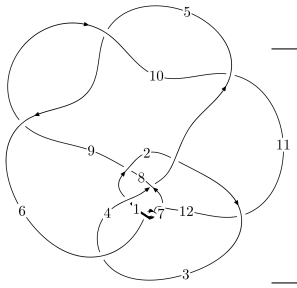
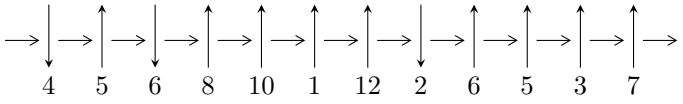
$12n_{0687}$ $(K12n_{0687})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 9.93374 \times 10^{151} u^{69} - 5.73011 \times 10^{151} u^{68} + \cdots + 1.25167 \times 10^{152} b - 1.15684 \times 10^{152}, \\ & - 2.27978 \times 10^{152} u^{69} + 7.27815 \times 10^{151} u^{68} + \cdots + 1.25167 \times 10^{152} a - 1.09032 \times 10^{153}, \\ & u^{70} + 8u^{68} + \cdots + 12u + 1 \rangle \\ I_2^u = \langle & 784u^{16} - 1472u^{15} + \cdots + 281b - 1616,\ -u^{16} - 4u^{14} + \cdots + a - 7,\ u^{17} - u^{16} + \cdots - u + 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 87 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. $\boldsymbol{I_1^u = \langle 9.93 \times 10^{151} u^{69} - 5.73 \times 10^{151} u^{68} + \cdots + 1.25 \times 10^{152} b - 1.16 \times 10^{152},\ -2.28 \times 10^{152} u^{69} + 7.28 \times 10^{151} u^{68} + \cdots + 1.25 \times 10^{152} a - 1.09 \times 10^{153},\ u^{70} + 8u^{68} + \cdots + 12u + 1 \rangle}$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_2 = \begin{pmatrix} 1.82140u^{69} - 0.581477u^{68} + \cdots + 39.0109u + 8.71095 \\ -0.793642u^{69} + 0.457798u^{68} + \cdots + 1.47985u + 0.924244 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 1.02178u^{69} - 0.283802u^{68} + \cdots + 35.3344u + 9.05372 \\ -0.484690u^{69} + 0.265454u^{68} + \cdots - 1.29264u + 0.626569 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 1.50647u^{69} - 0.549256u^{68} + \cdots + 36.6270u + 8.42715 \\ -0.484690u^{69} + 0.265454u^{68} + \cdots - 1.29264u + 0.626569 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -2.10413u^{69} + 0.456635u^{68} + \cdots - 57.5910u - 11.5890 \\ 0.171585u^{69} + 0.157443u^{68} + \cdots - 6.10514u - 1.41447 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 1.13758u^{69} - 0.539841u^{68} + \cdots + 39.0714u + 7.72721 \\ 0.261369u^{69} - 0.0100471u^{68} + \cdots - 1.35091u + 0.206159 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u \\ u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -1.63790u^{69} + 0.361732u^{68} + \cdots - 57.8284u - 11.6027 \\ -0.708579u^{69} - 0.0963778u^{68} + \cdots - 16.6684u - 2.12525 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -1.39909u^{69} + 0.856722u^{68} + \cdots - 38.1398u - 5.68756 \\ -0.279079u^{69} - 0.230487u^{68} + \cdots - 17.0325u - 1.58453 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.717657u^{69} + 2.08595u^{68} + \cdots + 98.0282u + 17.8328$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{70} - 8u^{69} + \cdots + 54u + 9$
