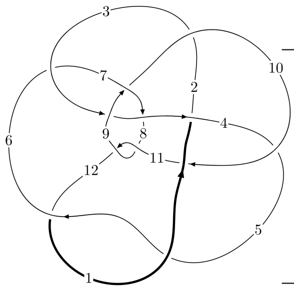
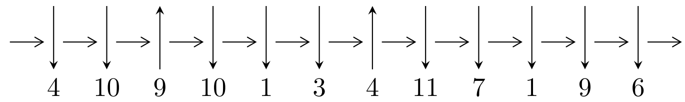
$12n_{0729}$ ($K12n_{0729}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I^u_1 = \langle & 8.98709 \times 10^{197} u^{57} + 3.28099 \times 10^{198} u^{56} + \cdots + 1.56771 \times 10^{200} b + 3.12866 \times 10^{201}, \\
& 4.24469 \times 10^{201} u^{57} + 9.55967 \times 10^{201} u^{56} + \cdots + 1.61004 \times 10^{203} a + 8.17316 \times 10^{204}, \\
& u^{58} + u^{57} + \cdots + 7117u - 1027 \rangle \\
I^u_2 = \langle & 2.79079 \times 10^{21} u^{21} + 1.76550 \times 10^{20} u^{20} + \cdots + 2.38585 \times 10^{23} b - 1.48787 \times 10^{23}, \\
& 4.29144 \times 10^{23} u^{21} + 2.28509 \times 10^{23} u^{20} + \cdots + 2.14726 \times 10^{24} a - 1.05273 \times 10^{24},\ u^{22} - 10u^{20} + \cdots + 73u -
\end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 80 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. $I^u_1 = \langle 8.99 \times 10^{197} u^{57} + 3.28 \times 10^{198} u^{56} + \cdots + 1.57 \times 10^{200} b + 3.13 \times 10^{201},\ 4.24 \times 10^{201} u^{57} + 9.56 \times 10^{201} u^{56} + \cdots + 1.61 \times 10^{203} a + 8.17 \times 10^{204},\ u^{58} + u^{57} + \cdots + 7117u - 1027 \rangle$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -0.0263639u^{57} - 0.0593753u^{56} + \cdots + 306.471u - 50.7637 \\ -0.00573262u^{57} - 0.0209285u^{56} + \cdots + 140.907u - 19.9569 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -0.0320965u^{57} - 0.0803038u^{56} + \cdots + 447.378u - 70.7206 \\ -0.00573262u^{57} - 0.0209285u^{56} + \cdots + 140.907u - 19.9569 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -0.0276476u^{57} - 0.0285016u^{56} + \cdots - 4.44141u - 21.8460 \\ -0.0133010u^{57} - 0.0190926u^{56} + \cdots + 17.6945u - 4.17250 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 0.00962893u^{57} + 0.0347661u^{56} + \cdots - 153.709u + 17.1775 \\ 0.00137276u^{57} + 0.0136626u^{56} + \cdots - 118.572u + 17.6094 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 0.00962893u^{57} + 0.0347661u^{56} + \cdots - 153.709u + 17.1775 \\ -0.0130047u^{57} - 0.0227497u^{56} + \cdots + 50.4397u - 8.20641 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -0.00337579u^{57} + 0.0120164u^{56} + \cdots - 103.269u + 8.97114 \\ -0.0130047u^{57} - 0.0227497u^{56} + \cdots + 50.4397u - 8.20641 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0.0273854u^{57} + 0.0503706u^{56} + \cdots - 200.581u + 48.9873 \\ 0.0113327u^{57} + 0.0369171u^{56} + \cdots - 227.216u + 32.7951 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -0.00894778u^{57} - 