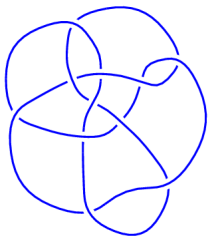
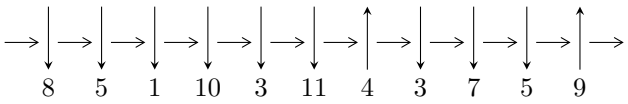
$11n_{174}$ $(K11n_{174})$



1

Arc Sequences



Solving Sequence

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

Representation Ideals

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

$I_1^u = \langle u^{21} - 7u^{20} + \cdots + 6u - 1,$
$- 179554423568382u^{20} + 1734805923660443u^{19} + \cdots + 480983323025423b - 1913091168491335,$
$751723007731913u^{20} - 5390636196405033u^{19} + \cdots + 480983323025423a + 1440628976078441\rangle$

$I_2^u = \langle u^{69} + 4u^{68} + \cdots - 2u - 1,$
$- 3.11626 \times 10^{177}u^{68} - 1.05845 \times 10^{178}u^{67} + \cdots + 2.92366 \times 10^{176}b + 5.45563 \times 10^{177},$
$8.71024 \times 10^{177}u^{68} + 2.92344 \times 10^{178}u^{67} + \cdots + 2.92366 \times 10^{176}a - 1.55261 \times 10^{178}\rangle$

There are 2 irreducible components with 90 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. $I_1^u =$
$\langle u^{21}-7u^{20}+\cdots+6u-1,\ -1.80\times10^{14}u^{20}+1.73\times10^{15}u^{19}+\cdots+4.81\times10^{14}b-1.91\times10^{15},\ 7.52\times10^{14}u^{20}-5.39\times10^{15}u^{19}+\cdots+4.81\times10^{14}a+1.44\times10^{15}\rangle$

(i) Arc colorings

$$a_1 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_3 = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_4 = \begin{pmatrix}-u\\u\end{pmatrix}$$
$$a_8 = \begin{pmatrix}-1.56289u^{20}+11.2075u^{19}+\cdots+15.5856u-2.99517\\0.373307u^{20}-3.60679u^{19}+\cdots-17.2293u+3.97746\end{pmatrix}$$
$$a_9 = \begin{pmatrix}-1.56289u^{20}+11.2075u^{19}+\cdots+15.5856u-2.99517\\1.02405u^{20}-7.86344u^{19}+\cdots-20.3961u+4.24478\end{pmatrix}$$
$$a_7 = \begin{pmatrix}-1.36080u^{20}+9.97170u^{19}+\cdots+12.4172u-2.26885\\0.171216u^{20}-2.37096u^{19}+\cdots-14.0609u+3.25113\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}-3.21182u^{20}+20.7574u^{19}+\cdots+22.5012u-5.23757\\4.40028u^{20}-28.4423u^{19}+\cdots-29.9573u+4.89796\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}-1.89770u^{20}+13.9250u^{19}+\cdots+42.8930u-11.3117\\-0.00228023u^{20}-0.0672106u^{19}+\cdots+0.725886u+0.452672\end{pmatrix}$$
$$a_6 = \begin{pmatrix}-0.912386u^{20}+4.98797u^{19}+\cdots-12.6457u+3.01681\\-0.547484u^{20}+3.50089u^{19}+\cdots+9.24286u-3.42905\end{pmatrix}$$
$$a_5 = \begin{pmatrix}-0.912386u^{20}+4.98797u^{19}+\cdots-12.6457u+3.01681\\-0.00300347u^{20}-0.402229u^{19}+\cdots+1.76284u-2.03032\end{pmatrix}$$
$$a_2 = \begin{pmatrix}2.03191u^{20}-12.0043u^{19}+\cdots+12.9072u-7.13737\\-1.56541u^{20}+10.3797u^{19}+\cdots+17.7528u-2.40752\end{pmatrix}$$
$$a_2 = \begin{pmatrix}2.03191u^{20}-12.0043u^{19}+\cdots+12.9072u-7.13737\\-1.56541u^{20}+10.3797u^{19}+\cdots+17.7528u-2.40752\end{pmatrix}$$

