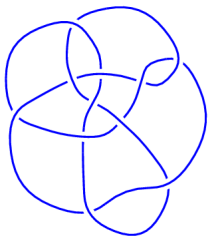
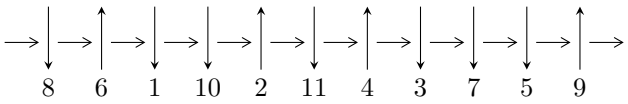
$11a_{284}$ $(K11a_{284})$



1

Arc Sequences



Solving Sequence

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

Representation Ideals

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

$I_1^u = \langle 4u^{26} + 5u^{25} + \cdots - 1415u - 341,$
$3.58596 \times 10^{75}u^{25} + 5.19432 \times 10^{75}u^{24} + \cdots + 3.47453 \times 10^{77}b - 1.20299 \times 10^{78},$
$- 3.81991 \times 10^{76}u^{25} - 5.03538 \times 10^{76}u^{24} + \cdots + 2.36963 \times 10^{79}a + 7.68072 \times 10^{78}\rangle$

$I_2^u = \langle 4u^{115} + 81u^{114} + \cdots - 110808u - 1701,$
$1.08587 \times 10^{1248}u^{114} + 2.18563 \times 10^{1249}u^{113} + \cdots + 1.39651 \times 10^{1248}b - 3.97881 \times 10^{1251},$
$- 1.85880 \times 10^{1249}u^{114} - 3.73499 \times 10^{1250}u^{113} + \cdots + 9.77554 \times 10^{1248}a + 4.90772 \times 10^{1252}\rangle$

There are 2 irreducible components with 141 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. $I_1^u = \langle 4u^{26} + 5u^{25} + \cdots - 1415u - 341,\ 3.59 \times 10^{75}u^{25} + 5.19 \times 10^{75}u^{24} + \cdots + 3.47 \times 10^{77}b - 1.20 \times 10^{78},\ -3.82 \times 10^{76}u^{25} - 5.04 \times 10^{76}u^{24} + \cdots + 2.37 \times 10^{79}a + 7.68 \times 10^{78} \rangle$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.00161203u^{25} + 0.00212496u^{24} + \cdots + 0.540474u - 0.324131 \\ -0.0103207u^{25} - 0.0149497u^{24} + \cdots + 11.9514u + 3.46231 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.0119327u^{25} + 0.0170746u^{24} + \cdots - 11.4109u - 3.78644 \\ -0.0103207u^{25} - 0.0149497u^{24} + \cdots + 11.9514u + 3.46231 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.0162273u^{25} + 0.0156143u^{24} + \cdots - 12.4362u - 0.296971 \\ 0.00563449u^{25} + 0.00218548u^{24} + \cdots - 1.76458u + 2.84202 \end{pmatrix}$$

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

$$a_8 = \begin{pmatrix} -0.00582062u^{25} - 0.00872647u^{24} + \cdots + 7.77443u + 2.24943 \\ -0.0128004u^{25} - 0.0161324u^{24} + \cdots + 14.8585u + 2.99176 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.00925305u^{25} - 0.0115922u^{24} + \cdots + 7.25279u + 3.31087 \\ -0.000187764u^{25} + 0.000559625u^{24} + \cdots + 1.39179u - 0.903037 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.00161203u^{25} + 0.00212496u^{24} + \cdots + 0.540474u - 0.324131 \\ -0.00903229u^{25} - 0.0139405u^{24} + \cdots + 11.7751u + 3.45294 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.0225122u^{25} + 0.0291309u^{24} + \cdots - 24.4289u - 7.06994 \\ 0.0133518u^{25} + 0.0174563u^{24} + \cdots - 17.9127u - 3.28786 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.00722466u^{25} + 0.00938059u^{24} + \cdots - 7.19894u - 2.86552 \\ -0.0121037u^{25} - 0.0117444u^{24} + \cdots + 8.42449u + 0.919092 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -0.00395233u^{25} - 0.00653935u^{24} + \cdots + 2.08201u + 0.964542 \\ -0.00179808u^{25} + 0.00232497u^{24} + \cdots - 1.51801u - 1.96636 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -0.00395233u^{25} - 0.00653935u^{24} + \cdots + 2.08201u + 0.964542 \\ -0.00179808u^{25} + 0.00232497u^{24} + \cdots - 1.51801u - 1.96636 \end{pmatrix}$$

