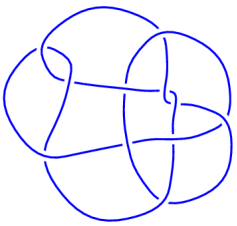
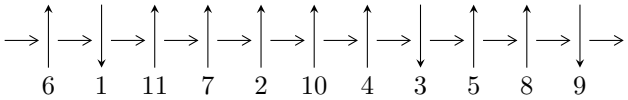
$11a_{136}$ $(K11a_{136})$



1

Arc Sequences



Solving Sequence

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

Representation Ideals

$$I = \bigcap_{i=1}^{2} I_i^u$$

$I_1^u = \langle u^{17} + u^{16} + 4u^{15} + 4u^{14} + 9u^{13} + 9u^{12} + 12u^{11} + 14u^{10} + 11u^9 + 15u^8 + 6u^7 + 13u^6 + 2u^5 + 8u^4 + 3u^2 + 1$
$15u^{16} + 21u^{15} + \cdots + 11b + 23,\ -15u^{16} - 32u^{15} + \cdots + 11a - 23\rangle$

$I_2^u = \langle u^{98} + 2u^{97} + \cdots + 37u + 13,$
$2.75880 \times 10^{143} u^{97} + 5.17708 \times 10^{143} u^{96} + \cdots + 1.58059 \times 10^{143} b + 3.46727 \times 10^{144},$
$-1.73522 \times 10^{144} u^{97} - 3.35839 \times 10^{144} u^{96} + \cdots + 2.05476 \times 10^{144} a - 3.10174 \times 10^{145}\rangle$

There are 2 irreducible components with 115 representations.

[1] The knot diagram image is adapter from "C. Livingston and A. H. Moore, KnotInfo: Table of Knot Invariants, http://www.indiana.edu/ knotinfo"

I. $\boldsymbol{I_1^u = \langle u^{17}+u^{16}+\cdots+3u^2+1,\ 15u^{16}+21u^{15}+\cdots+11b+23,\ -15u^{16}-32u^{15}+\cdots+11a-23\rangle}$

(i) Arc colorings

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

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

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

$$a_3 = \begin{pmatrix} u^2+1 \\ u^4 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -u \\ u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1.36364u^{16}+2.90909u^{15}+\cdots+0.727273u+2.09091 \\ -1.36364u^{16}-1.90909u^{15}+\cdots-0.727273u-2.09091 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 1.36364u^{16}+2.90909u^{15}+\cdots+0.727273u+1.09091 \\ -1.36364u^{16}-1.90909u^{15}+\cdots-0.727273u-1.09091 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.454545u^{16}-1.63636u^{15}+\cdots-0.909091u-0.363636 \\ -1.27273u^{16}-0.181818u^{15}+\cdots-1.54545u+1.18182 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -2u^{15}-3u^{14}+\cdots-u-1 \\ 0.0909091u^{16}+1.72727u^{15}+\cdots-0.818182u+0.272727 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.727273u^{16}+1.81818u^{15}+\cdots+2.45455u+1.18182 \\ -1.18182u^{16}-1.45455u^{15}+\cdots-1.36364u-1.54545 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 1.09091u^{16}+1.72727u^{15}+\cdots-0.818182u+0.272727 \\ -2u^{16}-4u^{15}+\cdots-4u^2-1 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 1.09091u^{16}+1.72727u^{15}+\cdots-0.818182u+0.272727 \\ -2u^{16}-4u^{15}+\cdots-4u^2-1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes =unknown