(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
$u=-0.97662-1.13570I$ $a=\ \ 0.551627+0.067797I$ $b=-0.507678-1.116700I$	$-1.14902-4.42293I$	$-3.30825+2.88214I$
$u=-0.97662+1.13570I$ $a=\ \ 0.551627-0.067797I$ $b=-0.507678+1.116700I$	$-1.14902+4.42293I$	$-3.30825-2.88214I$
$u=-0.879141$ $a=-1.65299$ $b=\ \ 1.69686$	-8.35390	-22.8763
$u=-0.665178-0.842689I$ $a=-1.73557+0.05045I$ $b=\ \ 0.258948+1.146532I$	$3.70067-5.02391I$	$-6.64273+2.70695I$
$u=-0.665178+0.842689I$ $a=-1.73557-0.05045I$ $b=\ \ 0.258948-1.146532I$	$3.70067+5.02391I$	$-6.64273-2.70695I$
$u=-0.560375$ $a=\ \ 3.72997$ $b=-1.64273$	-6.81637	11.9476
$u=-0.253776-1.095935I$ $a=-0.577790-0.510716I$ $b=\ \ 0.952981+0.789856I$	$4.41960+1.49996I$	$-7.35710-9.23152I$
$u=-0.253776+1.095935I$ $a=-0.577790+0.510716I$ $b=\ \ 0.952981-0.789856I$	$4.41960-1.49996I$	$-7.35710+9.23152I$
$u=\ \ 0.174494-0.368336I$ $a=\ \ 0.41581+3.05867I$ $b=-1.57199+0.29435I$	$0.00904+5.86285I$	$-6.73177-5.24479I$
$u=\ \ 0.174494+0.368336I$ $a=\ \ 0.41581-3.05867I$ $b=-1.57199-0.29435I$	$0.00904-5.86285I$	$-6.73177+5.24479I$

Solution to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.380351 - 0.331406I$ $a = -2.94885 - 0.27830I$ $b = 1.214612 - 0.050052I$	$1.77824 + 1.61097I$	$-7.53353 + 1.62371I$
$u = 0.380351 + 0.331406I$ $a = -2.94885 + 0.27830I$ $b = 1.214612 + 0.050052I$	$1.77824 - 1.61097I$	$-7.53353 - 1.62371I$
$u = 0.749056 - 0.243938I$ $a = 0.238527 - 0.762123I$ $b = -0.134946 - 0.883731I$	$-6.98589 + 4.93986I$	$-24.1840 - 13.1442I$
$u = 0.749056 + 0.243938I$ $a = 0.238527 + 0.762123I$ $b = -0.134946 + 0.883731I$	$-6.98589 - 4.93986I$	$-24.1840 + 13.1442I$
$u = 1.076805 - 0.397217I$ $a = 0.048851 + 0.555889I$ $b = -0.253722 + 0.248204I$	$-2.44382 + 2.36069I$	$-11.11778 - 3.12439I$
$u = 1.076805 + 0.397217I$ $a = 0.048851 - 0.555889I$ $b = -0.253722 - 0.248204I$	$-2.44382 - 2.36069I$	$-11.11778 + 3.12439I$
$u = 1.17253 - 1.01529I$ $a = 0.638567 + 0.178116I$ $b = -1.205339 + 0.273047I$	$-5.83828 + 3.07420I$	$-16.8807 - 4.9165I$
$u = 1.17253 + 1.01529I$ $a = 0.638567 - 0.178116I$ $b = -1.205339 - 0.273047I$	$-5.83828 - 3.07420I$	$-16.8807 + 4.9165I$
$u = 1.17502 - 1.14396I$ $a = -0.627624 - 0.289059I$ $b = 1.024851 - 0.662264I$	$-5.46548 + 5.39204I$	$-17.4584 - 5.1370I$
$u = 1.17502 + 1.14396I$ $a = -0.627624 + 0.289059I$ $b = 1.024851 + 0.662264I$	$-5.46548 - 5.39204I$	$-17.4584 + 5.1370I$