(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
$u=-5.35208$ $a=\ \ 0.991864$ $b=\ \ 1.04378$	-3.13685	-80.2547
$u=-2.19762-0.93242I$ $a=-0.357553-0.084527I$ $b=-0.816237+0.239357I$	$-0.28328+8.29218I$	$-6.85575-7.14384I$
$u=-2.19762+0.93242I$ $a=-0.357553+0.084527I$ $b=-0.816237-0.239357I$	$-0.28328-8.29218I$	$-6.85575+7.14384I$
$u=-1.93482-0.62638I$ $a=\ \ 0.677749+0.224753I$ $b=\ \ 1.35649+0.51125I$	$-3.19455-8.83044I$	$-3.92140+6.56535I$
$u=-1.93482+0.62638I$ $a=\ \ 0.677749-0.224753I$ $b=\ \ 1.35649-0.51125I$	$-3.19455+8.83044I$	$-3.92140-6.56535I$
$u=-0.962455-1.024584I$ $a=\ \ 0.526857+0.137069I$ $b=-0.206182-0.192031I$	$2.42427-0.67930I$	$4.38910+2.66937I$
$u=-0.962455+1.024584I$ $a=\ \ 0.526857-0.137069I$ $b=-0.206182+0.192031I$	$2.42427+0.67930I$	$4.38910-2.66937I$
$u=-0.690396-0.190219I$ $a=\ \ 1.02958-1.16070I$ $b=\ \ 0.227577-0.672977I$	$-0.421435+1.186281I$	$-4.72479-2.80501I$
$u=-0.690396+0.190219I$ $a=\ \ 1.02958+1.16070I$ $b=\ \ 0.227577+0.672977I$	$-0.421435-1.186281I$	$-4.72479+2.80501I$
$u=-0.253458-0.308127I$ $a=-0.01891-1.86651I$ $b=-0.087210+0.961580I$	$1.16980+3.77509I$	$-2.33539-3.30863I$

Solution to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.253458+0.308127I$ $a=-0.01891+1.86651I$ $b=-0.087210-0.961580I$	$1.16980-3.77509I$	$-2.33539+3.30863I$
$u=-0.146652-0.299251I$ $a=\ \ 0.448440-0.613353I$ $b=-0.11363-1.63639I$	$3.68864+1.45554I$	$15.4501+9.8201I$
$u=-0.146652+0.299251I$ $a=\ \ 0.448440+0.613353I$ $b=-0.11363+1.63639I$	$3.68864-1.45554I$	$15.4501-9.8201I$
$u=\ \ 0.087014-0.495453I$ $a=-2.00772-0.68452I$ $b=\ \ 0.144725+0.492800I$	$1.07549+4.08283I$	$0.16567-2.93988I$
$u=\ \ 0.087014+0.495453I$ $a=-2.00772+0.68452I$ $b=\ \ 0.144725-0.492800I$	$1.07549-4.08283I$	$0.16567+2.93988I$
$u=\ \ 0.806746-0.268347I$ $a=\ \ 0.161169-0.880882I$ $b=-1.356158-0.095896I$	$-3.05153-7.14647I$	$-5.02875+6.53250I$
$u=\ \ 0.806746+0.268347I$ $a=\ \ 0.161169+0.880882I$ $b=-1.356158+0.095896I$	$-3.05153+7.14647I$	$-5.02875-6.53250I$
$u=\ \ 1.044925-0.844418I$ $a=\ \ 0.322556+0.436209I$ $b=\ \ 1.254264+0.252501I$	$-5.43384+2.60736I$	$-6.61005-1.10855I$
$u=\ \ 1.044925+0.844418I$ $a=\ \ 0.322556-0.436209I$ $b=\ \ 1.254264-0.252501I$	$-5.43384-2.60736I$	$-6.61005+1.10855I$
$u=\ \ 1.15965-1.18566I$ $a=\ \ 0.063132+0.469152I$ $b=\ \ 1.070485+0.296067I$	$-4.79002-5.38029I$	$-5.23955+8.87254I$

Solution to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.15965 + 1.18566I$ $a = 0.063132 - 0.469152I$ $b = 1.070485 - 0.296067I$	$-4.79002 + 5.38029I$	$-5.23955 - 8.87254I$
$u = 2.01532 - 0.34937I$ $a = -0.671037 + 0.042467I$ $b = -1.281619 + 0.541938I$	$-5.29738 + 2.79205I$	$3.89539 + 9.28399I$
$u = 2.01532 + 0.34937I$ $a = -0.671037 - 0.042467I$ $b = -1.281619 - 0.541938I$	$-5.29738 - 2.79205I$	$3.89539 - 9.28399I$
$u = 2.04506 - 0.65132I$ $a = -0.741852 + 0.321555I$ $b = -1.47927 + 0.22060I$	$-6.54530 + 4.65043I$	$9.47001 + 3.40221I$
$u = 2.04506 + 0.65132I$ $a = -0.741852 - 0.321555I$ $b = -1.47927 - 0.22060I$	$-6.54530 - 4.65043I$	$9.47001 - 3.40221I$
$u = 2.15545$ $a = -0.425611$ $b = -1.47023$	-4.89292	-14.4608