0.00254877u^{56} + \cdots - 150.638u + 30.0737 \\ 0.0204778u^{57} + 0.0335185u^{56} + \cdots - 83.8092u + 15.3951 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -0.0314997u^{57} - 0.0527340u^{56} + \cdots + 69.4621u - 13.0531 \\ -0.0300231u^{57} - 0.0787118u^{56} + \cdots + 398.575u - 61.1428 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.0373141u^{57} - 0.119218u^{56} + \cdots + 753.945u - 118.284$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{58} + 7u^{57} + \cdots - 22459u + 1219$
c_2	$u^{58} + 4u^{57} + \cdots + 1084u + 167$
c_3	$u^{58} + u^{57} + \cdots - 283u - 43$
c_4	$u^{58} - u^{57} + \cdots - 7117u - 1027$
c_5, c_{12}	$u^{58} + 2u^{57} + \cdots + 1960u + 664$
c_6	$u^{58} + 6u^{57} + \cdots + 10u + 1$
c_7	$u^{58} + 9u^{56} + \cdots - 10008u - 584$
c_8, c_{11}	$u^{58} + u^{57} + \cdots + 1066u + 97$
c_9	$u^{58} + u^{57} + \cdots + u - 1$
c_{10}	$u^{58} - 4u^{57} + \cdots + 129032u - 9829$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{58} - 61y^{57} + \cdots - 240710163y + 1485961$
c_2	$y^{58} - 8y^{57} + \cdots - 98574y + 27889$
c_3	$y^{58} - 9y^{57} + \cdots - 167293y + 1849$
c_4	$y^{58} - 67y^{57} + \cdots - 53586855y + 1054729$
c_5, c_{12}	$y^{58} + 36y^{57} + \cdots - 6938496y + 440896$
c_6	$y^{58} + 8y^{57} + \cdots - 184y + 1$
c_7	$y^{58} + 18y^{57} + \cdots - 5014784y + 341056$
c_8, c_{11}	$y^{58} + 23y^{57} + \cdots + 106020y + 9409$
c_9	$y^{58} - 19y^{57} + \cdots - 27y + 1$
c_{10}	$y^{58} - 52y^{57} + \cdots - 2754353568y + 96609241$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.984047 + 0.106547I$ $a = 0.732984 + 0.485124I$ $b = -0.71312 + 2.03208I$	$-5.10938 - 4.31500I$	0
$u = -0.984047 - 0.106547I$ $a = 0.732984 - 0.485124I$ $b = -0.71312 - 2.03208I$	$-5.10938 + 4.31500I$	0
$u = 0.951459 + 0.036280I$ $a = 0.756616 + 0.985473I$ $b = -0.14380 + 1.51989I$	$2.83534 - 4.32094I$	0
$u = 0.951459 - 0.036280I$ $a = 0.756616 - 0.985473I$ $b = -0.14380 - 1.51989I$	$2.83534 + 4.32094I$	0
$u = 0.889685 + 0.338008I$ $a = 1.06446 - 1.48155I$ $b = -0.428769 - 0.679768I$	$-0.25157 + 3.22294I$	0
$u = 0.889685 - 0.338008I$ $a = 1.06446 + 1.48155I$ $b = -0.428769 + 0.679768I$	$-0.25157 - 3.22294I$	0
$u = 0.938379 + 0.011522I$ $a = -0.161328 - 0.401628I$ $b = 0.308280 + 0.060433I$	$-1.102690 - 0.062220I$	0
$u = 0.938379 - 0.011522I$ $a = -0.161328 + 0.401628I$ $b = 0.308280 - 0.060433I$	$-1.102690 + 0.062220I$	0
$u = -0.735401 + 0.007028I$ $a = 1.37029 - 1.13833I$ $b = -0.71739 - 1.26490I$	$4.02435 + 6.74078I$	$-6.40897 - 6.18806I$
