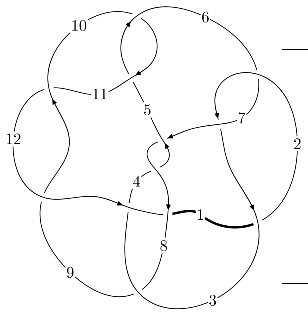
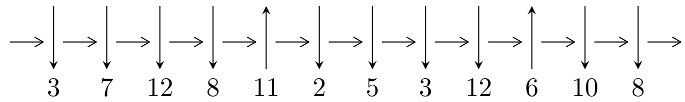
$12n_{0557}$ ($K12n_{0557}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -1.02105\times10^{101}u^{67} - 4.63803\times10^{101}u^{66} + \cdots + 1.96878\times10^{102}b - 8.88022\times10^{101},$$
$$1.26302\times10^{102}u^{67} + 8.85176\times10^{101}u^{66} + \cdots + 1.96878\times10^{102}a + 1.15700\times10^{102},\ u^{68} + u^{67} + \cdots + u -$$
$$I_2^u = \langle -5u^{19} + 33u^{17} + \cdots + b + 11u,\ -11u^{18} - 2u^{17} + \cdots + a + 29,\ u^{20} - 7u^{18} + \cdots + u + 1\rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 88 representations.

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[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. $\boldsymbol{I^u_1 = \langle -1.02 \times 10^{101} u^{67} - 4.64 \times 10^{101} u^{66} + \cdots + 1.97 \times 10^{102} b - 8.88 \times 10^{101},\ 1.26 \times 10^{102} u^{67} + 8.85 \times 10^{101} u^{66} + \cdots + 1.97 \times 10^{102} a + 1.16 \times 10^{102},\ u^{68} + u^{67} + \cdots + u - 1 \rangle}$

(i) Arc colorings

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

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

$$a_7 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

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

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

$$a_{11} = \begin{pmatrix} -0.641523u^{67} - 0.449607u^{66} + \cdots + 0.395110u - 0.587676 \\ 0.0518621u^{67} + 0.235579u^{66} + \cdots - 1.81551u + 0.451053 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.458253u^{67} - 0.528500u^{66} + \cdots + 2.40287u - 0.615703 \\ 0.243980u^{67} + 0.462555u^{66} + \cdots - 2.28263u - 0.185736 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.141644u^{67} - 0.134104u^{66} + \cdots - 1.04997u + 2.16525 \\ -0.308718u^{67} - 0.377649u^{66} + \cdots + 1.18451u - 1.47282 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.736347u^{67} + 0.739432u^{66} + \cdots + 0.595559u - 0.749166 \\ -0.210641u^{67} - 0.118772u^{66} + \cdots + 0.845338u + 0.371913 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.693385u^{67} - 0.685186u^{66} + \cdots + 2.21062u - 1.03873 \\ 0.0518621u^{67} + 0.235579u^{66} + \cdots - 1.81551u + 0.451053 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.704846u^{67} - 1.06386u^{66} + \cdots + 4.02275u - 0.154197 \\ 0.263760u^{67} + 0.386209u^{66} + \cdots - 1.73388u - 0.866876 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.147546u^{67} - 0.0835648u^{66} + \cdots - 1.04362u + 2.37990 \\ -0.325349u^{67} - 0.435020u^{66} + \cdots + 1.13942u - 1.64284 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.626539u^{67} - 1.34740u^{66} + \cdots + 9.36366u - 10.4358$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{68} + 37u^{67} + \cdots - u + 1$