II. $\boldsymbol{I_2^u = \langle 4u^{115} + 81u^{114} + \cdots - 110808u - 1701,\ 1.09 \times 10^{1248}u^{114} + 2.19 \times 10^{1249}u^{113} + \cdots + 1.40 \times 10^{1248}b - 3.98 \times 10^{1251},\ -1.86 \times 10^{1249}u^{114} - 3.73 \times 10^{1250}u^{113} + \cdots + 9.78 \times 10^{1248}a + 4.91 \times 10^{1252} \rangle}$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 1.90148u^{114} + 38.2075u^{113} + \cdots - 296642.u - 5020.41 \\ -0.777562u^{114} - 15.6507u^{113} + \cdots + 160033.u + 2849.12 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 2.67904u^{114} + 53.8582u^{113} + \cdots - 456675.u - 7869.53 \\ -0.777562u^{114} - 15.6507u^{113} + \cdots + 160033.u + 2849.12 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 3.44826u^{114} + 69.4415u^{113} + \cdots - 736137.u - 13101.5 \\ 0.303018u^{114} + 6.11166u^{113} + \cdots - 73411.2u - 1311.77 \end{pmatrix}$$

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

$$a_8 = \begin{pmatrix} 1.80468u^{114} + 36.3125u^{113} + \cdots - 341750.u - 5939.78 \\ -0.955604u^{114} - 19.2404u^{113} + \cdots + 204055.u + 3647.61 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.935918u^{114} - 18.8939u^{113} + \cdots + 240162.u + 4313.93 \\ 0.361192u^{114} + 7.27284u^{113} + \cdots - 75337.7u - 1337.51 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1.90148u^{114} + 38.2075u^{113} + \cdots - 296642.u - 5020.41 \\ -0.822412u^{114} - 16.5526u^{113} + \cdots + 167465.u + 2975.63 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -1.44471u^{114} - 29.0824u^{113} + \cdots + 283974.u + 4930.38 \\ 1.14514u^{114} + 23.0696u^{113} + \cdots - 259771.u - 4675.55 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 1.04325u^{114} + 21.0543u^{113} + \cdots - 267092.u - 4813.54 \\ -0.188146u^{114} - 3.78865u^{113} + \cdots + 39707.6u + 706.946 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -0.154167u^{114} - 3.10419u^{113} + \cdots + 43209.4u + 808.579 \\ -0.311992u^{114} - 6.28097u^{113} + \cdots + 62842.4u + 1108.34 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -0.154167u^{114} - 3.10419u^{113} + \cdots + 43209.4u + 808.579 \\ -0.311992u^{114} - 6.28097u^{113} + \cdots + 62842.4u + 1108.34 \end{pmatrix}$$

(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
$u=-2.65694-0.59509I$ $a=\ \ 0.220787+0.176788I$ $b=\ \ 1.010130+0.380651I$	$0.30874-9.37379I$	$-1.28089+12.81196I$
$u=-2.65694+0.59509I$ $a=\ \ 0.220787-0.176788I$ $b=\ \ 1.010130-0.380651I$	$0.30874+9.37379I$	$-1.28089-12.81196I$
$u=-2.21887-0.65859I$ $a=-0.687143-0.252028I$ $b=-1.40743-0.58100I$	$-4.4085-19.2643I$	$-5.06792+10.08172I$
$u=-2.21887+0.65859I$ $a=-0.687143+0.252028I$ $b=-1.40743+0.58100I$	$-4.4085+19.2643I$	$-5.06792-10.08172I$
$u=-2.18850-2.29645I$ $a=\ \ 1.041791+0.014840I$ $b=\ \ 1.059197-0.052066I$	$-3.06735-0.13431I$	$-20.9462+10.0697I$
$u=-2.18850+2.29645I$ $a=\ \ 1.041791-0.014840I$ $b=\ \ 1.059197+0.052066I$	$-3.06735+0.13431I$	$-20.9462-10.0697I$
$u=-2.13022-0.41998I$ $a=\ \ 0.694251+0.382916I$ $b=\ \ 1.30808+0.59816I$	$-4.13667-9.74502I$	$-9.7338+11.2797I$
$u=-2.13022+0.41998I$ $a=\ \ 0.694251-0.382916I$ $b=\ \ 1.30808-0.59816I$	$-4.13667+9.74502I$	$-9.7338-11.2797I$
$u=-2.12165-0.40200I$ $a=-0.754619-0.090717I$ $b=-0.973927-0.511293I$	$1.97163-8.25765I$	$-0.61706+8.92695I$
$u=-2.12165+0.40200I$ $a=-0.754619+0.090717I$ $b=-0.973927+0.511293I$	$1.97163+8.25765I$	$-0.61706-8.92695I$