c_2	$u^{70} - 7u^{69} + \cdots + 9260u - 7239$
c_3	$u^{70} + 2u^{69} + \cdots + 564u + 41$
c_4	$u^{70} - u^{69} + \cdots - 22u - 1$
c_5, c_9, c_{10}	$u^{70} + 8u^{68} + \cdots - 12u + 1$
c_6, c_7, c_{12}	$u^{70} + 34u^{68} + \cdots + 17u + 3$
c_8	$u^{70} - 2u^{69} + \cdots + 4105u + 2083$
c_{11}	$u^{70} + u^{69} + \cdots - 329u + 1651$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{70} - 10y^{69} + \cdots - 144y + 81$
c_2	$y^{70} - 61y^{69} + \cdots - 1022459722y + 52403121$
c_3	$y^{70} + 12y^{69} + \cdots - 24782y + 1681$
c_4	$y^{70} + 7y^{69} + \cdots + 122y + 1$
c_5, c_9, c_{10}	$y^{70} + 16y^{69} + \cdots - 30y + 1$
c_6, c_7, c_{12}	$y^{70} + 68y^{69} + \cdots - 223y + 9$
c_8	$y^{70} + 12y^{69} + \cdots + 246685969y + 4338889$
c_{11}	$y^{70} - 65y^{69} + \cdots - 76523125y + 2725801$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.182629 + 0.959522I$ $a = 1.001330 + 0.504116I$ $b = -0.495567 + 0.539126I$	$-5.19104 + 2.89870I$	$-1.83556 - 3.69030I$
$u = 0.182629 - 0.959522I$ $a = 1.001330 - 0.504116I$ $b = -0.495567 - 0.539126I$	$-5.19104 - 2.89870I$	$-1.83556 + 3.69030I$
$u = 0.889971 + 0.615220I$ $a = 1.49599 - 0.81473I$ $b = 0.658738 + 0.726934I$	$-2.94953 + 6.14576I$	0
$u = 0.889971 - 0.615220I$ $a = 1.49599 + 0.81473I$ $b = 0.658738 - 0.726934I$	$-2.94953 - 6.14576I$	0
$u = 0.467157 + 1.015360I$ $a = 0.469020 - 0.334689I$ $b = -0.91014 + 1.45911I$	$-4.76852 - 0.93744I$	0
$u = 0.467157 - 1.015360I$ $a = 0.469020 + 0.334689I$ $b = -0.91014 - 1.45911I$	$-4.76852 + 0.93744I$	0
$u = -0.222651 + 0.847009I$ $a = 1.14984 + 1.14399I$ $b = -0.0748484 + 0.0360553I$	$-7.73355 + 3.72028I$	$-2.51438 - 0.93811I$
$u = -0.222651 - 0.847009I$ $a = 1.14984 - 1.14399I$ $b = -0.0748484 - 0.0360553I$	$-7.73355 - 3.72028I$	$-2.51438 + 0.93811I$
$u = -0.751668 + 0.837280I$ $a = -1.72961 - 0.46280I$ $b = 1.14330 + 1.25142I$	$-0.30303 - 6.28207I$	0
$u = -0.751668 - 0.837280I$ $a = -1.72961 + 0.46280I$ $b = 1.14330 - 1.25142I$	$-0.30303 + 6.28207I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.770010 + 0.372544I$ $a = 0.581630 - 0.055990I$ $b = 0.144106 + 0.825142I$	$-4.08900 + 2.25007I$	$3.53748 - 2.27099I$
$u = 0.770010 - 0.372544I$ $a = 0.581630 + 0.055990I$ $b = 0.144106 - 0.825142I$	$-4.08900 - 2.25007I$	$3.53748 + 2.27099I$
