0.14359 - 1.63447I$ $a = -0.248205 - 0.792792I$ $b = -1.30052 - 0.82918I$	$2.75172 + 5.22509I$	$-10.06988 - 5.83206I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{21} - 4u^{20} + \cdots + 4u - 1)(u^{69} - 9u^{68} + \cdots + 1142u - 73)$
c_2	$(u^{21} - u^{20} + \cdots + u - 1)(u^{69} - 2u^{68} + \cdots + 5609u + 1721)$
c_3	$(u^{21} + u^{20} + \cdots + 13u + 9)(u^{69} - 9u^{67} + \cdots + 7145u + 559)$
c_4	$(u^{21} + 2u^{20} + \cdots + 8u + 4)(u^{69} + 3u^{68} + \cdots + 20u + 4)$
c_5	$(u^{21} + 7u^{19} + \cdots + 30u + 1)(u^{69} + u^{68} + \cdots - 1168u + 437)$
c_6	$(u^{21} + u^{20} + \cdots + u + 1)(u^{69} - 2u^{68} + \cdots + 5609u + 1721)$
c_7	$(u^{21} - u^{20} + \cdots + 5u - 1)(u^{69} - 2u^{68} + \cdots + 225u + 161)$
c_8	$(u^{21} - 2u^{20} + \cdots + 8u - 4)(u^{69} + 3u^{68} + \cdots + 20u + 4)$
c_9	$(u^{21} + u^{20} + \cdots - 3u - 1)(u^{69} + 6u^{68} + \cdots - 59u + 19)$
c_{10}	$(u^{21} - 3u^{20} + \cdots + 12u - 4)(u^{69} - 38u^{67} + \cdots + 3400u + 644)$
c_{11}, c_{12}	$(u^{21} + u^{20} + \cdots + 5u + 1)(u^{69} - 2u^{68} + \cdots + 225u + 161)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{21}+8y^{20}+\cdots-4y-1)(y^{69}+25y^{68}+\cdots+523064y-5329)$
c_2, c_6	$(y^{21}+13y^{20}+\cdots+9y-1)$ $\cdot(y^{69}+70y^{68}+\cdots-122107391y-2961841)$
c_3	$(y^{21}-3y^{20}+\cdots-83y-81)$ $\cdot(y^{69}-18y^{68}+\cdots+16869293y-312481)$
c_4, c_8	$(y^{21}+14y^{20}+\cdots-112y-16)(y^{69}+43y^{68}+\cdots-4352y-16)$
c_5	$(y^{21}+14y^{20}+\cdots+864y-1)$ $\cdot(y^{69}+91y^{68}+\cdots-22307192y-190969)$
c_7, c_{11}, c_{12}	$(y^{21}-25y^{20}+\cdots+9y-1)(y^{69}-64y^{68}+\cdots-149015y-25921)$
c_9	$(y^{21}-3y^{20}+\cdots-y-1)(y^{69}+2y^{68}+\cdots-9629y-361)$
c_{10}	$(y^{21}-17y^{20}+\cdots-64y-16)$ $\cdot(y^{69}-76y^{68}+\cdots+45637904y-414736)$