$u = -0.735401 - 0.007028I$ $a = 1.37029 + 1.13833I$ $b = -0.71739 + 1.26490I$	$4.02435 - 6.74078I$	$-6.40897 + 6.18806I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.611627 + 0.386837I$ $a = 1.49854 - 0.36748I$ $b = -0.269457 + 0.990833I$	$0.571664 - 1.277470I$	$-8.81085 + 0.40906I$
$u = 0.611627 - 0.386837I$ $a = 1.49854 + 0.36748I$ $b = -0.269457 - 0.990833I$	$0.571664 + 1.277470I$	$-8.81085 - 0.40906I$
$u = -0.543172 + 0.422725I$ $a = 0.719118 + 0.935767I$ $b = -1.320790 + 0.324187I$	$4.86373 + 2.09347I$	$-6.47153 - 2.48732I$
$u = -0.543172 - 0.422725I$ $a = 0.719118 - 0.935767I$ $b = -1.320790 - 0.324187I$	$4.86373 - 2.09347I$	$-6.47153 + 2.48732I$
$u = 1.208100 + 0.579060I$ $a = -0.037426 - 0.757251I$ $b = 0.521975 - 0.291948I$	$-0.975445 - 0.218387I$	0
$u = 1.208100 - 0.579060I$ $a = -0.037426 + 0.757251I$ $b = 0.521975 + 0.291948I$	$-0.975445 + 0.218387I$	0
$u = 0.660076$ $a = 0.366125$ $b = 0.323077$	-1.09302	-7.08600
$u = -0.554976 + 0.140362I$ $a = 1.75463 - 1.19601I$ $b = 0.273584 + 0.107138I$	$4.60137 - 0.26241I$	$-5.57820 + 1.37492I$
$u = -0.554976 - 0.140362I$ $a = 1.75463 + 1.19601I$ $b = 0.273584 - 0.107138I$	$4.60137 + 0.26241I$	$-5.57820 - 1.37492I$
$u = 1.34287 + 0.51625I$ $a = 0.360673 - 0.444881I$ $b = -0.86318 - 2.71719I$	$-1.29465 - 2.40549I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.34287 - 0.51625I$ $a = 0.360673 + 0.444881I$ $b = -0.86318 + 2.71719I$	$-1.29465 + 2.40549I$	0
$u = -1.09636 + 0.94746I$ $a = 0.401125 + 0.121349I$ $b = 0.133549 - 1.228370I$	$-4.43749 - 1.69406I$	0
$u = -1.09636 - 0.94746I$ $a = 0.401125 - 0.121349I$ $b = 0.133549 + 1.228370I$	$-4.43749 + 1.69406I$	0
$u = -0.479931 + 0.256201I$ $a = 0.80829 + 1.69787I$ $b = 0.357974 - 0.899794I$	$4.89868 - 5.92269I$	$-8.28735 + 6.67085I$
$u = -0.479931 - 0.256201I$ $a = 0.80829 - 1.69787I$ $b = 0.357974 + 0.899794I$	$4.89868 + 5.92269I$	$-8.28735 - 6.67085I$
$u = -1.45716$ $a = -0.652587$ $b = 1.66458$	-6.65741	0
$u = 1.51660 + 0.17170I$ $a = -0.397509 - 0.123089I$ $b = 2.78994 - 1.29874I$	$-2.05878 - 4.62210I$	0
$u = 1.51660 - 0.17170I$ $a = -0.397509 + 0.123089I$ $b = 2.78994 + 1.29874I$	$-2.05878 + 4.62210I$	0
$u = 0.159997 + 0.444223I$ $a = -0.891005 - 0.942470I$ $b = -0.215135 + 1.292810I$	$5.40486 + 3.03261I$	$-1.43535 + 3.06435I$
$u = 0.159997 - 0.444223I$ $a = -0.891005 + 0.942470I$ $b = -0.215135 - 1.292810I$	$5.40486 - 3.03261I$	$-1.43535 - 3.06435I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.55519+0.00032I$ $a=-0.587461-0.437982I$ $b=0.67801-1.40728I$	$-6.26258-2.81974I$	0
$u=-1.55519-0.00032I$ $a=-0.587461+0.437982I$ $b=0.67801+1.40728I$	$-6.26258+2.81974I$	0