$u = -1.14498$ $a = 1.73239$ $b = 1.53512$	2.60015	-58.8670
$u = -0.268041 + 0.804909I$ $a = 0.542252 - 0.218224I$ $b = -0.423247 - 0.869174I$	$-0.98658 - 2.03464I$	$3.76283 + 3.73374I$
$u = -0.268041 - 0.804909I$ $a = 0.542252 + 0.218224I$ $b = -0.423247 + 0.869174I$	$-0.98658 + 2.03464I$	$3.76283 - 3.73374I$
$u = -0.656557 + 0.954242I$ $a = -0.493373 - 1.239310I$ $b = -0.00110 + 1.66937I$	$-0.681468 + 0.834270I$	0
$u = -0.656557 - 0.954242I$ $a = -0.493373 + 1.239310I$ $b = -0.00110 - 1.66937I$	$-0.681468 - 0.834270I$	0
$u = 0.825164 + 0.845513I$ $a = -1.40194 + 0.58938I$ $b = 0.92803 - 1.30897I$	$4.72221 + 4.24472I$	0
$u = 0.825164 - 0.845513I$ $a = -1.40194 - 0.58938I$ $b = 0.92803 + 1.30897I$	$4.72221 - 4.24472I$	0
$u = 1.068270 + 0.572212I$ $a = -0.776105 + 0.152158I$ $b = 0.735609 - 0.965380I$	$0.233976 + 0.759074I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.068270 - 0.572212I$ $a = -0.776105 - 0.152158I$ $b = 0.735609 + 0.965380I$	$0.233976 - 0.759074I$	0
$u = -0.819050 + 0.902886I$ $a = -1.25597 - 1.03649I$ $b = 0.75273 + 1.61897I$	$1.70243 - 3.06412I$	0
$u = -0.819050 - 0.902886I$ $a = -1.25597 + 1.03649I$ $b = 0.75273 - 1.61897I$	$1.70243 + 3.06412I$	0
$u = -0.532408 + 0.562547I$ $a = -0.491267 + 0.375201I$ $b = 0.05004 - 1.69837I$	$-6.45795 - 6.80158I$	$1.45639 + 9.56884I$
$u = -0.532408 - 0.562547I$ $a = -0.491267 - 0.375201I$ $b = 0.05004 + 1.69837I$	$-6.45795 + 6.80158I$	$1.45639 - 9.56884I$
$u = 0.763532 + 0.981407I$ $a = -0.747021 + 1.045390I$ $b = 0.29445 - 1.52258I$	$4.29081 + 1.75973I$	0
$u = 0.763532 - 0.981407I$ $a = -0.747021 - 1.045390I$ $b = 0.29445 + 1.52258I$	$4.29081 - 1.75973I$	0
$u = 0.031790 + 0.748955I$ $a = 1.337290 + 0.340343I$ $b = -1.69605 - 0.47490I$	$-2.07518 - 1.88050I$	$-0.58788 + 2.54582I$
$u = 0.031790 - 0.748955I$ $a = 1.337290 - 0.340343I$ $b = -1.69605 + 0.47490I$	$-2.07518 + 1.88050I$	$-0.58788 - 2.54582I$
$u = -1.026810 + 0.770847I$ $a = -0.931991 - 0.352914I$ $b = 0.727009 + 1.062520I$	$4.78970 - 2.73592I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.026810-0.770847I$ $a=-0.931991+0.352914I$ $b=\ \ 0.727009-1.062520I$	$4.78970+2.73592I$	0
$u=-0.076174+0.691781I$ $a=\ \ 1.76879-0.64957I$ $b=-2.25934+0.77220I$	$-8.05518+4.99038I$	$-5.61415+0.00335I$
$u=-0.076174-0.691781I$ $a=\ \ 1.76879+0.64957I$ $b=-2.25934-0.77220I$	$-8.05518-4.99038I$	$-5.61415-0.00335I$
$u=\ \ 0.403606+0.564847I$ $a=-0.472960+0.090622I$ $b=\ \ 0.124640+1.386760I$	$-0.86012+4.21216I$	$6.35099-11.74346I$