c_2, c_6	$u^{68} - u^{67} + \cdots - u - 1$
c_3	$u^{68} - 3u^{67} + \cdots - 5590u - 1393$
c_4, c_7	$u^{68} - 2u^{67} + \cdots + 682u + 107$
c_5, c_{10}	$u^{68} + u^{67} + \cdots - 5u + 1$
c_8	$u^{68} + u^{67} + \cdots - 2029u - 1341$
c_9, c_{11}	$u^{68} + 25u^{67} + \cdots - 57u + 1$
c_{12}	$u^{68} - 3u^{67} + \cdots + 2287u + 121$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{68} + 3y^{67} + \cdots + 105y + 1$
c_2, c_6	$y^{68} - 37y^{67} + \cdots + y + 1$
c_3	$y^{68} - 69y^{67} + \cdots - 13063878y + 1940449$
c_4, c_7	$y^{68} + 28y^{67} + \cdots - 23856y + 11449$
c_5, c_{10}	$y^{68} + 25y^{67} + \cdots - 57y + 1$
c_8	$y^{68} - 67y^{67} + \cdots + 17462531y + 1798281$
c_9, c_{11}	$y^{68} + 45y^{67} + \cdots - 977y + 1$
c_{12}	$y^{68} - 75y^{67} + \cdots - 4777829y + 14641$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.940907 + 0.259610I$ $a = 0.42197 - 2.48976I$ $b = -0.159587 - 1.033910I$	$-0.93999 - 1.07351I$	$-13.16109 - 0.94732I$
$u = 0.940907 - 0.259610I$ $a = 0.42197 + 2.48976I$ $b = -0.159587 + 1.033910I$	$-0.93999 + 1.07351I$	$-13.16109 + 0.94732I$
$u = -1.043650 + 0.145685I$ $a = -0.39955 + 2.55386I$ $b = 0.275203 + 0.962008I$	$-3.76897 + 2.72988I$	$-8.00000 - 5.48520I$
$u = -1.043650 - 0.145685I$ $a = -0.39955 - 2.55386I$ $b = 0.275203 - 0.962008I$	$-3.76897 - 2.72988I$	$-8.00000 + 5.48520I$
$u = 0.885464 + 0.597578I$ $a = 0.75942 + 1.75588I$ $b = 0.093114 + 0.992704I$	$-1.11071 - 2.33001I$	0
$u = 0.885464 - 0.597578I$ $a = 0.75942 - 1.75588I$ $b = 0.093114 - 0.992704I$	$-1.11071 + 2.33001I$	0
$u = -1.004080 + 0.415754I$ $a = 0.232891 - 0.695090I$ $b = -0.812580 + 0.667456I$	$-4.35054 + 1.56377I$	0
$u = -1.004080 - 0.415754I$ $a = 0.232891 + 0.695090I$ $b = -0.812580 - 0.667456I$	$-4.35054 - 1.56377I$	0
$u = -0.876146 + 0.645556I$ $a = 0.163390 + 0.383509I$ $b = -0.159247 - 0.049954I$	$2.13037 + 2.54033I$	0
$u = -0.876146 - 0.645556I$ $a = 0.163390 - 0.383509I$ $b = -0.159247 + 0.049954I$	$2.13037 - 2.54033I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.399517 + 1.015870I$ $a = 0.654911 + 0.379579I$ $b = -0.849945 + 0.659975I$	$0.65883 + 3.48006I$	0
$u = 0.399517 - 1.015870I$ $a = 0.654911 - 0.379579I$ $b = -0.849945 - 0.659975I$	$0.65883 - 3.48006I$	0
$u = -1.037540 + 0.398544I$ $a = -0.14880 + 1.55501I$ $b = -0.576579 + 1.193350I$	$-6.36651 - 0.81288I$	0