$u=0.127053+0.418851I$ $a=1.23833-1.01400I$ $b=-0.126610+0.836327I$	$-0.617637-1.214780I$	$-6.10791+5.67942I$
$u=0.127053-0.418851I$ $a=1.23833+1.01400I$ $b=-0.126610-0.836327I$	$-0.617637+1.214780I$	$-6.10791-5.67942I$
$u=-1.63145$ $a=0.436826$ $b=-1.65196$	-9.90939	0
$u=1.76333+0.03132I$ $a=-0.750182+0.469345I$ $b=1.20433+1.24812I$	$-4.94459+6.18934I$	0
$u=1.76333-0.03132I$ $a=-0.750182-0.469345I$ $b=1.20433-1.24812I$	$-4.94459-6.18934I$	0
$u=0.222347+0.057423I$ $a=4.52994+3.59770I$ $b=-0.062776-0.383104I$	$1.83627-4.60135I$	$-3.06433+1.23782I$
$u=0.222347-0.057423I$ $a=4.52994-3.59770I$ $b=-0.062776+0.383104I$	$1.83627+4.60135I$	$-3.06433-1.23782I$
$u=-0.48982+1.70817I$ $a=0.647515+0.422020I$ $b=-1.71821+0.15561I$	$6.18677+0.35665I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.48982 - 1.70817I$ $a = 0.647515 - 0.422020I$ $b = -1.71821 - 0.15561I$	$6.18677 - 0.35665I$	0
$u = -1.79356 + 0.11460I$ $a = -0.715949 + 0.568710I$ $b = 0.49033 + 1.44237I$	$-7.85182 + 4.36860I$	0
$u = -1.79356 - 0.11460I$ $a = -0.715949 - 0.568710I$ $b = 0.49033 - 1.44237I$	$-7.85182 - 4.36860I$	0
$u = 1.62131 + 0.77787I$ $a = 0.785352 + 0.143559I$ $b = -1.54041 + 1.26825I$	$-2.94636 - 6.95100I$	0
$u = 1.62131 - 0.77787I$ $a = 0.785352 - 0.143559I$ $b = -1.54041 - 1.26825I$	$-2.94636 + 6.95100I$	0
$u = -1.75534 + 0.48896I$ $a = 0.227519 + 0.805258I$ $b = 0.410897 + 0.818197I$	$0.70429 + 7.95243I$	0
$u = -1.75534 - 0.48896I$ $a = 0.227519 - 0.805258I$ $b = 0.410897 - 0.818197I$	$0.70429 - 7.95243I$	0
$u = -1.80778 + 0.38348I$ $a = -0.171765 - 0.343297I$ $b = 0.191963 - 0.552646I$	$-3.74606 - 2.72375I$	0
$u = -1.80778 - 0.38348I$ $a = -0.171765 + 0.343297I$ $b = 0.191963 + 0.552646I$	$-3.74606 + 2.72375I$	0
$u = 1.90742 + 0.23418I$ $a = -0.392220 - 0.010291I$ $b = -0.096402 - 0.583283I$	$-2.82054 + 3.11371I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.90742 - 0.23418I$ $a = -0.392220 + 0.010291I$ $b = -0.096402 + 0.583283I$	$-2.82054 - 3.11371I$	0
$u = -1.87242 + 0.53585I$ $a = 0.710787 - 0.294332I$ $b = -1.36569 - 1.62804I$	$-0.6525 + 15.7491I$	0
$u = -1.87242 - 0.53585I$ $a = 0.710787 + 0.294332I$ $b = -1.36569 + 1.62804I$	$-0.6525 - 15.7491I$	0
$u = -1.96832$ $a = -1.31909$ $b = 0.902042$	-11.0216	0
$u = 0.12762 + 2.16706I$ $a = -0.451547 + 0.382090I$ $b = 1.61400 - 0.44696I$	$6.61103 - 6.39087I$	0
$u = 0.12762 - 2.16706I$ $a = -0.451547 - 0.382090I$ $b = 1.61400 + 0.44696I$	$6.61103 + 6.39087I$	0
$u = 1.97864 + 0.91027I$ $a = 0.389495 + 0.063606I$ $b = -0.011945 + 1.259660I$	$-1.21978 - 5.87932I$	0
$u = 1.97864 - 0.91027I$ $a = 0.389495 - 0.063606I$ $b = -0.011945 - 1.259660I$	$-1.21978 + 5.87932I$	0