$u=\ \ 0.403606-0.564847I$ $a=-0.472960-0.090622I$ $b=\ \ 0.124640-1.386760I$	$-0.86012-4.21216I$	$6.35099+11.74346I$
$u=\ \ 0.019991+0.681568I$ $a=\ \ 0.664079-1.210490I$ $b=\ \ 0.074205-0.421986I$	$-1.57608-2.34912I$	$0.437437+0.644148I$
$u=\ \ 0.019991-0.681568I$ $a=\ \ 0.664079+1.210490I$ $b=\ \ 0.074205+0.421986I$	$-1.57608+2.34912I$	$0.437437-0.644148I$
$u=-0.316585+0.590067I$ $a=-3.02818+1.36465I$ $b=\ \ 1.287870+0.396140I$	$-7.54675-6.57227I$	$-0.27416+11.76800I$
$u=-0.316585-0.590067I$ $a=-3.02818-1.36465I$ $b=\ \ 1.287870-0.396140I$	$-7.54675+6.57227I$	$-0.27416-11.76800I$
$u=-1.075700+0.803829I$ $a=\ \ 1.005200+0.615424I$ $b=\ \ 0.311248-1.377500I$	$4.84131-0.55610I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.075700-0.803829I$ $a=\ \ 1.005200-0.615424I$ $b=\ \ 0.311248+1.377500I$	$4.84131+0.55610I$	0
$u=\ \ 0.902166+1.001410I$ $a=\ \ 1.057310-0.402054I$ $b=-0.42852+1.63869I$	$-4.61180+3.36092I$	0
$u=\ \ 0.902166-1.001410I$ $a=\ \ 1.057310+0.402054I$ $b=-0.42852-1.63869I$	$-4.61180-3.36092I$	0
$u=\ \ 1.093450+0.794950I$ $a=\ \ 0.905104-0.704207I$ $b=\ \ 0.255022+1.286370I$	$5.66823-4.85184I$	0
$u=\ \ 1.093450-0.794950I$ $a=\ \ 0.905104+0.704207I$ $b=\ \ 0.255022-1.286370I$	$5.66823+4.85184I$	0
$u=-1.121410+0.784623I$ $a=\ \ 0.828517+0.738103I$ $b=\ \ 0.236105-1.268720I$	$-0.59567+8.98753I$	0
$u=-1.121410-0.784623I$ $a=\ \ 0.828517-0.738103I$ $b=\ \ 0.236105+1.268720I$	$-0.59567-8.98753I$	0
$u=\ \ 0.436857+0.420062I$ $a=-1.56143-2.06163I$ $b=\ \ 1.015010-0.438737I$	$-0.46074+3.68809I$	$9.20342-10.39195I$
$u=\ \ 0.436857-0.420062I$ $a=-1.56143+2.06163I$ $b=\ \ 1.015010+0.438737I$	$-0.46074-3.68809I$	$9.20342+10.39195I$
$u=-0.89928+1.09857I$ $a=-0.710636-0.699922I$ $b=\ \ 0.373865+1.162200I$	$3.77288-4.30359I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.89928-1.09857I$ $a=-0.710636+0.699922I$ $b=\ \ 0.373865-1.162200I$	$3.77288+4.30359I$	0
$u=-0.08015+1.43152I$ $a=\ \ 0.111230-0.162640I$ $b=-0.744088+0.291066I$	$-3.91938-2.59263I$	0
$u=-0.08015-1.43152I$ $a=\ \ 0.111230+0.162640I$ $b=-0.744088-0.291066I$	$-3.91938+2.59263I$	0
$u=-0.91292+1.10722I$ $a=\ \ 1.054940+0.541284I$ $b=-0.76481-1.90183I$	$3.87345-6.65045I$	0
$u=-0.91292-1.10722I$ $a=\ \ 1.054940-0.541284I$ $b=-0.76481+1.90183I$	$3.87345+6.65045I$	0
$u=\ \ 0.90704+1.11763I$ $a=\ \ 1.107070-0.599871I$ $b=-0.87122+1.85913I$	$4.62505+12.08600I$	0