Solution to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-2.11983-1.23253I$ $a=\ 0.914658+0.318873I$ $b=\ 1.035289+0.037346I$	$-2.68146-0.59329I$	$-7.46676-2.53430I$
$u=-2.11983+1.23253I$ $a=\ 0.914658-0.318873I$ $b=\ 1.035289-0.037346I$	$-2.68146+0.59329I$	$-7.46676+2.53430I$
$u=-2.08683-0.49064I$ $a=-0.622819-0.148989I$ $b=-1.39446-0.56738I$	$-3.46118-10.66995I$	$-6.80898+11.15712I$
$u=-2.08683+0.49064I$ $a=-0.622819+0.148989I$ $b=-1.39446+0.56738I$	$-3.46118+10.66995I$	$-6.80898-11.15712I$
$u=-2.07484-0.99188I$ $a=\ 0.710196+0.130334I$ $b=\ 1.38682+0.39595I$	$-4.21702-8.99203I$	$-12.6798+9.4717I$
$u=-2.07484+0.99188I$ $a=\ 0.710196-0.130334I$ $b=\ 1.38682-0.39595I$	$-4.21702+8.99203I$	$-12.6798-9.4717I$
$u=-2.03921-0.92776I$ $a=\ 0.364379-0.335432I$ $b=\ 1.146104+0.150850I$	$-3.21433-4.24659I$	$-10.12535+2.58383I$
$u=-2.03921+0.92776I$ $a=\ 0.364379+0.335432I$ $b=\ 1.146104-0.150850I$	$-3.21433+4.24659I$	$-10.12535-2.58383I$
$u=-1.85075-1.47814I$ $a=\ 0.344486-0.063181I$ $b=\ 0.780035+0.054648I$	$1.53749-0.92367I$	$-5.04340+3.98601I$
$u=-1.85075+1.47814I$ $a=\ 0.344486+0.063181I$ $b=\ 0.780035-0.054648I$	$1.53749+0.92367I$	$-5.04340-3.98601I$

Solution to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.65654-0.77193I$ $a=-0.537665-0.158098I$ $b=-0.982358-0.491043I$	$4.07307-1.94826I$	$1.83333+2.74729I$
$u=-1.65654+0.77193I$ $a=-0.537665+0.158098I$ $b=-0.982358+0.491043I$	$4.07307+1.94826I$	$1.83333-2.74729I$
$u=-1.40358-0.23697I$ $a=\ \ 0.903877-0.242663I$ $b=\ \ 1.32127-0.65726I$	$-4.19786+5.91313I$	$-9.94340-4.15613I$
$u=-1.40358+0.23697I$ $a=\ \ 0.903877+0.242663I$ $b=\ \ 1.32127+0.65726I$	$-4.19786-5.91313I$	$-9.94340+4.15613I$
$u=-1.28674-1.28880I$ $a=-0.221742+0.341912I$ $b=-1.122023+0.035704I$	$-5.49191-3.64527I$	$-9.06683+6.94235I$
$u=-1.28674+1.28880I$ $a=-0.221742-0.341912I$ $b=-1.122023-0.035704I$	$-5.49191+3.64527I$	$-9.06683-6.94235I$
$u=-1.260579-0.437210I$ $a=-0.494800+0.520798I$ $b=-1.172711+0.567648I$	$-5.80540+6.12206I$	$-10.35178-8.89051I$
$u=-1.260579+0.437210I$ $a=-0.494800-0.520798I$ $b=-1.172711-0.567648I$	$-5.80540-6.12206I$	$-10.35178+8.89051I$
$u=-1.25155-1.45628I$ $a=-0.026520+0.438876I$ $b=-1.034361+0.088071I$	$-5.06782+4.62329I$	$-8.69727-1.12985I$
$u=-1.25155+1.45628I$ $a=-0.026520-0.438876I$ $b=-1.034361-0.088071I$	$-5.06782-4.62329I$	$-8.69727+1.12985I$

Solution to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.209772-0.673691I$ $a=\ 0.811757+0.233000I$ $b=\ 1.53256+0.61309I$	$-1.61279-9.53611I$	$-0.65267+12.76163I$
$u=-1.209772+0.673691I$ $a=\ 0.811757-0.233000I$ $b=\ 1.53256-0.61309I$	$-1.61279+9.53611I$	$-0.65267-12.76163I$
$u=-1.14409-1.27338I$ $a=-1.264046-0.321879I$ $b=-1.163111+0.215218I$	$-2.40903+9.64189I$	$-7.25494-10.55727I$
$u=-1.14409+1.27338I$ $a=-1.264046+0.321879I$ $b=-1.163111-0.215218I$	$-2.40903-9.64189I$	$-7.25494+10.55727I$
$u=-1.10610-1.22650I$ $a=-0.611487+0.141027I$ $b=-0.133252-0.192188I$	$0.60271+7.63366I$	$-1.06736-3.34725I$
$u=-1.10610+1.22650I$ $a=-0.611487-0.141027I$ $b=-0.133252+0.192188I$	$0.60271-7.63366I$	$-1.06736+3.34725I$
$u=-1.007662-0.304689I$ $a=-0.043213+0.382930I$ $b=-1.024402-0.478941I$	$0.12708-5.59619I$	$-1.11710+5.95871I$
$u=-1.007662+0.304689I$ $a=-0.043213-0.382930I$ $b=-1.024402+0.478941I$	$0.12708+5.59619I$	$-1.11710-5.95871I$
$u=-0.971709-0.362614I$ $a=-0.777808+0.463035I$ $b=-1.31460+0.61425I$	$-6.27820-1.86688I$	$-10.45813-2.79746I$
$u=-0.971709+0.362614I$ $a=-0.777808-0.463035I$ $b=-1.31460-0.61425I$	$-6.27820+1.86688I$	$-10.45813+2.79746I$