Solution to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 2.77414$ $a = -0.0840759$ $b = 0.390430$	-10.2279	-83.6429

II. $I_2^u =$
$\langle u^{69}+4u^{68}+\cdots-2u-1,\ -3.12\times10^{177}u^{68}-1.06\times10^{178}u^{67}+\cdots+2.92\times10^{176}b+5.46\times10^{177},\ 8.71\times10^{177}u^{68}+2.92\times10^{178}u^{67}+\cdots+2.92\times10^{176}a-1.55\times10^{178}\rangle$

(i) Arc colorings

$$a_1 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_3 = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_4 = \begin{pmatrix}-u\\u\end{pmatrix}$$
$$a_8 = \begin{pmatrix}-29.7923u^{68}-99.9926u^{67}+\cdots+2.90065u+53.1049\\10.6588u^{68}+36.2030u^{67}+\cdots+3.58555u-18.6603\end{pmatrix}$$
$$a_9 = \begin{pmatrix}-29.7923u^{68}-99.9926u^{67}+\cdots+2.90065u+53.1049\\-1.37760u^{68}-4.52180u^{67}+\cdots+12.1461u+0.516133\end{pmatrix}$$
$$a_7 = \begin{pmatrix}-21.6842u^{68}-72.4674u^{67}+\cdots-3.45448u+40.3606\\2.55068u^{68}+8.67775u^{67}+\cdots+9.94068u-5.91595\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}22.9630u^{68}+78.5383u^{67}+\cdots-51.7245u-34.2796\\-10.3063u^{68}-33.5953u^{67}+\cdots+18.2972u+14.0042\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}-7.24354u^{68}-25.5038u^{67}+\cdots+94.1431u+15.1944\\-7.20018u^{68}-24.7484u^{67}+\cdots-5.48104u+10.9723\end{pmatrix}$$
$$a_6 = \begin{pmatrix}-20.4505u^{68}-69.1597u^{67}+\cdots+10.0487u+24.5962\\5.63610u^{68}+18.3535u^{67}+\cdots-10.5928u-6.75090\end{pmatrix}$$
$$a_5 = \begin{pmatrix}-20.4505u^{68}-69.1597u^{67}+\cdots+10.0487u+24.5962\\13.4909u^{68}+44.8435u^{67}+\cdots-15.4272u-19.3933\end{pmatrix}$$
$$a_2 = \begin{pmatrix}30.6023u^{68}+103.763u^{67}+\cdots+66.7061u-48.5522\\-16.0520u^{68}-55.1169u^{67}+\cdots+1.51166u+26.1481\end{pmatrix}$$
$$a_2 = \begin{pmatrix}30.6023u^{68}+103.763u^{67}+\cdots+66.7061u-48.5522\\-16.0520u^{68}-55.1169u^{67}+\cdots+1.51166u+26.1481\end{pmatrix}$$