$u=\ \ 0.90704-1.11763I$ $a=\ \ 1.107070+0.599871I$ $b=-0.87122-1.85913I$	$4.62505-12.08600I$	0
$u=-0.90562+1.12890I$ $a=\ \ 1.159610+0.620259I$ $b=-0.92779-1.82023I$	$-1.7219-16.2840I$	0
$u=-0.90562-1.12890I$ $a=\ \ 1.159610-0.620259I$ $b=-0.92779+1.82023I$	$-1.7219+16.2840I$	0
$u=\ \ 1.13832+0.95435I$ $a=-0.791876+0.485812I$ $b=\ \ 0.603110-1.032090I$	$1.21898+4.01853I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.13832 - 0.95435I$ $a = -0.791876 - 0.485812I$ $b = 0.603110 + 1.032090I$	$1.21898 - 4.01853I$	0
$u = -0.491312 + 0.042330I$ $a = 0.813900 + 0.845312I$ $b = 0.487599 + 0.375306I$	$1.014060 + 0.126536I$	$10.90445 - 2.01322I$
$u = -0.491312 - 0.042330I$ $a = 0.813900 - 0.845312I$ $b = 0.487599 - 0.375306I$	$1.014060 - 0.126536I$	$10.90445 + 2.01322I$
$u = 0.89008 + 1.25065I$ $a = -0.591908 + 0.620866I$ $b = 0.274267 - 1.010060I$	$-1.81693 + 6.40974I$	0
$u = 0.89008 - 1.25065I$ $a = -0.591908 - 0.620866I$ $b = 0.274267 + 1.010060I$	$-1.81693 - 6.40974I$	0
$u = 0.17276 + 1.55205I$ $a = -0.088754 + 0.194039I$ $b = -0.414173 - 0.312547I$	$-10.80100 + 6.09312I$	0
$u = 0.17276 - 1.55205I$ $a = -0.088754 - 0.194039I$ $b = -0.414173 + 0.312547I$	$-10.80100 - 6.09312I$	0
$u = -0.165276 + 0.289045I$ $a = -1.72562 - 2.09252I$ $b = 0.875139 - 0.770810I$	$-2.39258 - 2.81193I$	$4.50166 + 4.86143I$
$u = -0.165276 - 0.289045I$ $a = -1.72562 + 2.09252I$ $b = 0.875139 + 0.770810I$	$-2.39258 + 2.81193I$	$4.50166 - 4.86143I$
$u = -0.137380$ $a = 6.75871$ $b = 0.782505$	1.05954	8.79670

II. $I_2^u = \langle 784u^{16} - 1472u^{15} + \cdots + 281b - 1616,\ -u^{16} - 4u^{14} + \cdots + a - 7,\ u^{17} - u^{16} + \cdots - u + 1\rangle$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_2 = \begin{pmatrix} u^{16} + 4u^{14} + \cdots + 2u + 7 \\ -2.79004u^{16} + 5.23843u^{15} + \cdots - 14.9786u + 5.75089 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -1.79004u^{16} + 5.23843u^{15} + \cdots - 12.9786u + 13.7509 \\ -1.61210u^{16} + 3.06762u^{15} + \cdots - 9.74021u + 3.30249 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -0.177936u^{16} + 2.17082u^{15} + \cdots - 3.23843u + 10.4484 \\ -1.61210u^{16} + 3.06762u^{15} + \cdots - 9.74021u + 3.30249 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 10.3025u^{16} - 9.69039u^{15} + \cdots + 43.5053u - 2.56228 \\ 1.84698u^{16} - 0.733096u^{15} + \cdots - 1.18505u + 4.82562 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -5.93594u^{16} + 