$u = -1.037540 - 0.398544I$ $a = -0.14880 - 1.55501I$ $b = -0.576579 - 1.193350I$	$-6.36651 + 0.81288I$	0
$u = 0.716409 + 0.891799I$ $a = 0.500992 - 0.440317I$ $b = -0.674233 - 0.922387I$	$3.29939 + 2.00709I$	0
$u = 0.716409 - 0.891799I$ $a = 0.500992 + 0.440317I$ $b = -0.674233 + 0.922387I$	$3.29939 - 2.00709I$	0
$u = -0.342929 + 1.097870I$ $a = 0.556771 + 0.538161I$ $b = -0.723860 + 1.040460I$	$-0.50810 - 9.35376I$	0
$u = -0.342929 - 1.097870I$ $a = 0.556771 - 0.538161I$ $b = -0.723860 - 1.040460I$	$-0.50810 + 9.35376I$	0
$u = -0.098391 + 0.835496I$ $a = 0.643296 - 0.760427I$ $b = 0.141512 - 1.090530I$	$-6.10032 - 3.11040I$	$-10.83046 + 2.94729I$
$u = -0.098391 - 0.835496I$ $a = 0.643296 + 0.760427I$ $b = 0.141512 + 1.090530I$	$-6.10032 + 3.11040I$	$-10.83046 - 2.94729I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.046410 + 0.508419I$ $a = -0.132346 + 0.527696I$ $b = -0.940830 + 0.317450I$	$-3.60038 - 4.71726I$	0
$u = 1.046410 - 0.508419I$ $a = -0.132346 - 0.527696I$ $b = -0.940830 - 0.317450I$	$-3.60038 + 4.71726I$	0
$u = -0.768060 + 0.318425I$ $a = -2.70476 + 2.59441I$ $b = 0.549168 + 0.792945I$	$-3.34454 + 1.57597I$	$-9.61436 - 5.33785I$
$u = -0.768060 - 0.318425I$ $a = -2.70476 - 2.59441I$ $b = 0.549168 - 0.792945I$	$-3.34454 - 1.57597I$	$-9.61436 + 5.33785I$
$u = 1.047410 + 0.527364I$ $a = 1.61700 + 1.10646I$ $b = -0.706839 + 1.027240I$	$-5.45556 - 7.28309I$	0
$u = 1.047410 - 0.527364I$ $a = 1.61700 - 1.10646I$ $b = -0.706839 - 1.027240I$	$-5.45556 + 7.28309I$	0
$u = 1.083690 + 0.530024I$ $a = -0.553710 - 0.091586I$ $b = -0.851770 - 0.802509I$	$3.49437 - 0.97425I$	0
$u = 1.083690 - 0.530024I$ $a = -0.553710 + 0.091586I$ $b = -0.851770 + 0.802509I$	$3.49437 + 0.97425I$	0
$u = -0.934372 + 0.781624I$ $a = 0.053522 + 0.417489I$ $b = 0.680894 - 0.644957I$	$3.42338 + 2.92327I$	0
$u = -0.934372 - 0.781624I$ $a = 0.053522 - 0.417489I$ $b = 0.680894 + 0.644957I$	$3.42338 - 2.92327I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.841651 + 0.883672I$ $a = 0.868517 - 0.485589I$ $b = -0.677512 - 0.774206I$	$3.75199 + 3.22331I$	0
$u = -0.841651 - 0.883672I$ $a = 0.868517 + 0.485589I$ $b = -0.677512 + 0.774206I$	$3.75199 - 3.22331I$	0
$u = 0.548357 + 0.532260I$ $a = -0.28832 - 1.56425I$ $b = 0.576815 + 0.947312I$	$-3.88368 + 2.91929I$	$-8.58150 - 1.60014I$
$u = 0.548357 - 0.532260I$ $a = -0.28832 + 1.56425I$ $b = 0.576815 - 0.947312I$	$-3.88368 - 2.91929I$	$-8.58150 + 1.60014I$
$u = -1.24899$ $a = -1.01889$ $b = 0.341297$	-6.77611	0
$u = 0.750601$ $a = 0.454925$ $b = 0.481221$	-1.11068	-8.83830