Solution to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.793821-0.310188I$ $a=\ \ 1.286280+0.560939I$ $b=\ \ 0.954355+0.617889I$	$0.06859-2.68945I$	$-0.59796+6.63077I$
$u=-0.793821+0.310188I$ $a=\ \ 1.286280-0.560939I$ $b=\ \ 0.954355-0.617889I$	$0.06859+2.68945I$	$-0.59796-6.63077I$
$u=-0.702028-0.103139I$ $a=\ \ 0.825340+1.146117I$ $b=-0.134878+0.614359I$	$0.63327-1.84453I$	$0.14495+4.92506I$
$u=-0.702028+0.103139I$ $a=\ \ 0.825340-1.146117I$ $b=-0.134878-0.614359I$	$0.63327+1.84453I$	$0.14495-4.92506I$
$u=-0.681900-0.060345I$ $a=-1.47975-0.80880I$ $b=-0.510605+0.872391I$	$3.47321-3.16840I$	$2.22918+5.47455I$
$u=-0.681900+0.060345I$ $a=-1.47975+0.80880I$ $b=-0.510605-0.872391I$	$3.47321+3.16840I$	$2.22918-5.47455I$
$u=-0.510061-0.755807I$ $a=-0.532620+0.054980I$ $b=-0.319706-0.582678I$	$1.61019+1.66229I$	$0.046508-0.698637I$
$u=-0.510061+0.755807I$ $a=-0.532620-0.054980I$ $b=-0.319706+0.582678I$	$1.61019-1.66229I$	$0.046508+0.698637I$
$u=-0.478990-0.845201I$ $a=-0.043411-1.104521I$ $b=\ \ 0.367774+0.043771I$	$-0.79505+2.96219I$	$-9.07486-5.68579I$
$u=-0.478990+0.845201I$ $a=-0.043411+1.104521I$ $b=\ \ 0.367774-0.043771I$	$-0.79505-2.96219I$	$-9.07486+5.68579I$

Solution to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.453378-0.206050I$ $a=\ \ 1.52496-1.79039I$ $b=\ \ 0.286543-1.076000I$	$-1.021757+0.432243I$	$-10.98843+1.94424I$
$u=-0.453378+0.206050I$ $a=\ \ 1.52496+1.79039I$ $b=\ \ 0.286543+1.076000I$	$-1.021757-0.432243I$	$-10.98843-1.94424I$
$u=-0.396156-0.070745I$ $a=-0.48164-2.87150I$ $b=-0.959244+0.232094I$	$0.02959+5.02048I$	$-3.58673-6.46546I$
$u=-0.396156+0.070745I$ $a=-0.48164+2.87150I$ $b=-0.959244-0.232094I$	$0.02959-5.02048I$	$-3.58673+6.46546I$
$u=-0.312107-0.361125I$ $a=-0.678069-1.030679I$ $b=-0.011643-0.668932I$	$1.05915+1.57001I$	$1.42915-4.50979I$
$u=-0.312107+0.361125I$ $a=-0.678069+1.030679I$ $b=-0.011643+0.668932I$	$1.05915-1.57001I$	$1.42915+4.50979I$
$u=-0.264920-0.559813I$ $a=\ \ 0.916806+0.031721I$ $b=\ \ 0.530189-0.955205I$	$1.66491+3.01542I$	$0.38268+2.14618I$
$u=-0.264920+0.559813I$ $a=\ \ 0.916806-0.031721I$ $b=\ \ 0.530189+0.955205I$	$1.66491-3.01542I$	$0.38268-2.14618I$
$u=-0.251656-0.079464I$ $a=\ \ 1.13844-4.01446I$ $b=-0.225514+0.606525I$	$0.84959+4.92469I$	$-2.11027-13.45244I$
$u=-0.251656+0.079464I$ $a=\ \ 1.13844+4.01446I$ $b=-0.225514-0.606525I$	$0.84959-4.92469I$	$-2.11027+13.45244I$