10.8185u^{15} + \cdots - 36.4342u + 13.3986 \\ 1.53381u^{16} - 2.51246u^{15} + \cdots + 11.7153u - 5.34520 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u \\ u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 9.30249u^{16} - 8.69039u^{15} + \cdots + 34.5053u - 1.56228 \\ -0.00711744u^{16} + 0.686833u^{15} + \cdots - 5.72954u + 2.17794 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -2.48754u^{16} - 1.45196u^{15} + \cdots + 10.5267u - 19.8114 \\ 4.92171u^{16} - 4.44484u^{15} + \cdots + 15.9751u + 0.957295 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{2928}{281}u^{16} - \frac{7172}{281}u^{15} + \cdots + \frac{18839}{281}u - \frac{13628}{281}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{17} - 7u^{16} + \cdots + 7u - 1$
c_2	$u^{17} + 10u^{16} + \cdots + 7u + 1$
c_3	$u^{17} - 3u^{16} + \cdots + u - 1$
c_4	$u^{17} + 4u^{15} + \cdots + 3u - 1$
c_5	$u^{17} - u^{16} + \cdots - u + 1$
c_6, c_7	$u^{17} + u^{16} + \cdots + 2u + 1$
c_8	$u^{17} + 3u^{16} + \cdots + 4u^2 + 1$
c_9, c_{10}	$u^{17} + u^{16} + \cdots - u - 1$
c_{11}	$u^{17} - 2u^{16} + \cdots - 6u + 1$
c_{12}	$u^{17} - u^{16} + \cdots + 2u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{17} - 5y^{16} + \cdots + 17y - 1$
c_2	$y^{17} - 8y^{16} + \cdots - 9y - 1$
c_3	$y^{17} + 9y^{16} + \cdots - 13y - 1$
c_4	$y^{17} + 8y^{16} + \cdots + 11y - 1$
c_5, c_9, c_{10}	$y^{17} + 9y^{16} + \cdots - 17y - 1$
c_6, c_7, c_{12}	$y^{17} + 17y^{16} + \cdots - 24y - 1$
c_8	$y^{17} - 11y^{16} + \cdots - 8y - 1$
c_{11}	$y^{17} - 8y^{16} + \cdots - 14y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.09099$ $a=-1.84015$ $b=-1.44593$	2.66549	64.1610
$u=0.081066+0.881798I$ $a=0.253907+0.232514I$ $b=0.351765-1.188740I$	$-3.35095-1.89433I$	$0.39933+2.13556I$
$u=0.081066-0.881798I$ $a=0.253907-0.232514I$ $b=0.351765+1.188740I$	$-3.35095+1.89433I$	$0.39933-2.13556I$
$u=0.759591+0.834731I$ $a=-0.926163+0.781600I$ $b=-0.031880-0.497291I$	$-2.84481+5.18632I$	$2.68899-3.82989I$
$u=0.759591-0.834731I$ $a=-0.926163-0.781600I$ $b=-0.031880+0.497291I$	$-2.84481-5.18632I$	$2.68899+3.82989I$
$u=0.945692+0.860913I$ $a=-1.057260+0.608745I$ $b=0.856724-1.108260I$	$0.63478+3.45959I$	$1.40689-2.05093I$
$u=0.945692-0.860913I$ $a=-1.057260-0.608745I$ $b=0.856724+1.108260I$	$0.63478-3.45959I$	$1.40689+2.05093I$
$u=-0.924682+0.905753I$ $a=-1.012340-0.596735I$ $b=0.607612+1.271600I$	$4.25625-3.38186I$	$8.68961+3.41215I$