$u = -1.157710 + 0.488774I$ $a = 0.89610 - 1.78056I$ $b = -0.790649 - 0.975806I$	$2.95487 + 7.09497I$	0
$u = -1.157710 - 0.488774I$ $a = 0.89610 + 1.78056I$ $b = -0.790649 + 0.975806I$	$2.95487 - 7.09497I$	0
$u = 1.019200 + 0.755143I$ $a = -1.43617 - 1.55373I$ $b = 0.644876 - 1.003110I$	$2.34696 - 8.08537I$	0
$u = 1.019200 - 0.755143I$ $a = -1.43617 + 1.55373I$ $b = 0.644876 + 1.003110I$	$2.34696 + 8.08537I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.137780+0.597361I$ $a=-0.680702+0.371018I$ $b=-0.611829+0.671402I$	$2.91478+2.04568I$	0
$u=-1.137780-0.597361I$ $a=-0.680702-0.371018I$ $b=-0.611829-0.671402I$	$2.91478-2.04568I$	0
$u=\ \ 1.210900+0.474728I$ $a=\ \ 0.58877+2.13386I$ $b=-0.619959+0.991046I$	$1.92170-6.94863I$	0
$u=\ \ 1.210900-0.474728I$ $a=\ \ 0.58877-2.13386I$ $b=-0.619959-0.991046I$	$1.92170+6.94863I$	0
$u=-1.188350+0.530219I$ $a=\ \ 0.57443-1.99425I$ $b=-0.133485-1.246610I$	$-9.23070+8.01469I$	0
$u=-1.188350-0.530219I$ $a=\ \ 0.57443+1.99425I$ $b=-0.133485+1.246610I$	$-9.23070-8.01469I$	0
$u=\ \ 0.444105+0.517971I$ $a=\ \ 0.608976-0.934274I$ $b=\ \ 0.732751+0.181612I$	$-1.85955+0.48121I$	$-4.42539+0.48875I$
$u=\ \ 0.444105-0.517971I$ $a=\ \ 0.608976+0.934274I$ $b=\ \ 0.732751-0.181612I$	$-1.85955-0.48121I$	$-4.42539-0.48875I$
$u=-0.172980+0.644207I$ $a=-0.086216+0.618638I$ $b=\ \ 0.742213+0.849423I$	$5.46513+2.81095I$	$-4.67462-2.60873I$
$u=-0.172980-0.644207I$ $a=-0.086216-0.618638I$ $b=\ \ 0.742213-0.849423I$	$5.46513-2.81095I$	$-4.67462+2.60873I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.312170 + 0.378943I$ $a = -0.96232 - 1.62440I$ $b = 0.069729 - 1.052040I$	$-10.44160 - 1.32359I$	0
$u = 1.312170 - 0.378943I$ $a = -0.96232 + 1.62440I$ $b = 0.069729 + 1.052040I$	$-10.44160 + 1.32359I$	0
$u = -0.587051 + 0.229586I$ $a = -0.76768 + 3.66509I$ $b = 0.455736 + 1.134590I$	$-4.71625 + 3.83876I$	$-6.01425 - 8.08352I$
$u = -0.587051 - 0.229586I$ $a = -0.76768 - 3.66509I$ $b = 0.455736 - 1.134590I$	$-4.71625 - 3.83876I$	$-6.01425 + 8.08352I$
$u = 1.192260 + 0.675113I$ $a = 0.403435 - 0.199397I$ $b = 0.934236 + 0.605763I$	$-1.79071 - 9.57598I$	0
$u = 1.192260 - 0.675113I$ $a = 0.403435 + 0.199397I$ $b = 0.934236 - 0.605763I$	$-1.79071 + 9.57598I$	0
$u = -1.24627 + 0.68565I$ $a = -1.04436 + 1.71892I$ $b = 0.735262 + 1.096550I$	$-3.3132 + 15.7131I$	0
$u = -1.24627 - 0.68565I$ $a = -1.04436 - 1.71892I$ $b = 0.735262 - 1.096550I$	$-3.3132 - 15.7131I$	0
$u = -1.49863 + 0.14703I$ $a = -0.238266 + 1.256530I$ $b = 0.643640 + 0.677255I$	$-6.04640 + 0.52618I$	0