Solution to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.205233-0.326762I$ $a=-0.39801+2.18644I$ $b=-0.062709-1.257769I$	$0.87832+4.34613I$	$-9.6939-14.1674I$
$u=-0.205233+0.326762I$ $a=-0.39801-2.18644I$ $b=-0.062709+1.257769I$	$0.87832-4.34613I$	$-9.6939+14.1674I$
$u=-0.193910-0.866755I$ $a=\ \ 0.392212-0.346060I$ $b=-0.443788-0.795349I$	$1.83286+0.68624I$	$0.69950-1.32140I$
$u=-0.193910+0.866755I$ $a=\ \ 0.392212+0.346060I$ $b=-0.443788+0.795349I$	$1.83286-0.68624I$	$0.69950+1.32140I$
$u=-0.173813-0.030348I$ $a=-1.16377+5.48820I$ $b=-0.519165-0.876104I$	$5.59609-3.00304I$	$4.41820+3.71334I$
$u=-0.173813+0.030348I$ $a=-1.16377-5.48820I$ $b=-0.519165+0.876104I$	$5.59609+3.00304I$	$4.41820-3.71334I$
$u=-0.132064-0.415236I$ $a=-0.75535-1.84240I$ $b=\ \ 0.411316-0.582022I$	$-0.82600+1.86825I$	$-3.74526-4.03129I$
$u=-0.132064+0.415236I$ $a=-0.75535+1.84240I$ $b=\ \ 0.411316+0.582022I$	$-0.82600-1.86825I$	$-3.74526+4.03129I$
$u=-0.1063550-0.0066212I$ $a=\ \ 4.23374+0.50497I$ $b=\ \ 0.18102-1.75461I$	$3.53196-1.57888I$	$-16.7748+14.5726I$
$u=-0.1063550+0.0066212I$ $a=\ \ 4.23374-0.50497I$ $b=\ \ 0.18102+1.75461I$	$3.53196+1.57888I$	$-16.7748-14.5726I$

Solution to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.073755-0.317572I$ $a=\ \ 1.32227-1.93052I$ $b=\ \ 0.345587-0.027787I$	$-1.369570-0.113618I$	$-10.02289-1.25200I$
$u=-0.073755+0.317572I$ $a=\ \ 1.32227+1.93052I$ $b=\ \ 0.345587+0.027787I$	$-1.369570+0.113618I$	$-10.02289+1.25200I$
$u=-0.0661340-0.0842306I$ $a=-0.67585+11.18295I$ $b=-0.004590-1.259353I$	$0.03533+12.87641I$	$-2.94281-9.13821I$
$u=-0.0661340+0.0842306I$ $a=-0.67585-11.18295I$ $b=-0.004590+1.259353I$	$0.03533-12.87641I$	$-2.94281+9.13821I$
$u=-0.000296-0.320036I$ $a=-3.75625-1.14675I$ $b=\ \ 1.026093+0.139218I$	$0.539034-0.195029I$	$-1.72931-0.97162I$
$u=-0.000296+0.320036I$ $a=-3.75625+1.14675I$ $b=\ \ 1.026093-0.139218I$	$0.539034+0.195029I$	$-1.72931+0.97162I$
$u=\ \ 0.106854-0.205249I$ $a=\ \ 4.54785+2.30411I$ $b=-0.012508+0.954942I$	$-2.71019+7.23222I$	$-5.48048-6.27911I$
$u=\ \ 0.106854+0.205249I$ $a=\ \ 4.54785-2.30411I$ $b=-0.012508-0.954942I$	$-2.71019-7.23222I$	$-5.48048+6.27911I$
$u=\ \ 0.130940-0.143133I$ $a=-0.92299-6.39383I$ $b=\ \ 0.234098-1.101474I$	$-0.68914-3.66478I$	$-9.85598+6.79125I$
$u=\ \ 0.130940+0.143133I$ $a=-0.92299+6.39383I$ $b=\ \ 0.234098+1.101474I$	$-0.68914+3.66478I$	$-9.85598-6.79125I$

Solution to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.607237 - 0.519171I$ $a = -1.34755 + 0.61830I$ $b = 0.582607 + 0.698925I$	$1.62964 + 5.18438I$	$1.04465 - 9.63731I$
$u = 0.607237 + 0.519171I$ $a = -1.34755 - 0.61830I$ $b = 0.582607 - 0.698925I$	$1.62964 - 5.18438I$	$1.04465 + 9.63731I$
$u = 0.640894 - 0.375730I$ $a = 1.324477 + 0.230132I$ $b = 0.078049 + 0.552303I$	$-2.97182 - 2.03893I$	$-6.42535 + 4.02525I$
$u = 0.640894 + 0.375730I$ $a = 1.324477 - 0.230132I$ $b = 0.078049 - 0.552303I$	$-2.97182 + 2.03893I$	$-6.42535 - 4.02525I$
$u = 1.082280 - 0.128292I$ $a = 0.315897 - 0.353733I$ $b = 0.985307 + 0.117780I$	$-1.77940 - 0.62020I$	$-4.19144 + 0.32596I$
$u = 1.082280 + 0.128292I$ $a = 0.315897 + 0.353733I$ $b = 0.985307 - 0.117780I$	$-1.77940 + 0.62020I$	$-4.19144 - 0.32596I$
$u = 1.249113 - 0.259794I$ $a = 0.721018 + 0.215438I$ $b = 1.63914 + 0.48297I$	$-5.24071 + 6.02921I$	$-8.25746 - 5.43708I$
$u = 1.249113 + 0.259794I$ $a = 0.721018 - 0.215438I$ $b = 1.63914 - 0.48297I$	$-5.24071 - 6.02921I$	$-8.25746 + 5.43708I$
$u = 1.33799 - 0.54309I$ $a = -0.715577 + 0.326248I$ $b = -1.44936 + 0.36569I$	$-3.47686 + 5.05598I$	$-4.55066 - 7.76927I$
$u = 1.33799 + 0.54309I$ $a = -0.715577 - 0.326248I$ $b = -1.44936 - 0.36569I$	$-3.47686 - 5.05598I$	$-4.55066 + 7.76927I$

