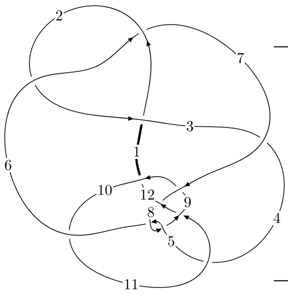
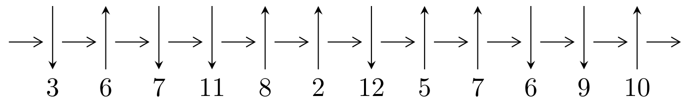
$12n_{0298}$ ($K12n_{0298}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle 1.39637 \times 10^{86} u^{63} + 5.43528 \times 10^{86} u^{62} + \cdots + 2.96182 \times 10^{85} b - 1.86518 \times 10^{86},$$
$$- 2.24145 \times 10^{86} u^{63} - 9.03174 \times 10^{86} u^{62} + \cdots + 2.96182 \times 10^{85} a - 2.29298 \times 10^{85},\ u^{64} + 4u^{63} + \cdots - 4u -$$
$$I_2^u = \langle 2u^{19} + 7u^{17} + \cdots + b - 4u,\ -2u^{19} + u^{18} + \cdots + a - 1,\ u^{20} - u^{19} + \cdots - 2u + 1\rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 84 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.

$\boldsymbol{I_1^u = \langle 1.40\times10^{86}u^{63}+5.44\times10^{86}u^{62}+\cdots+2.96\times10^{85}b-1.87\times10^{86},\ -2.24\times10^{86}u^{63}-9.03\times10^{86}u^{62}+\cdots+2.96\times10^{85}a-2.29\times10^{85},\ u^{64}+4u^{63}+\cdots-4u+1\rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} u^4+u^2+1 \\ u^4 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 7.56782u^{63}+30.4939u^{62}+\cdots+24.0222u+0.774178 \\ -4.71457u^{63}-18.3512u^{62}+\cdots-27.2378u+6.29741 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 7.56782u^{63}+30.4939u^{62}+\cdots+24.0222u+0.774178 \\ -6.38660u^{63}-24.4128u^{62}+\cdots-33.9152u+6.07481 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^2+1 \\ -u^4 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 3.86933u^{63}+16.0937u^{62}+\cdots+10.6018u+1.05869 \\ -8.41306u^{63}-32.7513u^{62}+\cdots-40.6582u+6.58192 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 6.42367u^{63}+32.1547u^{62}+\cdots-45.0142u+17.0072 \\ 3.79100u^{63}+16.1352u^{62}+\cdots+0.840596u+4.38519 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 0.562618u^{63}+2.63121u^{62}+\cdots-36.1172u+8.44512 \\ 4.32626u^{63}+17.5719u^{62}+\cdots+18.4608u-1.19617 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 5.84919u^{63}+21.5137u^{62}+\cdots+53.4241u-7.65911 \\ 1.92460u^{63}+7.73661u^{62}+\cdots+10.1183u-1.34592 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 30.7036u^{63}+141.686u^{62}+\cdots-73.0395u+38.2307$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{64} + 14u^{63} + \cdots + 30u + 1$
c_2, c_6	$u^{64} - 4u^{63} + \cdots + 4u + 1$
c_3	$u^{64} + 4u^{63} + \cdots - 4232566u + 8381893$
c_4	$u^{64} + 3u^{63} + \cdots - 317686u + 108431$
c_5, c_8	$u^{64} + u^{63} + \cdots + 8u^2 + 1$
c_7	$u^{64} + 3u^{63} + \cdots - 14u + 1$
c_9	$u^{64} + 15u^{63} + \cdots + 1193304u + 134569$
c_{10}	$u^{64} + 2u^{63} + \cdots - 28804u + 319$
c_{11}	$u^{64} - 13u^{63} + \cdots - 516u + 31$