$u = -1.49863 - 0.14703I$ $a = -0.238266 - 1.256530I$ $b = 0.643640 - 0.677255I$	$-6.04640 - 0.52618I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.52986 + 0.24219I$ $a = 0.175494 + 1.248290I$ $b = 0.639173 + 0.989620I$	$-7.00901 + 4.52551I$	0
$u = 1.52986 - 0.24219I$ $a = 0.175494 - 1.248290I$ $b = 0.639173 - 0.989620I$	$-7.00901 - 4.52551I$	0
$u = 0.337839 + 0.292985I$ $a = -1.63156 - 0.79539I$ $b = 0.841620 - 0.916425I$	$5.70133 - 3.16227I$	$-8.17605 + 1.97963I$
$u = 0.337839 - 0.292985I$ $a = -1.63156 + 0.79539I$ $b = 0.841620 + 0.916425I$	$5.70133 + 3.16227I$	$-8.17605 - 1.97963I$
$u = 0.147872 + 0.344296I$ $a = 0.999072 + 0.433594I$ $b = -0.214633 + 0.698481I$	$-0.427609 - 1.011650I$	$-6.71477 + 6.54763I$
$u = 0.147872 - 0.344296I$ $a = 0.999072 - 0.433594I$ $b = -0.214633 - 0.698481I$	$-0.427609 + 1.011650I$	$-6.71477 - 6.54763I$
$u = -0.177594 + 0.322240I$ $a = -0.862215 + 0.770131I$ $b = 0.836335 - 0.904083I$	$5.73139 - 3.08529I$	$-6.85812 + 5.06126I$
$u = -0.177594 - 0.322240I$ $a = -0.862215 - 0.770131I$ $b = 0.836335 + 0.904083I$	$5.73139 + 3.08529I$	$-6.85812 - 5.06126I$

II. $\boldsymbol{I_2^u =}$
$\boldsymbol{\langle -5u^{19}+33u^{17}+\cdots+b+11u,\ -11u^{18}-2u^{17}+\cdots+a+29,\ u^{20}-7u^{18}+\cdots+u+1\rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u \\ -u^3+u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^3 \\ u^5-u^3+u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 11u^{18}+2u^{17}+\cdots-16u-29 \\ 5u^{19}-33u^{17}+\cdots-11u^2-11u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -3u^{19}+18u^{17}+\cdots-3u+1 \\ -4u^{19}+26u^{17}+\cdots+9u-1 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u^{19}+7u^{17}+\cdots+2u-6 \\ u^{19}-2u^{18}+\cdots-32u^2+6 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} 3u^{19}-u^{18}+\cdots-20u+8 \\ -8u^{19}+u^{18}+\cdots+14u-6 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -5u^{19}+11u^{18}+\cdots-5u-29 \\ 5u^{19}-33u^{17}+\cdots-11u^2-11u \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -5u^{19}+u^{18}+\cdots+17u-7 \\ 5u^{19}-u^{18}+\cdots-6u+5 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u^{19}+u^{18}+\cdots+u-7 \\ u^{19}-2u^{18}+\cdots-33u^2+6 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes
$= -2u^{19}+4u^{18}+12u^{17}-29u^{16}-32u^{15}+101u^{14}+46u^{13}-224u^{12}-25u^{11}+343u^{10}-29u^9-382u^8+73u^7+319u^6-76u^5-197u^4+45u^3+92u^2-18u-33$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{20} - 14u^{19} + \cdots - 15u + 1$
c_2	$u^{20} - 7u^{18} + \cdots - u + 1$
c_3	$u^{20} + 6u^{19} + \cdots + 6u + 1$
c_4	$u^{20} - u^{19} + \cdots - 4u^2 + 1$