(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
$u=-1.23992-1.17294I$ $a=\ \ 0.522123+0.016024I$ $b=-0.359194-1.251258I$	$-1.67434-4.68821I$	$-16.6571+8.7347I$
$u=-1.23992+1.17294I$ $a=\ \ 0.522123-0.016024I$ $b=-0.359194+1.251258I$	$-1.67434+4.68821I$	$-16.6571-8.7347I$
$u=-1.16094-0.97067I$ $a=-1.146821-0.204407I$ $b=\ \ 1.21199+1.42861I$	$0.8188-16.7284I$	$-8.50903+8.72225I$
$u=-1.16094+0.97067I$ $a=-1.146821+0.204407I$ $b=\ \ 1.21199-1.42861I$	$0.8188+16.7284I$	$-8.50903-8.72225I$
$u=-1.15437-0.95333I$ $a=\ \ 1.030116+0.373967I$ $b=-0.93357-1.22951I$	$4.22642-9.68925I$	$-6.35379+6.71868I$
$u=-1.15437+0.95333I$ $a=\ \ 1.030116-0.373967I$ $b=-0.93357+1.22951I$	$4.22642+9.68925I$	$-6.35379-6.71868I$
$u=-1.042362-0.940131I$ $a=-0.698455-0.335411I$ $b=\ \ 0.855314+0.614050I$	$-3.02414-3.47680I$	$-10.30653+3.36014I$
$u=-1.042362+0.940131I$ $a=-0.698455+0.335411I$ $b=\ \ 0.855314-0.614050I$	$-3.02414+3.47680I$	$-10.30653-3.36014I$
$u=-1.005681-0.088139I$ $a=\ \ 0.142656-0.502253I$ $b=-0.46851+1.91024I$	$0.065178+1.027541I$	$-13.48227+0.52294I$
$u=-1.005681+0.088139I$ $a=\ \ 0.142656+0.502253I$ $b=-0.46851-1.91024I$	$0.065178-1.027541I$	$-13.48227-0.52294I$

Solution to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.955096-0.725944I$ $a=-0.625764-0.711880I$ $b=-0.061400+1.340661I$	$4.60897-1.94484I$	$-4.84682+4.19773I$
$u=-0.955096+0.725944I$ $a=-0.625764+0.711880I$ $b=-0.061400-1.340661I$	$4.60897+1.94484I$	$-4.84682-4.19773I$
$u=-0.908478-0.730011I$ $a=\ \ 1.42469+0.23928I$ $b=-1.27778-1.11557I$	$2.99415-8.36107I$	$-7.99825+7.96869I$
$u=-0.908478+0.730011I$ $a=\ \ 1.42469-0.23928I$ $b=-1.27778+1.11557I$	$2.99415+8.36107I$	$-7.99825-7.96869I$
$u=-0.881629-0.857160I$ $a=-1.308559-0.277970I$ $b=\ \ 0.64410+1.44567I$	$4.89807-4.12724I$	$-4.69782+0.44028I$
$u=-0.881629+0.857160I$ $a=-1.308559+0.277970I$ $b=\ \ 0.64410-1.44567I$	$4.89807+4.12724I$	$-4.69782-0.44028I$
$u=-0.86895-1.31509I$ $a=-0.301595-0.580986I$ $b=-0.616489+0.796067I$	$1.92930+8.74493I$	$-7.15428-7.54595I$
$u=-0.86895+1.31509I$ $a=-0.301595+0.580986I$ $b=-0.616489-0.796067I$	$1.92930-8.74493I$	$-7.15428+7.54595I$
$u=-0.859212-0.142030I$ $a=-0.00424-2.13743I$ $b=-0.334527+0.347906I$	$-0.78649+3.40776I$	$-13.45008-2.11393I$
$u=-0.859212+0.142030I$ $a=-0.00424+2.13743I$ $b=-0.334527-0.347906I$	$-0.78649-3.40776I$	$-13.45008+2.11393I$

Solution to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.76674-1.24164I$ $a=\ \ 0.467744+0.515089I$ $b=-0.019818-0.804151I$	$5.46533+1.95793I$	$-2.96663-5.69901I$
$u=-0.76674+1.24164I$ $a=\ \ 0.467744-0.515089I$ $b=-0.019818+0.804151I$	$5.46533-1.95793I$	$-2.96663+5.69901I$
$u=-0.765313$ $a=-1.97735$ $b=\ \ 2.07691$	-7.69036	-12.4713
$u=-0.659162-0.181207I$ $a=-0.179839-1.054070I$ $b=\ \ 0.163071-0.924855I$	$-6.77713-4.78765I$	$1.32076-5.07432I$
$u=-0.659162+0.181207I$ $a=-0.179839+1.054070I$ $b=\ \ 0.163071+0.924855I$	$-6.77713+4.78765I$	$1.32076+5.07432I$
$u=-0.621808-0.568171I$ $a=\ \ 0.325248+1.306640I$ $b=\ \ 0.239992-0.951394I$	$3.48160+3.20310I$	$-5.47034-2.68411I$
$u=-0.621808+0.568171I$ $a=\ \ 0.325248-1.306640I$ $b=\ \ 0.239992+0.951394I$	$3.48160-3.20310I$	$-5.47034+2.68411I$
$u=-0.599878$ $a=\ \ 3.79817$ $b=-1.51470$	-6.98195	-37.6097
$u=-0.542783-0.107606I$ $a=-0.123734+1.378587I$ $b=-0.002602+0.646754I$	$-0.99239-1.75950I$	$-5.61831+3.16702I$
$u=-0.542783+0.107606I$ $a=-0.123734-1.378587I$ $b=-0.002602-0.646754I$	$-0.99239+1.75950I$	$-5.61831-3.16702I$