(iv) Complex Volumes and Cusp Shapes

Solution to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.21767$ $a=\ \ 0.0772520$ $b=-0.290874$	2.45771	67.1063
$u=-0.684492-0.841900I$ $a=\ \ 0.651337-0.001592I$ $b=\ \ 0.173399+0.968072I$	$2.91021+2.64160I$	$11.92622-2.88965I$
$u=-0.684492+0.841900I$ $a=\ \ 0.651337+0.001592I$ $b=\ \ 0.173399-0.968072I$	$2.91021-2.64160I$	$11.92622+2.88965I$
$u=-0.631690-1.122784I$ $a=-0.594689-1.099291I$ $b=\ \ 1.079743+0.659465I$	$-1.01115+5.13361I$	$-3.97273-2.25660I$
$u=-0.631690+1.122784I$ $a=-0.594689+1.099291I$ $b=\ \ 1.079743-0.659465I$	$-1.01115-5.13361I$	$-3.97273+2.25660I$
$u=-0.420659-0.598526I$ $a=-0.01443+1.80727I$ $b=-1.28376-1.11047I$	$1.070289-0.654757I$	$6.91810+1.92183I$
$u=-0.420659+0.598526I$ $a=-0.01443-1.80727I$ $b=-1.28376+1.11047I$	$1.070289+0.654757I$	$6.91810-1.92183I$
$u=-0.122734-0.924960I$ $a=-0.237757-1.293924I$ $b=-0.94745+1.06891I$	$-6.20661+0.55436I$	$-3.35974-0.56714I$
$u=-0.122734+0.924960I$ $a=-0.237757+1.293924I$ $b=-0.94745-1.06891I$	$-6.20661-0.55436I$	$-3.35974+0.56714I$
$u=\ \ 0.250815-1.195168I$ $a=\ \ 0.207863+0.239392I$ $b=-0.687540+0.197410I$	$-4.48302+1.95126I$	$-1.08122-8.77138I$

Solution to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.250815 + 1.195168I$ $a = 0.207863 - 0.239392I$ $b = -0.687540 - 0.197410I$	$-4.48302 - 1.95126I$	$-1.08122 + 8.77138I$
$u = 0.524315 - 0.513369I$ $a = -0.945127 - 0.118464I$ $b = 0.069243 - 0.549737I$	$-1.62681 - 5.44009I$	$4.90727 + 6.73636I$
$u = 0.524315 + 0.513369I$ $a = -0.945127 + 0.118464I$ $b = 0.069243 + 0.549737I$	$-1.62681 + 5.44009I$	$4.90727 - 6.73636I$
$u = 0.587589 - 0.691285I$ $a = 1.63447 - 2.13794I$ $b = -2.18739 + 0.67108I$	$-1.19877 + 3.86614I$	$3.92641 - 4.92506I$
$u = 0.587589 + 0.691285I$ $a = 1.63447 + 2.13794I$ $b = -2.18739 - 0.67108I$	$-1.19877 - 3.86614I$	$3.92641 + 4.92506I$
$u = 0.605689 - 0.998898I$ $a = -1.24029 + 1.92169I$ $b = 2.42919 - 1.38122I$	$-2.19753 - 8.63849I$	$2.18255 + 9.85874I$
$u = 0.605689 + 0.998898I$ $a = -1.24029 - 1.92169I$ $b = 2.42919 + 1.38122I$	$-2.19753 + 8.63849I$	$2.18255 - 9.85874I$

II. $I_2^u = \langle u^{98} + 2u^{97} + \cdots + 37u + 13,\ 2.76 \times 10^{143}u^{97} + 5.18 \times 10^{143}u^{96} + \cdots + 1.58 \times 10^{143}b + 3.47 \times 10^{144},\ -1.74 \times 10^{144}u^{97} - 3.36 \times 10^{144}u^{96} + \cdots + 2.05 \times 10^{144}a - 3.10 \times 10^{145}\rangle$