c_{12}	$u^{64} - 11u^{63} + \cdots + 4233776u + 540971$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{64} + 82y^{63} + \cdots + 154y + 1$
c_2, c_6	$y^{64} + 14y^{63} + \cdots + 30y + 1$
c_3	$y^{64} + 162y^{63} + \cdots + 4185418110089892y + 70256130263449$
c_4	$y^{64} + 29y^{63} + \cdots + 248335976782y + 11757281761$
c_5, c_8	$y^{64} + 43y^{63} + \cdots + 16y + 1$
c_7	$y^{64} + 5y^{63} + \cdots - 30y + 1$
c_9	$y^{64} - 59y^{63} + \cdots - 87140422306y + 18108815761$
c_{10}	$y^{64} + 100y^{63} + \cdots - 262631966y + 101761$
c_{11}	$y^{64} + y^{63} + \cdots + 5676y + 961$
c_{12}	$y^{64} - 91y^{63} + \cdots - 7005093425444y + 292649622841$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.939075 + 0.271602I$ $a = 0.482093 - 0.464401I$ $b = -0.755445 - 0.284336I$	$-0.44441 - 3.98622I$	0
$u = 0.939075 - 0.271602I$ $a = 0.482093 + 0.464401I$ $b = -0.755445 + 0.284336I$	$-0.44441 + 3.98622I$	0
$u = -0.722916 + 0.601079I$ $a = 0.123478 - 0.330623I$ $b = 1.32766 - 0.80295I$	$-1.03187 - 6.00979I$	$0. + 8.60089I$
$u = -0.722916 - 0.601079I$ $a = 0.123478 + 0.330623I$ $b = 1.32766 + 0.80295I$	$-1.03187 + 6.00979I$	$0. - 8.60089I$
$u = -0.432677 + 0.976451I$ $a = 0.843388 - 0.347446I$ $b = 0.197103 + 0.398413I$	$-2.46162 + 1.46729I$	0
$u = -0.432677 - 0.976451I$ $a = 0.843388 + 0.347446I$ $b = 0.197103 - 0.398413I$	$-2.46162 - 1.46729I$	0
$u = 0.194061 + 1.056770I$ $a = 0.586720 + 0.232918I$ $b = 0.052356 - 0.350919I$	$-1.71226 + 0.14587I$	0
$u = 0.194061 - 1.056770I$ $a = 0.586720 - 0.232918I$ $b = 0.052356 + 0.350919I$	$-1.71226 - 0.14587I$	0
$u = -0.475448 + 0.789845I$ $a = 0.290628 - 0.808412I$ $b = 0.868055 - 0.780912I$	$0.01302 - 1.90453I$	$0. + 2.57583I$
$u = -0.475448 - 0.789845I$ $a = 0.290628 + 0.808412I$ $b = 0.868055 + 0.780912I$	$0.01302 + 1.90453I$	$0. - 2.57583I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.791240 + 0.428776I$ $a = 0.912391 + 1.040550I$ $b = -0.676221 + 0.565206I$	$2.49559 - 1.05555I$	$7.00649 + 1.32061I$
$u = -0.791240 - 0.428776I$ $a = 0.912391 - 1.040550I$ $b = -0.676221 - 0.565206I$	$2.49559 + 1.05555I$	$7.00649 - 1.32061I$
$u = 0.400359 + 0.788642I$ $a = -0.069876 + 1.329720I$ $b = 1.035650 + 0.916049I$	$-0.52477 + 4.45766I$	$-3.10979 - 9.91982I$
$u = 0.400359 - 0.788642I$ $a = -0.069876 - 1.329720I$ $b = 1.035650 - 0.916049I$	$-0.52477 - 4.45766I$	$-3.10979 + 9.91982I$
$u = 0.299647 + 0.825342I$ $a = -0.912074 + 0.700445I$ $b = -1.95342 + 1.10428I$	$-3.49922 - 2.68192I$	$-5.19582 + 0.87569I$
$u = 0.299647 - 0.825342I$ $a = -0.912074 - 0.700445I$ $b = -1.95342 - 1.10428I$	$-3.49922 + 2.68192I$	$-5.19582 - 0.87569I$