II. $I_2^u = \langle 2.79\times10^{21}u^{21}+1.77\times10^{20}u^{20}+\cdots+2.39\times10^{23}b-1.49\times10^{23},\ 4.29\times10^{23}u^{21}+2.29\times10^{23}u^{20}+\cdots+2.15\times10^{24}a-1.05\times10^{24},\ u^{22}-10u^{20}+\cdots+73u-9\rangle$

(i) Arc colorings

$$a_4 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_5 = \begin{pmatrix}1\\u^2\end{pmatrix}$$
$$a_7 = \begin{pmatrix}-0.199856u^{21}-0.106419u^{20}+\cdots+19.6045u+0.490264\\-0.0116973u^{21}-0.000739990u^{20}+\cdots-7.08742u+0.623622\end{pmatrix}$$
$$a_8 = \begin{pmatrix}-0.211553u^{21}-0.107159u^{20}+\cdots+12.5171u+1.11389\\-0.0116973u^{21}-0.000739990u^{20}+\cdots-7.08742u+0.623622\end{pmatrix}$$
$$a_9 = \begin{pmatrix}-0.336127u^{21}-0.0767089u^{20}+\cdots+51.7425u-6.09472\\-0.00505495u^{21}+0.0250633u^{20}+\cdots-1.05021u+0.800312\end{pmatrix}$$
$$a_3 = \begin{pmatrix}0.324297u^{21}+0.300057u^{20}+\cdots-20.7701u+6.75595\\0.179573u^{21}+0.111102u^{20}+\cdots-23.5518u+3.45052\end{pmatrix}$$
$$a_2 = \begin{pmatrix}0.324297u^{21}+0.300057u^{20}+\cdots-20.7701u+6.75595\\-0.0962234u^{21}-0.138807u^{20}+\cdots-4.56630u+0.750012\end{pmatrix}$$
$$a_1 = \begin{pmatrix}0.228074u^{21}+0.161250u^{20}+\cdots-25.3364u+7.50597\\-0.0962234u^{21}-0.138807u^{20}+\cdots-4.56630u+0.750012\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}0.318413u^{21}+0.152269u^{20}+\cdots-39.8613u+2.56934\\-0.0745587u^{21}-0.0585677u^{20}+\cdots+12.8859u-2.38557\end{pmatrix}$$
$$a_6 = \begin{pmatrix}0.417332u^{21}+0.134515u^{20}+\cdots-84.2017u+11.3295\\0.0872425u^{21}+0.0721007u^{20}+\cdots-7.96511u-0.936957\end{pmatrix}$$
$$a_{12} = \begin{pmatrix}-0.196498u^{21}-0.237839u^{20}+\cdots+11.6692u-7.14808\\-0.238971u^{21}-0.175726u^{20}+\cdots+32.6164u-4.66605\end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -\frac{4574129614316154763308 33}{238584851591663803618957}u^{21}-\frac{2544294521365713872420 67}{238584851591663803618957}u^{20}+\cdots+\frac{589665953769886442799335 34}{238584851591663803618957}u-\frac{102339011560987483892165 10}{238584851591663803618957}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{22} - 12u^{21} + \cdots - 9u + 1$
c_2	$u^{22} - u^{21} + \cdots + 72u - 63$
c_3	$u^{22} - u^{20} + \cdots - 7u + 1$
c_4	$u^{22} - 10u^{20} + \cdots + 73u - 9$
c_5	$u^{22} - u^{21} + \cdots + 24u + 8$
c_6	$u^{22} - u^{21} + \cdots - 16u - 3$
c_7	$u^{22} + 3u^{21} + \cdots + 8u - 56$
c_8	$u^{22} - 2u^{21} + \cdots + 2u + 1$
c_9	$u^{22} + 6u^{21} + \cdots + 5u + 1$
c_{10}	$u^{22} - 7u^{21} + \cdots + 20u - 7$
c_{11}	$u^{22} + 2u^{21} + \cdots - 2u + 1$