(i) Arc colorings

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

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

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

$$a_3 = \begin{pmatrix} u^2+1 \\ u^4 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -u \\ u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.844486u^{97} + 1.63444u^{96} + \cdots + 51.5535u + 15.0954 \\ -1.74543u^{97} - 3.27541u^{96} + \cdots - 72.9236u - 21.9366 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 1.83144u^{97} + 2.38739u^{96} + \cdots + 57.3119u + 13.0035 \\ -2.73238u^{97} - 4.02837u^{96} + \cdots - 78.6820u - 19.8447 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0.593110u^{97} - 0.970360u^{96} + \cdots - 33.1898u - 23.8968 \\ 0.0424356u^{97} + 1.77360u^{96} + \cdots + 58.6166u + 30.1901 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.383642u^{97} + 1.94181u^{96} + \cdots + 35.2295u + 22.8024 \\ 0.188819u^{97} + 0.0400089u^{96} + \cdots + 11.9588u - 2.51780 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 2.09411u^{97} + 2.28943u^{96} + \cdots + 47.4536u + 8.51896 \\ -2.78005u^{97} - 3.46093u^{96} + \cdots - 69.8097u - 12.9213 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.650007u^{97} + 2.92291u^{96} + \cdots + 74.3636u + 31.4113 \\ -0.275137u^{97} - 2.06219u^{96} + \cdots - 57.6631u - 25.6799 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.650007u^{97} + 2.92291u^{96} + \cdots + 74.3636u + 31.4113 \\ -0.275137u^{97} - 2.06219u^{96} + \cdots - 57.6631u - 25.6799 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes =unknown

(iv) Complex Volumes and Cusp Shapes

Solution to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.25091$ $a=-0.159653$ $b=\ \ 0.179471$	2.39487	-61.0112
$u=-0.961805-0.599639I$ $a=\ \ 0.480652+0.568644I$ $b=-0.676467+0.134753I$	$3.94411+0.60196I$	$12.92182+2.39082I$
$u=-0.961805+0.599639I$ $a=\ \ 0.480652-0.568644I$ $b=-0.676467-0.134753I$	$3.94411-0.60196I$	$12.92182-2.39082I$
$u=-0.929871-0.556246I$ $a=-1.14571-0.85020I$ $b=\ \ 1.37727-0.56233I$	$-0.99305-12.05118I$	$4.83801+6.29505I$
$u=-0.929871+0.556246I$ $a=-1.14571+0.85020I$ $b=\ \ 1.37727+0.56233I$	$-0.99305+12.05118I$	$4.83801-6.29505I$
$u=-0.829244-0.372367I$ $a=\ \ 0.011838-0.448374I$ $b=\ \ 0.779159+0.308223I$	$1.68869+0.41507I$	$13.12229-5.00177I$
$u=-0.829244+0.372367I$ $a=\ \ 0.011838+0.448374I$ $b=\ \ 0.779159-0.308223I$	$1.68869-0.41507I$	$13.12229+5.00177I$
$u=-0.788593-0.839284I$ $a=-0.649952+0.823379I$ $b=\ \ 0.419338-0.783640I$	$-0.34003+2.94218I$	$9.89228-4.03522I$
$u=-0.788593+0.839284I$ $a=-0.649952-0.823379I$ $b=\ \ 0.419338+0.783640I$	$-0.34003-2.94218I$	$9.89228+4.03522I$
$u=-0.730610-1.090667I$ $a=-0.328707-1.012041I$ $b=\ \ 1.17323+0.97521I$	$2.40641+5.55593I$	$8.63750-5.65911I$

Solution to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.730610+1.090667I$ $a=-0.328707+1.012041I$ $b=\ \ 1.17323-0.97521I$	$2.40641-5.55593I$	$8.63750+5.65911I$
$u=-0.728651-0.628934I$ $a=\ \ 1.63381+1.24542I$ $b=-1.85026+0.50485I$	$-2.36351-2.54757I$	$0.84513+1.95989I$
$u=-0.728651+0.628934I$ $a=\ \ 1.63381-1.24542I$ $b=-1.85026-0.50485I$	$-2.36351+2.54757I$	$0.84513-1.95989I$
$u=-0.709754-1.109177I$ $a=\ \ 0.49182+1.77598I$ $b=-1.79882-1.66894I$	$-2.7010+18.0711I$	$2.79401-10.05178I$
$u=-0.709754+1.109177I$ $a=\ \ 0.49182-1.77598I$ $b=-1.79882+1.66894I$	$-2.7010-18.0711I$	$2.79401+10.05178I$
$u=-0.687518-1.182221I$ $a=\ \ 0.450826+0.933465I$ $b=-0.899326-0.591146I$	$-0.78309+5.33239I$	$16.3208-20.8208I$
$u=-0.687518+1.182221I$ $a=\ \ 0.450826-0.933465I$ $b=-0.899326+0.591146I$	$-0.78309-5.33239I$	$16.3208+20.8208I$
$u=-0.665170-1.011222I$ $a=-0.50351-2.28195I$ $b=\ \ 2.12098+2.00588I$	$-3.49613+7.89288I$	$-2.04563-7.04265I$
$u=-0.665170+1.011222I$ $a=-0.50351+2.28195I$ $b=\ \ 2.12098-2.00588I$	$-3.49613-7.89288I$	$-2.04563+7.04265I$
$u=-0.650522-0.909255I$ $a=\ \ 0.894442+0.757757I$ $b=-0.860839+0.293592I$	$1.10819+3.36665I$	$5.50981-4.68289I$