Solution to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.53656 - 0.19860I$ $a = -0.488935 + 0.512306I$ $b = -1.273063 + 0.287079I$	$-2.97685 + 5.07858I$	$-2.94848 - 5.55455I$
$u = 1.53656 + 0.19860I$ $a = -0.488935 - 0.512306I$ $b = -1.273063 - 0.287079I$	$-2.97685 - 5.07858I$	$-2.94848 + 5.55455I$
$u = 1.73290 - 0.39402I$ $a = -0.743083 - 0.209249I$ $b = -1.232710 - 0.278290I$	$-6.29691 - 0.61776I$	$-12.21282 - 0.03848I$
$u = 1.73290 + 0.39402I$ $a = -0.743083 + 0.209249I$ $b = -1.232710 + 0.278290I$	$-6.29691 + 0.61776I$	$-12.21282 + 0.03848I$
$u = 1.73460 - 0.11633I$ $a = 0.474195 + 0.205606I$ $b = 1.45521 + 0.41254I$	$-4.55954 - 1.63755I$	$-10.44330 - 1.59802I$
$u = 1.73460 + 0.11633I$ $a = 0.474195 - 0.205606I$ $b = 1.45521 - 0.41254I$	$-4.55954 + 1.63755I$	$-10.44330 + 1.59802I$
$u = 1.89305 - 0.56364I$ $a = 0.365708 + 0.106510I$ $b = 1.43105 - 0.02510I$	$-4.35240 + 0.58562I$	$-7.19541 - 3.39197I$
$u = 1.89305 + 0.56364I$ $a = 0.365708 - 0.106510I$ $b = 1.43105 + 0.02510I$	$-4.35240 - 0.58562I$	$-7.19541 + 3.39197I$
$u = 1.91796 - 0.41300I$ $a = -0.688419 - 0.320430I$ $b = -1.106935 - 0.106044I$	$-6.14019 - 0.62684I$	$-12.34553 + 0.36710I$
$u = 1.91796 + 0.41300I$ $a = -0.688419 + 0.320430I$ $b = -1.106935 + 0.106044I$	$-6.14019 + 0.62684I$	$-12.34553 - 0.36710I$

Solution to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.97396 - 0.68748I$ $a = -0.395610 + 0.203590I$ $b = -1.111113 + 0.194979I$	$-2.52539 + 4.84612I$	$-5.51959 - 6.84426I$
$u = 1.97396 + 0.68748I$ $a = -0.395610 - 0.203590I$ $b = -1.111113 - 0.194979I$	$-2.52539 - 4.84612I$	$-5.51959 + 6.84426I$
$u = 1.99168 - 0.76527I$ $a = -0.798973 + 0.262908I$ $b = -1.42361 + 0.20245I$	$-6.76597 + 4.72878I$	$-14.6888 - 8.1121I$
$u = 1.99168 + 0.76527I$ $a = -0.798973 - 0.262908I$ $b = -1.42361 - 0.20245I$	$-6.76597 - 4.72878I$	$-14.6888 + 8.1121I$
$u = 2.00021 - 0.37754I$ $a = 0.650607 - 0.000259I$ $b = 1.30419 - 0.62684I$	$-5.39735 + 2.89988I$	$-34.2168 - 31.1324I$
$u = 2.00021 + 0.37754I$ $a = 0.650607 + 0.000259I$ $b = 1.30419 + 0.62684I$	$-5.39735 - 2.89988I$	$-34.2168 + 31.1324I$
$u = 2.00455 - 1.44037I$ $a = 0.110241 + 0.283406I$ $b = 1.273154 + 0.109754I$	$-3.69644 - 8.07570I$	$-9.7356 + 11.4954I$
$u = 2.00455 + 1.44037I$ $a = 0.110241 - 0.283406I$ $b = 1.273154 - 0.109754I$	$-3.69644 + 8.07570I$	$-9.7356 - 11.4954I$
$u = 2.06095 - 0.71154I$ $a = -0.756836 + 0.294907I$ $b = -1.44383 + 0.21091I$	$-6.77311 + 4.75588I$	$-19.9085 - 9.7356I$
$u = 2.06095 + 0.71154I$ $a = -0.756836 - 0.294907I$ $b = -1.44383 - 0.21091I$	$-6.77311 - 4.75588I$	$-19.9085 + 9.7356I$