$u=-0.924682-0.905753I$ $a=-1.012340+0.596735I$ $b=0.607612-1.271600I$	$4.25625+3.38186I$	$8.68961-3.41215I$
$u=-0.012323+1.348120I$ $a=-0.449907-0.010058I$ $b=1.089120-0.269541I$	$-4.38848-2.75040I$	$-5.64109+6.59552I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.012323-1.348120I$ $a=-0.449907+0.010058I$ $b=\ \ 1.089120+0.269541I$	$-4.38848+2.75040I$	$-5.64109-6.59552I$
$u=\ \ 0.089446+0.606473I$ $a=\ \ 1.54762+0.76818I$ $b=-0.646460+0.884390I$	$-1.35598+3.18194I$	$1.32413-8.23419I$
$u=\ \ 0.089446-0.606473I$ $a=\ \ 1.54762-0.76818I$ $b=-0.646460-0.884390I$	$-1.35598-3.18194I$	$1.32413+8.23419I$
$u=\ \ 0.121328+1.408910I$ $a=-0.507302+0.085491I$ $b=\ \ 0.851353+0.138665I$	$-11.43630+6.17014I$	$-6.02947-4.38565I$
$u=\ \ 0.121328-1.408910I$ $a=-0.507302-0.085491I$ $b=\ \ 0.851353-0.138665I$	$-11.43630-6.17014I$	$-6.02947+4.38565I$
$u=-0.014622+0.494941I$ $a=\ \ 3.07152-0.24078I$ $b=-1.35527-1.02921I$	$-7.52130-5.63580I$	$0.08114+5.24551I$
$u=-0.014622-0.494941I$ $a=\ \ 3.07152+0.24078I$ $b=-1.35527+1.02921I$	$-7.52130+5.63580I$	$0.08114-5.24551I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{17}-7u^{16}+\cdots+7u-1)(u^{70}-8u^{69}+\cdots+54u+9)$
c_2	$(u^{17}+10u^{16}+\cdots+7u+1)(u^{70}-7u^{69}+\cdots+9260u-7239)$
c_3	$(u^{17}-3u^{16}+\cdots+u-1)(u^{70}+2u^{69}+\cdots+564u+41)$
c_4	$(u^{17}+4u^{15}+\cdots+3u-1)(u^{70}-u^{69}+\cdots-22u-1)$
c_5	$(u^{17}-u^{16}+\cdots-u+1)(u^{70}+8u^{68}+\cdots-12u+1)$
c_6, c_7	$(u^{17}+u^{16}+\cdots+2u+1)(u^{70}+34u^{68}+\cdots+17u+3)$
c_8	$(u^{17}+3u^{16}+\cdots+4u^2+1)(u^{70}-2u^{69}+\cdots+4105u+2083)$
c_9, c_{10}	$(u^{17}+u^{16}+\cdots-u-1)(u^{70}+8u^{68}+\cdots-12u+1)$
c_{11}	$(u^{17}-2u^{16}+\cdots-6u+1)(u^{70}+u^{69}+\cdots-329u+1651)$
c_{12}	$(u^{17}-u^{16}+\cdots+2u-1)(u^{70}+34u^{68}+\cdots+17u+3)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{17}-5y^{16}+\cdots+17y-1)(y^{70}-10y^{69}+\cdots-144y+81)$
c_2	$(y^{17}-8y^{16}+\cdots-9y-1)$ $\cdot(y^{70}-61y^{69}+\cdots-1022459722y+52403121)$
c_3	$(y^{17}+9y^{16}+\cdots-13y-1)(y^{70}+12y^{69}+\cdots-24782y+1681)$
c_4	$(y^{17}+8y^{16}+\cdots+11y-1)(y^{70}+7y^{69}+\cdots+122y+1)$
c_5, c_9, c_{10}	$(y^{17}+9y^{16}+\cdots-17y-1)(y^{70}+16y^{69}+\cdots-30y+1)$
c_6, c_7, c_{12}	$(y^{17}+17y^{16}+\cdots-24y-1)(y^{70}+68y^{69}+\cdots-223y+9)$
c_8	$(y^{17}-11y^{16}+\cdots-8y-1)$ $\cdot(y^{70}+12y^{69}+\cdots+246685969y+4338889)$
c_{11}	$(y^{17}-8y^{16}+\cdots-14y-1)$ $\cdot(y^{70}-65y^{69}+\cdots-76523125y+2725801)$