Solution to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.650522+0.909255I$ $a=\ \ 0.894442-0.757757I$ $b=-0.860839-0.293592I$	$1.10819-3.36665I$	$5.50981+4.68289I$
$u=-0.632212-0.756505I$ $a=\ \ 0.187157-0.923541I$ $b=\ \ 0.97732+1.10648I$	$1.56819+1.66106I$	$6.35561-1.21502I$
$u=-0.632212+0.756505I$ $a=\ \ 0.187157+0.923541I$ $b=\ \ 0.97732-1.10648I$	$1.56819-1.66106I$	$6.35561+1.21502I$
$u=-0.616891-0.784397I$ $a=\ \ 1.39805+2.19055I$ $b=-1.51270-0.89027I$	$-0.34672-2.97837I$	$8.08773+0.56455I$
$u=-0.616891+0.784397I$ $a=\ \ 1.39805-2.19055I$ $b=-1.51270+0.89027I$	$-0.34672+2.97837I$	$8.08773-0.56455I$
$u=-0.607517-0.904806I$ $a=-1.59059-1.15721I$ $b=\ \ 2.68026+0.89870I$	$-0.72330+7.80017I$	$6.55859-8.31963I$
$u=-0.607517+0.904806I$ $a=-1.59059+1.15721I$ $b=\ \ 2.68026-0.89870I$	$-0.72330-7.80017I$	$6.55859+8.31963I$
$u=-0.579700-0.891928I$ $a=-1.49591-1.28376I$ $b=\ \ 1.138518-0.427297I$	$1.77426+4.06198I$	$6.05468-5.99848I$
$u=-0.579700+0.891928I$ $a=-1.49591+1.28376I$ $b=\ \ 1.138518+0.427297I$	$1.77426-4.06198I$	$6.05468+5.99848I$
$u=-0.575791-0.810573I$ $a=-0.026662+1.048832I$ $b=-1.71074-1.19637I$	$2.03874+0.53848I$	$7.76074-1.78421I$

Solution to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.575791+0.810573I$ $a=-0.026662-1.048832I$ $b=-1.71074+1.19637I$	$2.03874-0.53848I$	$7.76074+1.78421I$
$u=-0.561025-0.178055I$ $a=\ \ 1.61447+1.21655I$ $b=-0.595991-0.476658I$	$-2.36220-3.74881I$	$2.92062+2.78211I$
$u=-0.561025+0.178055I$ $a=\ \ 1.61447-1.21655I$ $b=-0.595991+0.476658I$	$-2.36220+3.74881I$	$2.92062-2.78211I$
$u=-0.542877-1.044419I$ $a=-0.90706-1.69123I$ $b=\ \ 1.24620+1.77860I$	$-4.35388+7.97905I$	$-1.76961-8.09712I$
$u=-0.542877+1.044419I$ $a=-0.90706+1.69123I$ $b=\ \ 1.24620-1.77860I$	$-4.35388-7.97905I$	$-1.76961+8.09712I$
$u=-0.518432-1.055204I$ $a=\ \ 0.597607+1.227946I$ $b=-1.42740-0.66976I$	$-1.13902+3.74818I$	$-0.88574-3.05256I$
$u=-0.518432+1.055204I$ $a=\ \ 0.597607-1.227946I$ $b=-1.42740+0.66976I$	$-1.13902-3.74818I$	$-0.88574+3.05256I$
$u=-0.462129$ $a=\ \ 1.11606$ $b=\ \ 0.647283$	1.18814	6.83072
$u=-0.354450-0.773791I$ $a=-0.24689-2.26039I$ $b=\ \ 1.13030+0.94603I$	$0.304324-0.169063I$	$0.076630-1.093025I$
$u=-0.354450+0.773791I$ $a=-0.24689+2.26039I$ $b=\ \ 1.13030-0.94603I$	$0.304324+0.169063I$	$0.076630+1.093025I$