$u = 0.589193 + 0.551154I$ $a = 0.85587 - 2.43022I$ $b = -0.536571 - 0.801267I$	$-2.27399 + 6.14015I$	$2.22329 - 10.33949I$
$u = 0.589193 - 0.551154I$ $a = 0.85587 + 2.43022I$ $b = -0.536571 + 0.801267I$	$-2.27399 - 6.14015I$	$2.22329 + 10.33949I$
$u = 0.274975 + 1.168590I$ $a = -0.0110651 + 0.0113996I$ $b = -0.306856 + 0.642395I$	$-5.23856 - 0.57022I$	0
$u = 0.274975 - 1.168590I$ $a = -0.0110651 - 0.0113996I$ $b = -0.306856 - 0.642395I$	$-5.23856 + 0.57022I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.457124+1.152150I$ $a=-0.645292-0.183503I$ $b=-1.24538-1.10620I$	$-0.02531-3.74403I$	0
$u=-0.457124-1.152150I$ $a=-0.645292+0.183503I$ $b=-1.24538+1.10620I$	$-0.02531+3.74403I$	0
$u=-0.879640+0.881204I$ $a=-0.79455+1.61194I$ $b=-1.45624+0.94426I$	$6.66965-5.86737I$	0
$u=-0.879640-0.881204I$ $a=-0.79455-1.61194I$ $b=-1.45624-0.94426I$	$6.66965+5.86737I$	0
$u=-0.838867+0.958647I$ $a=-1.35935+0.86354I$ $b=-1.99957+0.33680I$	$6.41424-0.52117I$	0
$u=-0.838867-0.958647I$ $a=-1.35935-0.86354I$ $b=-1.99957-0.33680I$	$6.41424+0.52117I$	0
$u=0.897037+0.932073I$ $a=-1.13339-1.29721I$ $b=-1.76535-0.72437I$	$8.51868+3.30961I$	0
$u=0.897037-0.932073I$ $a=-1.13339+1.29721I$ $b=-1.76535+0.72437I$	$8.51868-3.30961I$	0
$u=0.530563+0.465648I$ $a=-0.472852+0.171059I$ $b=1.121760+0.641421I$	$0.55435+2.88435I$	$4.59418-0.12217I$
$u=0.530563-0.465648I$ $a=-0.472852-0.171059I$ $b=1.121760-0.641421I$	$0.55435-2.88435I$	$4.59418+0.12217I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.385835 + 0.588474I$ $a = 0.836666 - 0.736399I$ $b = 0.811989 - 0.180829I$	$0.38260 - 1.61712I$	$2.69865 + 4.73413I$
$u = -0.385835 - 0.588474I$ $a = 0.836666 + 0.736399I$ $b = 0.811989 + 0.180829I$	$0.38260 + 1.61712I$	$2.69865 - 4.73413I$
$u = -1.026810 + 0.827404I$ $a = -0.507979 + 1.128420I$ $b = -1.29031 + 0.58664I$	$7.40053 - 0.12600I$	0
$u = -1.026810 - 0.827404I$ $a = -0.507979 - 1.128420I$ $b = -1.29031 - 0.58664I$	$7.40053 + 0.12600I$	0
$u = 0.488940 + 1.231620I$ $a = -0.531491 - 0.111009I$ $b = -1.041740 + 0.612916I$	$-3.67677 + 9.30666I$	0
$u = 0.488940 - 1.231620I$ $a = -0.531491 + 0.111009I$ $b = -1.041740 - 0.612916I$	$-3.67677 - 9.30666I$	0
$u = -0.063841 + 0.650559I$ $a = 0.415319 - 0.941017I$ $b = -0.556116 - 1.216000I$	$-1.14528 - 1.52727I$	$-4.52889 + 4.44249I$
$u = -0.063841 - 0.650559I$ $a = 0.415319 + 0.941017I$ $b = -0.556116 + 1.216000I$	$-1.14528 + 1.52727I$	$-4.52889 - 4.44249I$
$u = -1.037000 + 0.860981I$ $a = 1.10948 - 1.12589I$ $b = 1.60768 + 0.28265I$	$7.61657 + 8.96188I$	0
$u = -1.037000 - 0.860981I$ $a = 1.10948 + 1.12589I$ $b = 1.60768 - 0.28265I$	$7.61657 - 8.96188I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.026730 + 0.876368I$ $a = 1.16571 + 1.14718I$ $b = 1.66461 - 0.43980I$	$11.07350 - 2.80334I$	0