Solution to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.542319-1.008840I$ $a=-1.59816+0.45416I$ $b=-0.029850+1.209516I$	$3.55336-5.75372I$	$-7.77721+11.54806I$
$u=-0.542319+1.008840I$ $a=-1.59816-0.45416I$ $b=-0.029850-1.209516I$	$3.55336+5.75372I$	$-7.77721-11.54806I$
$u=-0.492279-0.724676I$ $a=\ \ 2.12733+0.25319I$ $b=\ \ 0.029127-0.525037I$	$3.14658-2.19858I$	$-3.43091+3.95001I$
$u=-0.492279+0.724676I$ $a=\ \ 2.12733-0.25319I$ $b=\ \ 0.029127+0.525037I$	$3.14658+2.19858I$	$-3.43091-3.95001I$
$u=-0.479623-0.679365I$ $a=-0.760755-0.452390I$ $b=\ \ 1.47872+1.77401I$	$1.30082-6.59534I$	$-3.81280+10.40418I$
$u=-0.479623+0.679365I$ $a=-0.760755+0.452390I$ $b=\ \ 1.47872-1.77401I$	$1.30082+6.59534I$	$-3.81280-10.40418I$
$u=-0.052324-1.114506I$ $a=\ \ 0.665152+0.433157I$ $b=-1.204862-0.728115I$	$4.45642+1.12527I$	$-4.94973+10.25621I$
$u=-0.052324+1.114506I$ $a=\ \ 0.665152-0.433157I$ $b=-1.204862+0.728115I$	$4.45642-1.12527I$	$-4.94973-10.25621I$
$u=\ \ 0.0178005-0.1236373I$ $a=\ \ 9.19368+3.50452I$ $b=-0.353622-1.283348I$	$3.15602+2.89631I$	$-4.21709-3.80047I$
$u=\ \ 0.0178005+0.1236373I$ $a=\ \ 9.19368-3.50452I$ $b=-0.353622+1.283348I$	$3.15602-2.89631I$	$-4.21709+3.80047I$

Solution to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.403297 - 1.044868I$ $a = -0.780762 + 0.046326I$ $b = 0.112535 - 0.788140I$	$-0.86519 - 1.56917I$	$-6.09339 + 1.52021I$
$u = 0.403297 + 1.044868I$ $a = -0.780762 - 0.046326I$ $b = 0.112535 + 0.788140I$	$-0.86519 + 1.56917I$	$-6.09339 - 1.52021I$
$u = 0.452713$ $a = -1.28092$ $b = 0.485697$	-0.763533	-13.2569
$u = 0.505345 - 0.720301I$ $a = 1.169872 + 0.257284I$ $b = -0.897268 + 0.538700I$	$1.46946 + 2.23986I$	$-4.09553 - 5.07809I$
$u = 0.505345 + 0.720301I$ $a = 1.169872 - 0.257284I$ $b = -0.897268 - 0.538700I$	$1.46946 - 2.23986I$	$-4.09553 + 5.07809I$
$u = 0.536505 - 0.492426I$ $a = 1.64835 + 0.23086I$ $b = -1.55965 + 0.17395I$	$1.79868 + 2.32213I$	$-6.69752 - 8.58341I$
$u = 0.536505 + 0.492426I$ $a = 1.64835 - 0.23086I$ $b = -1.55965 - 0.17395I$	$1.79868 - 2.32213I$	$-6.69752 + 8.58341I$
$u = 0.580347 - 0.911025I$ $a = -0.752367 - 0.460719I$ $b = 0.990508 - 0.620836I$	$-3.03191 + 4.92813I$	$-11.60478 - 6.56674I$
$u = 0.580347 + 0.911025I$ $a = -0.752367 + 0.460719I$ $b = 0.990508 + 0.620836I$	$-3.03191 - 4.92813I$	$-11.60478 + 6.56674I$
$u = 0.595624 - 0.271981I$ $a = 2.24401 + 2.83492I$ $b = -1.100445 + 0.258122I$	$-0.66031 + 6.51484I$	$-14.0708 - 11.3140I$