Solution to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.315902-0.719037I$ $a=\ \ 1.55398+0.85489I$ $b=-1.53544-1.47088I$	$-2.69442-4.06632I$	$-0.58437+4.03909I$
$u=-0.315902+0.719037I$ $a=\ \ 1.55398-0.85489I$ $b=-1.53544+1.47088I$	$-2.69442+4.06632I$	$-0.58437-4.03909I$
$u=-0.254437-1.134610I$ $a=\ \ 0.481731-0.843056I$ $b=-1.29217+0.72265I$	$-6.20840-0.89525I$	$-2.90137+3.60333I$
$u=-0.254437+1.134610I$ $a=\ \ 0.481731+0.843056I$ $b=-1.29217-0.72265I$	$-6.20840+0.89525I$	$-2.90137-3.60333I$
$u=-0.123571-1.259898I$ $a=\ \ 0.487894-0.104785I$ $b=\ \ 0.168226-0.012570I$	$-3.19553+4.35794I$	$-0.51339-9.19364I$
$u=-0.123571+1.259898I$ $a=\ \ 0.487894+0.104785I$ $b=\ \ 0.168226+0.012570I$	$-3.19553-4.35794I$	$-0.51339+9.19364I$
$u=-0.046008-0.429835I$ $a=\ \ 1.35260-0.89725I$ $b=-0.428851+1.119607I$	$0.60508+1.67951I$	$2.80427-5.83693I$
$u=-0.046008+0.429835I$ $a=\ \ 1.35260+0.89725I$ $b=-0.428851-1.119607I$	$0.60508-1.67951I$	$2.80427+5.83693I$
$u=\ \ 0.010475-1.028495I$ $a=-0.689241-0.128168I$ $b=-0.761681-0.425165I$	$-7.68730-2.02568I$	$-6.95698+3.50627I$
$u=\ \ 0.010475+1.028495I$ $a=-0.689241+0.128168I$ $b=-0.761681+0.425165I$	$-7.68730+2.02568I$	$-6.95698-3.50627I$

Solution to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.096931 - 1.252373I$ $a = 0.362653 + 0.173918I$ $b = 0.603612 + 0.166935I$	$-8.12216 - 10.14901I$	$-1.66247 + 7.33661I$
$u = 0.096931 + 1.252373I$ $a = 0.362653 - 0.173918I$ $b = 0.603612 - 0.166935I$	$-8.12216 + 10.14901I$	$-1.66247 - 7.33661I$
$u = 0.103181 - 1.061708I$ $a = -0.212743 + 0.523358I$ $b = -0.649185 - 0.115703I$	$-3.62579 + 0.91604I$	$-0.783114 - 0.171748I$
$u = 0.103181 + 1.061708I$ $a = -0.212743 - 0.523358I$ $b = -0.649185 + 0.115703I$	$-3.62579 - 0.91604I$	$-0.783114 + 0.171748I$
$u = 0.118535 - 1.224682I$ $a = 0.289155 + 0.166436I$ $b = -0.883751 + 0.193135I$	$-4.06422 + 1.56618I$	$9.03675 - 0.86700I$
$u = 0.118535 + 1.224682I$ $a = 0.289155 - 0.166436I$ $b = -0.883751 - 0.193135I$	$-4.06422 - 1.56618I$	$9.03675 + 0.86700I$
$u = 0.142699 - 0.640237I$ $a = -1.29003 + 2.28341I$ $b = 0.937392 - 0.020968I$	$-2.84596 + 4.76242I$	$-1.34751 - 4.70185I$
$u = 0.142699 + 0.640237I$ $a = -1.29003 - 2.28341I$ $b = 0.937392 + 0.020968I$	$-2.84596 - 4.76242I$	$-1.34751 + 4.70185I$
$u = 0.147876 - 1.137580I$ $a = 0.782997 + 0.413691I$ $b = 0.215153 - 0.886319I$	$-7.72343 + 2.40963I$	$-5.11752 - 3.36481I$
$u = 0.147876 + 1.137580I$ $a = 0.782997 - 0.413691I$ $b = 0.215153 + 0.886319I$	$-7.72343 - 2.40963I$	$-5.11752 + 3.36481I$