$u = 1.026730 - 0.876368I$ $a = 1.16571 - 1.14718I$ $b = 1.66461 + 0.43980I$	$11.07350 + 2.80334I$	0
$u = 0.931671 + 0.980831I$ $a = -0.964496 - 1.016020I$ $b = -1.62384 - 0.47553I$	$8.77138 + 3.50074I$	0
$u = 0.931671 - 0.980831I$ $a = -0.964496 + 1.016020I$ $b = -1.62384 + 0.47553I$	$8.77138 - 3.50074I$	0
$u = 0.987503 + 0.947834I$ $a = -0.788697 - 1.062230I$ $b = -1.48014 - 0.52580I$	$8.90447 + 3.52447I$	0
$u = 0.987503 - 0.947834I$ $a = -0.788697 + 1.062230I$ $b = -1.48014 + 0.52580I$	$8.90447 - 3.52447I$	0
$u = -0.045837 + 0.617197I$ $a = -1.26636 - 2.43670I$ $b = 0.525231 - 0.836008I$	$-4.46639 - 4.92939I$	$-10.22682 + 5.98582I$
$u = -0.045837 - 0.617197I$ $a = -1.26636 + 2.43670I$ $b = 0.525231 + 0.836008I$	$-4.46639 + 4.92939I$	$-10.22682 - 5.98582I$
$u = -1.078850 + 0.866107I$ $a = 1.51083 - 1.33022I$ $b = 2.08515 + 1.50091I$	$5.10332 - 3.48279I$	0
$u = -1.078850 - 0.866107I$ $a = 1.51083 + 1.33022I$ $b = 2.08515 - 1.50091I$	$5.10332 + 3.48279I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.173180 + 0.577072I$ $a = 0.03202 + 1.82163I$ $b = -0.96370 + 2.09264I$	$-4.26610 + 5.45717I$	$-10.43636 - 7.95059I$
$u = 0.173180 - 0.577072I$ $a = 0.03202 - 1.82163I$ $b = -0.96370 - 2.09264I$	$-4.26610 - 5.45717I$	$-10.43636 + 7.95059I$
$u = 0.916042 + 1.056350I$ $a = 0.83523 + 1.32696I$ $b = 2.38551 + 1.05444I$	$10.4719 + 9.8985I$	0
$u = 0.916042 - 1.056350I$ $a = 0.83523 - 1.32696I$ $b = 2.38551 - 1.05444I$	$10.4719 - 9.8985I$	0
$u = -0.909045 + 1.065430I$ $a = 0.88608 - 1.31653I$ $b = 2.29397 - 1.02161I$	$6.9320 - 16.0572I$	0
$u = -0.909045 - 1.065430I$ $a = 0.88608 + 1.31653I$ $b = 2.29397 + 1.02161I$	$6.9320 + 16.0572I$	0
$u = -0.893030 + 1.085020I$ $a = -0.944848 + 0.755591I$ $b = -1.58267 + 0.22697I$	$6.56784 - 6.89474I$	0
$u = -0.893030 - 1.085020I$ $a = -0.944848 - 0.755591I$ $b = -1.58267 - 0.22697I$	$6.56784 + 6.89474I$	0
$u = -0.96327 + 1.05484I$ $a = 0.81866 - 1.54930I$ $b = 3.05198 - 0.85138I$	$4.50809 - 3.90305I$	0
$u = -0.96327 - 1.05484I$ $a = 0.81866 + 1.54930I$ $b = 3.05198 + 0.85138I$	$4.50809 + 3.90305I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.121840 + 0.455209I$ $a = 1.85406 - 0.09378I$ $b = 0.819408 - 0.701563I$	$0.33452 - 1.86534I$	$2.56057 + 3.02633I$
$u = 0.121840 - 0.455209I$ $a = 1.85406 + 0.09378I$ $b = 0.819408 + 0.701563I$	$0.33452 + 1.86534I$	$2.56057 - 3.02633I$
$u = 0.230599 + 0.231903I$ $a = -2.65631 - 1.10766I$ $b = 0.885454 + 0.326045I$	$0.41148 + 2.24866I$	$3.48307 - 5.05352I$
$u = 0.230599 - 0.231903I$ $a = -2.65631 + 1.10766I$ $b = 0.885454 - 0.326045I$	$0.41148 - 2.24866I$	$3.48307 + 5.05352I$

II.