c_{12}	$u^{22} + u^{21} + \cdots - 24u + 8$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{22} - 22y^{21} + \cdots + 83y + 1$
c_2	$y^{22} - 13y^{21} + \cdots - 12240y + 3969$
c_3	$y^{22} - 2y^{21} + \cdots - 31y + 1$
c_4	$y^{22} - 20y^{21} + \cdots + 395y + 81$
c_5, c_{12}	$y^{22} + 7y^{21} + \cdots + 64y + 64$
c_6	$y^{22} - 5y^{21} + \cdots - 34y + 9$
c_7	$y^{22} + 5y^{21} + \cdots + 39360y + 3136$
c_8, c_{11}	$y^{22} + 6y^{21} + \cdots - 2y + 1$
c_9	$y^{22} - 12y^{21} + \cdots - 13y + 1$
c_{10}	$y^{22} - 21y^{21} + \cdots + 6y + 49$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.074930 + 0.105891I$ $a = 1.065490 - 0.834834I$ $b = -0.116473 - 0.664580I$	$-0.49759 + 2.56520I$	$-11.45169 - 0.03293I$
$u = 1.074930 - 0.105891I$ $a = 1.065490 + 0.834834I$ $b = -0.116473 + 0.664580I$	$-0.49759 - 2.56520I$	$-11.45169 + 0.03293I$
$u = -0.534288 + 0.431482I$ $a = -0.434617 - 1.025970I$ $b = -0.157192 + 0.475540I$	$-1.81004 - 0.52019I$	$-15.0020 + 3.2051I$
$u = -0.534288 - 0.431482I$ $a = -0.434617 + 1.025970I$ $b = -0.157192 - 0.475540I$	$-1.81004 + 0.52019I$	$-15.0020 - 3.2051I$
$u = 0.661139 + 0.110313I$ $a = 1.56420 + 1.41244I$ $b = -0.229898 + 0.895312I$	$1.36966 - 5.12657I$	$-11.4526 + 9.5918I$
$u = 0.661139 - 0.110313I$ $a = 1.56420 - 1.41244I$ $b = -0.229898 - 0.895312I$	$1.36966 + 5.12657I$	$-11.4526 - 9.5918I$
$u = 1.395400 + 0.151449I$ $a = -0.635171 + 0.368343I$ $b = 1.07115 + 1.63083I$	$-6.51584 + 4.02828I$	$-15.4736 - 6.2870I$
$u = 1.395400 - 0.151449I$ $a = -0.635171 - 0.368343I$ $b = 1.07115 - 1.63083I$	$-6.51584 - 4.02828I$	$-15.4736 + 6.2870I$
$u = -0.51433 + 1.35727I$ $a = 0.844430 + 0.510048I$ $b = -1.50481 + 0.10273I$	$6.84628 + 0.34484I$	$0.584936 + 0.037274I$
$u = -0.51433 - 1.35727I$ $a = 0.844430 - 0.510048I$ $b = -1.50481 - 0.10273I$	$6.84628 - 0.34484I$	$0.584936 - 0.037274I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.07066 + 1.58496I$ $a = -0.581666 + 0.511900I$ $b = 1.29498 - 0.63093I$	$7.58470 - 6.19359I$	$-1.94969 + 4.30160I$
$u = 0.07066 - 1.58496I$ $a = -0.581666 - 0.511900I$ $b = 1.29498 + 0.63093I$	$7.58470 + 6.19359I$	$-1.94969 - 4.30160I$
$u = 1.62037$ $a = 0.458428$ $b = -1.67473$	-9.98265	-65.6220
$u = 1.38984 + 0.85119I$ $a = -0.299446 + 0.142790I$ $b = 0.092686 - 1.119880I$	$-4.73458 + 2.11091I$	$-18.7205 - 5.4471I$
$u = 1.38984 - 0.85119I$ $a = -0.299446 - 0.142790I$ $b = 0.092686 + 1.119880I$	$-4.73458 - 2.11091I$	$-18.7205 + 5.4471I$
$u = -1.67782 + 0.22721I$ $a = -0.181061 + 0.126576I$ $b = 1.29986 + 1.32033I$	$-1.70506 + 4.08011I$	$-6.63396 - 1.41336I$