Solution to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \ 0.595624 + 0.271981I$ $a = \ 2.24401 - 2.83492I$ $b = -1.100445 - 0.258122I$	$-0.66031 - 6.51484I$	$-14.0708 + 11.3140I$
$u = \ 0.669511 - 0.056855I$ $a = -1.58622 + 0.07079I$ $b = \ 2.45831 + 0.84703I$	$-1.06984 + 5.59848I$	$-15.7674 - 5.4445I$
$u = \ 0.669511 + 0.056855I$ $a = -1.58622 - 0.07079I$ $b = \ 2.45831 - 0.84703I$	$-1.06984 - 5.59848I$	$-15.7674 + 5.4445I$
$u = \ 0.734298 - 0.140718I$ $a = -2.37246 - 0.55619I$ $b = \ 0.961601 - 0.365163I$	$0.416185 + 1.079365I$	$-11.76642 - 1.83909I$
$u = \ 0.734298 + 0.140718I$ $a = -2.37246 + 0.55619I$ $b = \ 0.961601 + 0.365163I$	$0.416185 - 1.079365I$	$-11.76642 + 1.83909I$
$u = \ 0.822935 - 0.671293I$ $a = -0.762293 + 0.655986I$ $b = -0.293987 - 0.127937I$	$-3.83982 + 1.81111I$	$-13.9331 - 2.5659I$
$u = \ 0.822935 + 0.671293I$ $a = -0.762293 - 0.655986I$ $b = -0.293987 + 0.127937I$	$-3.83982 - 1.81111I$	$-13.9331 + 2.5659I$
$u = \ 0.992172 - 0.593128I$ $a = -0.0124312 - 0.0271884I$ $b = \ 0.232727 - 0.974899I$	$-4.34006 + 3.63990I$	$-12.62669 - 3.98212I$
$u = \ 0.992172 + 0.593128I$ $a = -0.0124312 + 0.0271884I$ $b = \ 0.232727 + 0.974899I$	$-4.34006 - 3.63990I$	$-12.62669 + 3.98212I$
$u = \ 1.10977 - 1.14019I$ $a = \ 0.667928 + 0.426000I$ $b = -1.225974 + 0.509238I$	$-4.72951 + 5.62545I$	$-6.48829 - 8.05479I$

Solution to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.10977 + 1.14019I$ $a = 0.667928 - 0.426000I$ $b = -1.225974 - 0.509238I$	$-4.72951 - 5.62545I$	$-6.48829 + 8.05479I$
$u = 1.14326$ $a = 0.835561$ $b = -1.17065$	-6.44945	-13.8413
$u = 1.14573 - 0.98423I$ $a = -0.796733 - 0.262080I$ $b = 1.37390 - 0.40261I$	$-5.20276 + 2.53834I$	$-8.34268 + 2.10826I$
$u = 1.14573 + 0.98423I$ $a = -0.796733 + 0.262080I$ $b = 1.37390 + 0.40261I$	$-5.20276 - 2.53834I$	$-8.34268 - 2.10826I$
$u = 1.21646 - 0.85689I$ $a = -0.885092 + 0.399184I$ $b = 0.73917 - 1.35164I$	$-3.14777 + 8.57745I$	$-8.86105 - 7.41388I$
$u = 1.21646 + 0.85689I$ $a = -0.885092 - 0.399184I$ $b = 0.73917 + 1.35164I$	$-3.14777 - 8.57745I$	$-8.86105 + 7.41388I$
$u = 1.38855 - 0.72463I$ $a = 0.377279 - 0.444208I$ $b = -0.342032 + 0.832369I$	$-1.48384 + 3.15855I$	$-5.06321 - 5.36295I$
$u = 1.38855 + 0.72463I$ $a = 0.377279 + 0.444208I$ $b = -0.342032 - 0.832369I$	$-1.48384 - 3.15855I$	$-5.06321 + 5.36295I$
$u = 2.79989$ $a = 0.00472419$ $b = 0.303768$	-10.1736	63.7572