Solution to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.440846 - 0.934645I$ $a = 0.14504 + 1.83409I$ $b = 0.47845 - 1.88062I$	$-4.98729 - 2.56981I$	$-1.43233 + 4.05835I$
$u = 0.440846 + 0.934645I$ $a = 0.14504 - 1.83409I$ $b = 0.47845 + 1.88062I$	$-4.98729 + 2.56981I$	$-1.43233 - 4.05835I$
$u = 0.477393 - 0.343592I$ $a = 1.80625 + 0.28029I$ $b = -0.483672 - 0.757800I$	$-3.54087 - 1.01143I$	$2.17194 + 3.15617I$
$u = 0.477393 + 0.343592I$ $a = 1.80625 - 0.28029I$ $b = -0.483672 + 0.757800I$	$-3.54087 + 1.01143I$	$2.17194 - 3.15617I$
$u = 0.496333 - 0.874547I$ $a = -0.097959 + 0.933682I$ $b = -0.935292 - 0.189200I$	$-4.93867 - 2.00874I$	$-0.10872 + 3.50077I$
$u = 0.496333 + 0.874547I$ $a = -0.097959 - 0.933682I$ $b = -0.935292 + 0.189200I$	$-4.93867 + 2.00874I$	$-0.10872 - 3.50077I$
$u = 0.510606 - 1.212625I$ $a = 0.001390 - 0.647164I$ $b = -0.428031 + 0.843863I$	$-5.25124 + 1.21183I$	$-5.14330 - 1.42171I$
$u = 0.510606 + 1.212625I$ $a = 0.001390 + 0.647164I$ $b = -0.428031 - 0.843863I$	$-5.25124 - 1.21183I$	$-5.14330 + 1.42171I$
$u = 0.585650 - 1.051209I$ $a = 0.14286 - 1.70294I$ $b = -1.69948 + 1.49277I$	$-4.95576 - 9.43405I$	$-0.90521 + 8.66462I$
$u = 0.585650 + 1.051209I$ $a = 0.14286 + 1.70294I$ $b = -1.69948 - 1.49277I$	$-4.95576 + 9.43405I$	$-0.90521 - 8.66462I$