c_5	$u^{20} + 4u^{18} + \cdots + u + 1$
c_6	$u^{20} - 7u^{18} + \cdots + u + 1$
c_7	$u^{20} + u^{19} + \cdots - 4u^2 + 1$
c_8	$u^{20} - 4u^{18} + \cdots - u + 1$
c_9	$u^{20} - 8u^{19} + \cdots - 11u + 1$
c_{10}	$u^{20} + 4u^{18} + \cdots - u + 1$
c_{11}	$u^{20} + 8u^{19} + \cdots + 11u + 1$
c_{12}	$u^{20} + 4u^{19} + \cdots + 3u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{20} - 2y^{19} + \cdots - 15y + 1$
c_2, c_6	$y^{20} - 14y^{19} + \cdots - 15y + 1$
c_3	$y^{20} - 14y^{19} + \cdots + 6y + 1$
c_4, c_7	$y^{20} + 11y^{19} + \cdots - 8y + 1$
c_5, c_{10}	$y^{20} + 8y^{19} + \cdots + 11y + 1$
c_8	$y^{20} - 8y^{19} + \cdots + 11y + 1$
c_9, c_{11}	$y^{20} + 16y^{19} + \cdots - y + 1$
c_{12}	$y^{20} - 12y^{19} + \cdots + 63y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.916596 + 0.501656I$ $a = -0.23575 + 2.17377I$ $b = -0.084408 + 0.989106I$	$-0.08561 + 2.00156I$	$-7.02876 - 3.01759I$
$u = -0.916596 - 0.501656I$ $a = -0.23575 - 2.17377I$ $b = -0.084408 - 0.989106I$	$-0.08561 - 2.00156I$	$-7.02876 + 3.01759I$
$u = 0.619099 + 0.623336I$ $a = -0.745100 - 0.435517I$ $b = 0.837623 - 0.852995I$	$6.36763 - 3.79706I$	$-1.32350 + 7.18577I$
$u = 0.619099 - 0.623336I$ $a = -0.745100 + 0.435517I$ $b = 0.837623 + 0.852995I$	$6.36763 + 3.79706I$	$-1.32350 - 7.18577I$
$u = 0.893965 + 0.712196I$ $a = 0.533393 + 0.189780I$ $b = -0.077110 + 0.595222I$	$1.54640 - 2.72061I$	$-12.89369 + 5.24622I$
$u = 0.893965 - 0.712196I$ $a = 0.533393 - 0.189780I$ $b = -0.077110 - 0.595222I$	$1.54640 + 2.72061I$	$-12.89369 - 5.24622I$
$u = -0.592080 + 0.540578I$ $a = -0.450432 - 0.379257I$ $b = 0.815442 - 0.949836I$	$6.07415 - 2.37360I$	$-2.82617 - 3.06916I$
$u = -0.592080 - 0.540578I$ $a = -0.450432 + 0.379257I$ $b = 0.815442 + 0.949836I$	$6.07415 + 2.37360I$	$-2.82617 + 3.06916I$
$u = -1.139700 + 0.603954I$ $a = 0.97885 - 1.81385I$ $b = -0.733487 - 0.971689I$	$4.22590 + 7.07154I$	$-3.35111 - 5.96009I$
$u = -1.139700 - 0.603954I$ $a = 0.97885 + 1.81385I$ $b = -0.733487 + 0.971689I$	$4.22590 - 7.07154I$	$-3.35111 + 5.96009I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.104760 + 0.669023I$ $a = -0.476179 - 0.045276I$ $b = -0.774786 - 0.785443I$	$4.80560 - 1.34863I$	$-2.53819 + 0.59167I$
$u = 1.104760 - 0.669023I$ $a = -0.476179 + 0.045276I$ $b = -0.774786 + 0.785443I$	$4.80560 + 1.34863I$	$-2.53819 - 0.59167I$
$u = 1.303610 + 0.049480I$ $a = 0.089962 + 1.123820I$ $b = 0.496270 + 1.018040I$	$-7.77106 + 3.02337I$	$-12.40469 - 2.49345I$
$u = 1.303610 - 0.049480I$ $a = 0.089962 - 1.123820I$ $b = 0.496270 - 1.018040I$	$-7.77106 - 3.02337I$	$-12.40469 + 2.49345I$