III. u-Polynomials

Crossings	u-Polynomials at each crossings
c_1	$(u^{21}-6u^{19}+\cdots+2u+3)(u^{69}+u^{68}+\cdots-14400u+2701)$
c_2	$(u^{21}-u^{20}+\cdots-2u-1)(u^{69}+23u^{67}+\cdots+26u-1)$
c_3	$(u^{21}+7u^{20}+\cdots+6u+1)(u^{69}+4u^{68}+\cdots-2u-1)$
c_4	$(u^{21}-8u^{19}+\cdots-5u-3)(u^{69}+u^{68}+\cdots+1241u-299)$
c_5	$(u^{21}+u^{20}+\cdots-2u+1)(u^{69}+23u^{67}+\cdots+26u-1)$
c_6	$(u^{21}+4u^{20}+\cdots+97u+7)(u^{69}+5u^{68}+\cdots+41005u-959)$
c_7	$(u^{21}-8u^{18}+\cdots-26u-1)(u^{69}+3u^{68}+\cdots-1626u+131)$
c_8	$(u^{21}-5u^{19}+\cdots-4u-1)(u^{69}+u^{68}+\cdots+26u+1)$
c_9	$(u^{21}+11u^{20}+\cdots+9u+1)(u^{69}+6u^{68}+\cdots-431u-77)$
c_{10}	$(u^{21}-8u^{19}+\cdots-5u+3)(u^{69}+u^{68}+\cdots+1241u-299)$
c_{11}	$(u^{21}-2u^{20}+\cdots-4u-1)(u^{69}+5u^{68}+\cdots-144u+13)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossings
c_1	$(y^{21}-12y^{20}+\cdots+64y-9)$ $(y^{69}+y^{68}+\cdots+37585944y-7295401)$
c_2	$(y^{21}+5y^{20}+\cdots+14y-1)(y^{69}+46y^{68}+\cdots+142y-1)$
c_3	$(y^{21}-9y^{20}+\cdots-16y^2-1)(y^{69}-16y^{68}+\cdots-92y-1)$
c_4	$(y^{21}-16y^{20}+\cdots+55y-9)(y^{69}-39y^{68}+\cdots+2462795y-89401)$
c_5	$(y^{21}+5y^{20}+\cdots+14y-1)(y^{69}+46y^{68}+\cdots+142y-1)$
c_6	$(y^{21}-16y^{20}+\cdots+11327y-49)$ $(y^{69}+5y^{68}+\cdots+1401617939y-919681)$
c_7	$(y^{21}-6y^{19}+\cdots+666y-1)(y^{69}+5y^{68}+\cdots+3046570y-17161)$
c_8	$(y^{21}-10y^{20}+\cdots+12y-1)(y^{69}+7y^{68}+\cdots+6292y-1)$
c_9	$(y^{21}-13y^{20}+\cdots+9y-1)(y^{69}-28y^{68}+\cdots+272925y-5929)$
c_{10}	$(y^{21}-16y^{20}+\cdots+55y-9)(y^{69}-39y^{68}+\cdots+2462795y-89401)$
c_{11}	$(y^{21}-2y^{20}+\cdots+24y-1)(y^{69}-9y^{68}+\cdots+42316y-169)$