Solution to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.622357 - 1.013963I$ $a = -0.79949 + 1.82212I$ $b = 1.68961 - 1.41228I$	$-0.37194 - 7.12003I$	$4.89395 + 8.50508I$
$u = 0.622357 + 1.013963I$ $a = -0.79949 - 1.82212I$ $b = 1.68961 + 1.41228I$	$-0.37194 + 7.12003I$	$4.89395 - 8.50508I$
$u = 0.622970 - 0.375877I$ $a = -0.49898 + 1.33505I$ $b = 1.031680 + 0.650688I$	$-3.17837 + 4.67663I$	$1.92891 - 3.96631I$
$u = 0.622970 + 0.375877I$ $a = -0.49898 - 1.33505I$ $b = 1.031680 - 0.650688I$	$-3.17837 - 4.67663I$	$1.92891 + 3.96631I$
$u = 0.628456 - 0.577625I$ $a = 1.18808 - 1.13011I$ $b = -1.46485 + 0.28597I$	$0.88936 + 2.15076I$	$6.69810 - 4.18529I$
$u = 0.628456 + 0.577625I$ $a = 1.18808 + 1.13011I$ $b = -1.46485 - 0.28597I$	$0.88936 - 2.15076I$	$6.69810 + 4.18529I$
$u = 0.637437 - 0.925557I$ $a = -1.38846 + 1.94746I$ $b = 2.14750 - 0.30192I$	$0.02639 - 8.44572I$	$6.19802 + 9.75804I$
$u = 0.637437 + 0.925557I$ $a = -1.38846 - 1.94746I$ $b = 2.14750 + 0.30192I$	$0.02639 + 8.44572I$	$6.19802 - 9.75804I$
$u = 0.637715 - 0.885907I$ $a = -0.975640 + 0.500677I$ $b = 1.79463 - 0.38423I$	$3.50961 - 4.39996I$	$11.74030 + 7.30879I$
$u = 0.637715 + 0.885907I$ $a = -0.975640 - 0.500677I$ $b = 1.79463 + 0.38423I$	$3.50961 + 4.39996I$	$11.74030 - 7.30879I$

Solution to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.641246 - 0.799243I$ $a = 0.58030 - 1.69291I$ $b = -0.770848 + 0.712997I$	$3.77490 - 0.59504I$	$12.85791 + 0.05069I$
$u = 0.641246 + 0.799243I$ $a = 0.58030 + 1.69291I$ $b = -0.770848 - 0.712997I$	$3.77490 + 0.59504I$	$12.85791 - 0.05069I$
$u = 0.659764 - 0.754623I$ $a = 0.72520 - 1.62897I$ $b = -2.33785 + 0.71506I$	$0.55151 + 3.39643I$	$7.74626 - 3.07030I$
$u = 0.659764 + 0.754623I$ $a = 0.72520 + 1.62897I$ $b = -2.33785 - 0.71506I$	$0.55151 - 3.39643I$	$7.74626 + 3.07030I$
$u = 0.664305 - 1.117587I$ $a = -0.76551 + 1.21140I$ $b = 1.79088 - 1.12906I$	$-0.12881 - 9.67930I$	$5.65063 + 9.46862I$
$u = 0.664305 + 1.117587I$ $a = -0.76551 - 1.21140I$ $b = 1.79088 + 1.12906I$	$-0.12881 + 9.67930I$	$5.65063 - 9.46862I$
$u = 0.706931 - 1.111353I$ $a = 0.54056 - 1.52403I$ $b = -1.60257 + 1.23418I$	$2.29515 - 12.34638I$	$6.24090 + 9.37681I$
$u = 0.706931 + 1.111353I$ $a = 0.54056 + 1.52403I$ $b = -1.60257 - 1.23418I$	$2.29515 + 12.34638I$	$6.24090 - 9.37681I$
$u = 0.750313 - 0.925840I$ $a = 0.861077 + 1.073744I$ $b = -0.06612 - 1.60877I$	$-3.57391 - 2.88241I$	$-2.24149 + 2.98192I$
$u = 0.750313 + 0.925840I$ $a = 0.861077 - 1.073744I$ $b = -0.06612 + 1.60877I$	$-3.57391 + 2.88241I$	$-2.24149 - 2.98192I$