$\boldsymbol{I^u_2 = \langle 2u^{19}+7u^{17}+\cdots+b-4u,\ -2u^{19}+u^{18}+\cdots+a-1,\ u^{20}-u^{19}+\cdots-2u+1\rangle}$

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 9u^{19}-4u^{18}+34u^{17}-7u^{16}+85u^{15}-23u^{14}+161u^{13}-51u^{12}+214u^{11}-67u^{10}+158u^9-55u^8+43u^7-46u^6-26u^5-41u^4-8u^3-22u^2-u-16$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{20} - 9u^{19} + \cdots - 8u + 1$
c_2	$u^{20} - u^{19} + \cdots - 2u + 1$
c_3	$u^{20} + u^{19} + \cdots - 8u + 1$
c_4	$u^{20} + 4u^{19} + \cdots + 2u + 1$
c_5	$u^{20} + 9u^{18} + \cdots + 2u + 1$
c_6	$u^{20} + u^{19} + \cdots + 2u + 1$
c_7	$u^{20} + 2u^{19} + \cdots + 6u + 1$
c_8	$u^{20} + 9u^{18} + \cdots - 2u + 1$
c_9	$u^{20} + 6u^{19} + \cdots + 2u + 1$
c_{10}	$u^{20} + u^{19} + \cdots - 4u + 1$
c_{11}	$u^{20} + 8u^{19} + \cdots + 4u + 1$
c_{12}	$u^{20} - 12u^{19} + \cdots - 6u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{20} + 13y^{19} + \cdots + 20y + 1$
c_2, c_6	$y^{20} + 9y^{19} + \cdots + 8y + 1$
c_3	$y^{20} + 29y^{19} + \cdots - 10y + 1$
c_4	$y^{20} + 4y^{19} + \cdots - 12y + 1$
c_5, c_8	$y^{20} + 18y^{19} + \cdots + 10y + 1$
c_7	$y^{20} + 2y^{18} + \cdots - 20y + 1$
c_9	$y^{20} - 20y^{19} + \cdots + 2y^2 + 1$
c_{10}	$y^{20} + 15y^{19} + \cdots - 4y + 1$
c_{11}	$y^{20} - 8y^{19} + \cdots + 2y + 1$
c_{12}	$y^{20} - 12y^{19} + \cdots + 10y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.133168 + 1.051170I$ $a = 0.949802 + 0.057848I$ $b = 0.467686 + 0.288113I$	$-1.35651 + 1.16657I$	$1.05283 - 4.51213I$
$u = -0.133168 - 1.051170I$ $a = 0.949802 - 0.057848I$ $b = 0.467686 - 0.288113I$	$-1.35651 - 1.16657I$	$1.05283 + 4.51213I$
$u = -0.388238 + 1.004590I$ $a = 0.496532 + 0.200270I$ $b = 1.47658 + 0.60423I$	$-0.87995 - 3.76439I$	$-4.04375 + 6.88348I$
$u = -0.388238 - 1.004590I$ $a = 0.496532 - 0.200270I$ $b = 1.47658 - 0.60423I$	$-0.87995 + 3.76439I$	$-4.04375 - 6.88348I$
$u = -0.407946 + 0.770783I$ $a = 0.167116 - 0.458391I$ $b = -0.406625 + 0.480005I$	$-0.149706 + 0.500341I$	$2.17204 + 0.29125I$
$u = -0.407946 - 0.770783I$ $a = 0.167116 + 0.458391I$ $b = -0.406625 - 0.480005I$	$-0.149706 - 0.500341I$	$2.17204 - 0.29125I$
$u = 0.517514 + 1.067790I$ $a = 0.312393 - 0.547705I$ $b = 0.860626 - 0.777046I$	$-4.91212 + 8.66631I$	$-5.37283 - 6.56810I$