$u = 0.678501 + 0.066867I$ $a = 0.90337 + 4.20276I$ $b = -0.482156 + 1.088980I$	$-5.21524 - 3.52525I$	$-18.2464 + 1.7590I$
$u = 0.678501 - 0.066867I$ $a = 0.90337 - 4.20276I$ $b = -0.482156 - 1.088980I$	$-5.21524 + 3.52525I$	$-18.2464 - 1.7590I$
$u = -1.368110 + 0.049620I$ $a = -0.68949 + 1.67187I$ $b = 0.501119 + 0.678815I$	$-6.60360 + 1.07496I$	$-13.9720 - 6.3109I$
$u = -1.368110 - 0.049620I$ $a = -0.68949 - 1.67187I$ $b = 0.501119 - 0.678815I$	$-6.60360 - 1.07496I$	$-13.9720 + 6.3109I$
$u = -0.583436 + 0.055335I$ $a = -2.40862 - 1.94316I$ $b = -0.498506 + 0.538267I$	$-3.34415 - 0.58323I$	$-10.41549 - 1.69535I$
$u = -0.583436 - 0.055335I$ $a = -2.40862 + 1.94316I$ $b = -0.498506 - 0.538267I$	$-3.34415 + 0.58323I$	$-10.41549 + 1.69535I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{20} - 14u^{19} + \cdots - 15u + 1)(u^{68} + 37u^{67} + \cdots - u + 1)$
c_2	$(u^{20} - 7u^{18} + \cdots - u + 1)(u^{68} - u^{67} + \cdots - u - 1)$
c_3	$(u^{20} + 6u^{19} + \cdots + 6u + 1)(u^{68} - 3u^{67} + \cdots - 5590u - 1393)$
c_4	$(u^{20} - u^{19} + \cdots - 4u^2 + 1)(u^{68} - 2u^{67} + \cdots + 682u + 107)$
c_5	$(u^{20} + 4u^{18} + \cdots + u + 1)(u^{68} + u^{67} + \cdots - 5u + 1)$
c_6	$(u^{20} - 7u^{18} + \cdots + u + 1)(u^{68} - u^{67} + \cdots - u - 1)$
c_7	$(u^{20} + u^{19} + \cdots - 4u^2 + 1)(u^{68} - 2u^{67} + \cdots + 682u + 107)$
c_8	$(u^{20} - 4u^{18} + \cdots - u + 1)(u^{68} + u^{67} + \cdots - 2029u - 1341)$
c_9	$(u^{20} - 8u^{19} + \cdots - 11u + 1)(u^{68} + 25u^{67} + \cdots - 57u + 1)$
c_{10}	$(u^{20} + 4u^{18} + \cdots - u + 1)(u^{68} + u^{67} + \cdots - 5u + 1)$
c_{11}	$(u^{20} + 8u^{19} + \cdots + 11u + 1)(u^{68} + 25u^{67} + \cdots - 57u + 1)$
c_{12}	$(u^{20} + 4u^{19} + \cdots + 3u + 1)(u^{68} - 3u^{67} + \cdots + 2287u + 121)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{20} - 2y^{19} + \cdots - 15y + 1)(y^{68} + 3y^{67} + \cdots + 105y + 1)$
c_2, c_6	$(y^{20} - 14y^{19} + \cdots - 15y + 1)(y^{68} - 37y^{67} + \cdots + y + 1)$
c_3	$(y^{20} - 14y^{19} + \cdots + 6y + 1)$ $\cdot (y^{68} - 69y^{67} + \cdots - 13063878y + 1940449)$
c_4, c_7	$(y^{20} + 11y^{19} + \cdots - 8y + 1)(y^{68} + 28y^{67} + \cdots - 23856y + 11449)$
c_5, c_{10}	$(y^{20} + 8y^{19} + \cdots + 11y + 1)(y^{68} + 25y^{67} + \cdots - 57y + 1)$
c_8	$(y^{20} - 8y^{19} + \cdots + 11y + 1)$ $\cdot (y^{68} - 67y^{67} + \cdots + 17462531y + 1798281)$
c_9, c_{11}	$(y^{20} + 16y^{19} + \cdots - y + 1)(y^{68} + 45y^{67} + \cdots - 977y + 1)$
c_{12}	$(y^{20} - 12y^{19} + \cdots + 63y + 1)(y^{68} - 75y^{67} + \cdots - 4777829y + 14641)$