$u = -1.67782 - 0.22721I$ $a = -0.181061 - 0.126576I$ $b = 1.29986 - 1.32033I$	$-1.70506 - 4.08011I$	$-6.63396 + 1.41336I$
$u = 0.124026 + 0.167304I$ $a = 3.57897 - 0.31377I$ $b = -0.39813 - 1.50149I$	$5.23332 - 3.56725I$	$-5.47085 + 9.86595I$
$u = 0.124026 - 0.167304I$ $a = 3.57897 + 0.31377I$ $b = -0.39813 + 1.50149I$	$5.23332 + 3.56725I$	$-5.47085 - 9.86595I$
$u = -1.82014 + 0.10403I$ $a = -0.726378 + 0.567727I$ $b = 0.55876 + 1.35106I$	$-8.37280 + 4.49491I$	$-17.7083 - 5.1691I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.82014-0.10403I$ $a=-0.726378-0.567727I$ $b=\quad 0.55876-1.35106I$	$-8.37280-4.49491I$	$-17.7083+5.1691I$
$u=-1.95919$ $a=-1.29238$ $b=\quad 0.852875$	-11.1324	-44.8210

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{22}-12u^{21}+\cdots-9u+1)(u^{58}+7u^{57}+\cdots-22459u+1219)$
c_2	$(u^{22}-u^{21}+\cdots+72u-63)(u^{58}+4u^{57}+\cdots+1084u+167)$
c_3	$(u^{22}-u^{20}+\cdots-7u+1)(u^{58}+u^{57}+\cdots-283u-43)$
c_4	$(u^{22}-10u^{20}+\cdots+73u-9)(u^{58}-u^{57}+\cdots-7117u-1027)$
c_5	$(u^{22}-u^{21}+\cdots+24u+8)(u^{58}+2u^{57}+\cdots+1960u+664)$
c_6	$(u^{22}-u^{21}+\cdots-16u-3)(u^{58}+6u^{57}+\cdots+10u+1)$
c_7	$(u^{22}+3u^{21}+\cdots+8u-56)(u^{58}+9u^{56}+\cdots-10008u-584)$
c_8	$(u^{22}-2u^{21}+\cdots+2u+1)(u^{58}+u^{57}+\cdots+1066u+97)$
c_9	$(u^{22}+6u^{21}+\cdots+5u+1)(u^{58}+u^{57}+\cdots+u-1)$
c_{10}	$(u^{22}-7u^{21}+\cdots+20u-7)(u^{58}-4u^{57}+\cdots+129032u-9829)$
c_{11}	$(u^{22}+2u^{21}+\cdots-2u+1)(u^{58}+u^{57}+\cdots+1066u+97)$
c_{12}	$(u^{22}+u^{21}+\cdots-24u+8)(u^{58}+2u^{57}+\cdots+1960u+664)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{22} - 22y^{21} + \cdots + 83y + 1)$ $\cdot\,(y^{58} - 61y^{57} + \cdots - 240710163y + 1485961)$
c_2	$(y^{22} - 13y^{21} + \cdots - 12240y + 3969)$ $\cdot\,(y^{58} - 8y^{57} + \cdots - 98574y + 27889)$
c_3	$(y^{22} - 2y^{21} + \cdots - 31y + 1)(y^{58} - 9y^{57} + \cdots - 167293y + 1849)$
c_4	$(y^{22} - 20y^{21} + \cdots + 395y + 81)$ $\cdot\,(y^{58} - 67y^{57} + \cdots - 53586855y + 1054729)$
c_5, c_{12}	$(y^{22} + 7y^{21} + \cdots + 64y + 64)$ $\cdot\,(y^{58} + 36y^{57} + \cdots - 6938496y + 440896)$
c_6	$(y^{22} - 5y^{21} + \cdots - 34y + 9)(y^{58} + 8y^{57} + \cdots - 184y + 1)$
c_7	$(y^{22} + 5y^{21} + \cdots + 39360y + 3136)$ $\cdot\,(y^{58} + 18y^{57} + \cdots - 5014784y + 341056)$
c_8, c_{11}	$(y^{22} + 6y^{21} + \cdots - 2y + 1)(y^{58} + 23y^{57} + \cdots + 106020y + 9409)$
c_9	$(y^{22} - 12y^{21} + \cdots - 13y + 1)(y^{58} - 19y^{57} + \cdots - 27y + 1)$
c_{10}	$(y^{22} - 21y^{21} + \cdots + 6y + 49)$ $\cdot\,(y^{58} - 52y^{57} + \cdots - 2754353568y + 96609241)$