Solution to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \ \ 2.11416 - 0.55047I$ $a = -0.739747 + 0.359743I$ $b = -1.362677 + 0.322519I$	$-6.65120 + 5.03845I$	$-13.3143 - 5.2572I$
$u = \ \ 2.11416 + 0.55047I$ $a = -0.739747 - 0.359743I$ $b = -1.362677 - 0.322519I$	$-6.65120 - 5.03845I$	$-13.3143 + 5.2572I$
$u = \ \ 2.22508 - 0.66318I$ $a = \ \ 0.734774 - 0.238041I$ $b = \ \ 1.324594 - 0.489779I$	$-6.8504 + 12.4320I$	$-7.07417 - 7.53683I$
$u = \ \ 2.22508 + 0.66318I$ $a = \ \ 0.734774 + 0.238041I$ $b = \ \ 1.324594 + 0.489779I$	$-6.8504 - 12.4320I$	$-7.07417 + 7.53683I$
$u = \ \ 2.23313$ $a = -0.525777$ $b = -1.31890$	-6.33944	-15.0267

III. u-Polynomials

Crossings	u-Polynomials at each crossings
c_1	$(2u^{26}-3u^{25}+\cdots+5u+1)(2u^{115}+9u^{114}+\cdots+2406u-767)$
c_2	$(2u^{26}-5u^{25}+\cdots-2u+1)(2u^{115}+3u^{114}+\cdots+3u-1)$
c_3	$(u^{26}+2u^{25}+\cdots-5u-1)(u^{115}+9u^{114}+\cdots-4u-1)$
c_4	$(u^{26}+3u^{25}+\cdots-5u-1)(u^{115}+2u^{114}+\cdots-3876u+1201)$
c_5	$(2u^{26}+5u^{25}+\cdots+2u+1)(2u^{115}+3u^{114}+\cdots+3u-1)$
c_6	$(u^{26}+u^{25}+\cdots+57u+28)(u^{115}-13u^{113}+\cdots+85279u+38788)$
c_7	$(u^{26}-u^{25}+\cdots+21u+2)(u^{115}+4u^{114}+\cdots+1.15703\times10^{7}u-823526)$
c_8	$(2u^{26}+u^{25}+\cdots-7u-1)(2u^{115}+u^{114}+\cdots+114u+7)$
c_9	$(4u^{26}+61u^{25}+\cdots+12u+1)$ $(12u^{115}+171u^{114}+\cdots+45915u+31917)$
c_{10}	$(u^{26}-3u^{25}+\cdots+5u-1)(u^{115}+2u^{114}+\cdots-3876u+1201)$
c_{11}	$(u^{26}-4u^{25}+\cdots-17u-2)(u^{115}+9u^{114}+\cdots-183323u-19982)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossings
c_1	$(4y^{26}-69y^{25}+\cdots-7y+1)$ $(4y^{115}-105y^{114}+\cdots+35082100y-588289)$
c_2	$(4y^{26}-73y^{25}+\cdots-30y+1)(12y^{115}-711y^{114}+\cdots+81y-3)$
c_3	$(y^{26}+2y^{25}+\cdots-3y+1)(y^{115}-11y^{114}+\cdots+180y-1)$
c_4	$(y^{26}-15y^{25}+\cdots+y+1)$ $(y^{115}-76y^{114}+\cdots+36617356y-1442401)$
c_5	$(4y^{26}-73y^{25}+\cdots-30y+1)(12y^{115}-711y^{114}+\cdots+81y-3)$
c_6	$(y^{26}-9y^{25}+\cdots-9857y+784)$ $(y^{115}-26y^{114}+\cdots+89633162793y-1504508944)$
c_7	$(y^{26}+15y^{25}+\cdots-53y+4)$ $(y^{115}+54y^{114}+\cdots-20235629660845y-678195072676)$
c_8	$(4y^{26}-41y^{25}+\cdots-17y+1)(4y^{115}-61y^{114}+\cdots+886y-49)$
c_9	$(16y^{26}-553y^{25}+\cdots-32y+1)$ $(240y^{115}-8055y^{114}+\cdots+33060488955y-1697824815)$
c_{10}	$(y^{26}-15y^{25}+\cdots+y+1)$ $(y^{115}-76y^{114}+\cdots+36617356y-1442401)$
c_{11}	$(y^{26}-4y^{25}+\cdots-429y+4)$ $(y^{115}+23y^{114}+\cdots-4932760351y-399280324)$