Solution to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.750684 - 0.850677I$ $a = 0.886197 + 0.243343I$ $b = 0.150893 - 1.374511I$	$1.41987 - 2.83130I$	$5.69068 + 3.14159I$
$u = 0.750684 + 0.850677I$ $a = 0.886197 - 0.243343I$ $b = 0.150893 + 1.374511I$	$1.41987 + 2.83130I$	$5.69068 - 3.14159I$
$u = 0.867975 - 0.478153I$ $a = 0.680851 - 1.157903I$ $b = -0.955352 - 0.017072I$	$1.79924 + 3.99333I$	$9.11427 - 4.32391I$
$u = 0.867975 + 0.478153I$ $a = 0.680851 + 1.157903I$ $b = -0.955352 + 0.017072I$	$1.79924 - 3.99333I$	$9.11427 + 4.32391I$
$u = 0.934536 - 0.546067I$ $a = -0.798887 + 0.732215I$ $b = 1.243566 + 0.300535I$	$4.03924 + 6.33189I$	$9.00445 - 5.90062I$
$u = 0.934536 + 0.546067I$ $a = -0.798887 - 0.732215I$ $b = 1.243566 - 0.300535I$	$4.03924 - 6.33189I$	$9.00445 + 5.90062I$
$u = 1.011859 - 0.341309I$ $a = -0.503429 - 0.184176I$ $b = -0.079861 + 0.635239I$	$-2.16870 - 6.86474I$	$2.01536 + 10.44308I$
$u = 1.011859 + 0.341309I$ $a = -0.503429 + 0.184176I$ $b = -0.079861 - 0.635239I$	$-2.16870 + 6.86474I$	$2.01536 - 10.44308I$

III. u-Polynomials

Crossings	u-Polynomials at each crossings
c_1	$(u^{17}+u^{16}+\cdots+3u^2+1)(u^{98}+2u^{97}+\cdots+37u+13)$
c_2	$(u^{17}+7u^{16}+\cdots-6u-1)(u^{98}+38u^{97}+\cdots+3909u+169)$
c_3	$(u^{17}+u^{16}+\cdots-2u^2-1)(u^{98}+8u^{97}+\cdots-2079u-121)$
c_4	$(u^{17}+u^{16}+\cdots+4u+1)(u^{98}+4u^{97}+\cdots+23u+1)$
c_5	$(u^{17}-u^{16}+\cdots-3u^2-1)(u^{98}+2u^{97}+\cdots+37u+13)$
c_6	$(u^{17}-2u^{16}+\cdots+6u+1)(u^{98}+u^{97}+\cdots-35u-1)$
c_7	$(u^2+1)(u^{17}-u^{16}+\cdots+4u-1)(u^{96}+4u^{95}+\cdots+23u+1)$
c_8	$(u^{17}+2u^{15}+\cdots-u-1)(u^{98}+u^{97}+\cdots-3372u+329)$
c_9	$(u^{17}-u^{15}+\cdots+2u-1)(u^{98}+u^{97}+\cdots-1099u+29)$
c_{10}	$(u^{17}-9u^{16}+\cdots+3u-1)(u^{98}+6u^{97}+\cdots+80u-3)$
c_{11}	$(u^{17}+8u^{16}+\cdots+4u+1)(u^{98}+7u^{97}+\cdots-291u+55)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossings
c_1, c_5	$(y^{17}+7y^{16}+\cdots-6y-1)(y^{98}+38y^{97}+\cdots+3909y+169)$
c_2	$(y^{17}+3y^{16}+\cdots-14y-1)(y^{98}+42y^{97}+\cdots-1253619y+28561)$
c_3	$(y^{17}+y^{16}+\cdots-4y-1)(y^{98}+20y^{97}+\cdots-1311277y+14641)$
c_4, c_7	$(y^{17}+11y^{16}+\cdots-22y-1)(y^{98}+70y^{97}+\cdots+101y+1)$
c_6	$(y^{17}+4y^{16}+\cdots+8y-1)(y^{98}+3y^{97}+\cdots-177y+1)$
c_8	$(y^{17}+4y^{16}+\cdots-y-1)(y^{98}+19y^{97}+\cdots+5038820y+108241)$
c_9	$(y^{17}-2y^{16}+\cdots+18y-1)(y^{98}+9y^{97}+\cdots-1350887y+841)$
c_{10}	$(y^{17}+7y^{16}+\cdots+5y-1)(y^{98}+10y^{97}+\cdots-178y+9)$
c_{11}	$(y^{17}+8y^{16}+\cdots+8y-1)(y^{98}+3y^{97}+\cdots-70161y+3025)$