$u = 0.517514 - 1.067790I$ $a = 0.312393 + 0.547705I$ $b = 0.860626 + 0.777046I$	$-4.91212 - 8.66631I$	$-5.37283 + 6.56810I$
$u = 0.414696 + 1.121450I$ $a = 0.616873 - 0.475026I$ $b = 0.685695 - 1.098930I$	$-5.57840 - 1.56382I$	$-6.00081 + 3.18452I$
$u = 0.414696 - 1.121450I$ $a = 0.616873 + 0.475026I$ $b = 0.685695 + 1.098930I$	$-5.57840 + 1.56382I$	$-6.00081 - 3.18452I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.393897 + 0.665781I$ $a = 0.092647 - 0.940148I$ $b = 1.37333 - 0.87165I$	$-0.11330 - 3.36458I$	$-3.05713 + 6.74431I$
$u = -0.393897 - 0.665781I$ $a = 0.092647 + 0.940148I$ $b = 1.37333 + 0.87165I$	$-0.11330 + 3.36458I$	$-3.05713 - 6.74431I$
$u = 0.493601 + 0.555703I$ $a = -0.72132 + 1.24890I$ $b = -0.779779 + 0.032785I$	$-3.21796 - 4.42430I$	$-1.43749 + 3.47963I$
$u = 0.493601 - 0.555703I$ $a = -0.72132 - 1.24890I$ $b = -0.779779 - 0.032785I$	$-3.21796 + 4.42430I$	$-1.43749 - 3.47963I$
$u = 0.925814 + 0.939172I$ $a = -0.96685 - 1.16407I$ $b = -1.53715 - 0.69330I$	$7.91169 + 3.39538I$	$-5.49582 - 2.79697I$
$u = 0.925814 - 0.939172I$ $a = -0.96685 + 1.16407I$ $b = -1.53715 + 0.69330I$	$7.91169 - 3.39538I$	$-5.49582 + 2.79697I$
$u = 0.495885 + 0.454566I$ $a = -1.23104 + 1.75062I$ $b = 0.319624 + 1.323120I$	$-3.23795 + 5.41696I$	$-2.08175 - 6.69309I$
$u = 0.495885 - 0.454566I$ $a = -1.23104 - 1.75062I$ $b = 0.319624 - 1.323120I$	$-3.23795 - 5.41696I$	$-2.08175 + 6.69309I$
$u = -1.024260 + 0.937435I$ $a = -1.21615 + 1.40368I$ $b = -2.46000 - 0.55113I$	$4.95446 - 3.69253I$	$2.76469 + 12.91616I$
$u = -1.024260 - 0.937435I$ $a = -1.21615 - 1.40368I$ $b = -2.46000 + 0.55113I$	$4.95446 + 3.69253I$	$2.76469 - 12.91616I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{20} - 9u^{19} + \cdots - 8u + 1)(u^{64} + 14u^{63} + \cdots + 30u + 1)$
c_2	$(u^{20} - u^{19} + \cdots - 2u + 1)(u^{64} - 4u^{63} + \cdots + 4u + 1)$
c_3	$(u^{20} + u^{19} + \cdots - 8u + 1)(u^{64} + 4u^{63} + \cdots - 4232566u + 8381893)$
c_4	$(u^{20} + 4u^{19} + \cdots + 2u + 1)(u^{64} + 3u^{63} + \cdots - 317686u + 108431)$
c_5	$(u^{20} + 9u^{18} + \cdots + 2u + 1)(u^{64} + u^{63} + \cdots + 8u^2 + 1)$
c_6	$(u^{20} + u^{19} + \cdots + 2u + 1)(u^{64} - 4u^{63} + \cdots + 4u + 1)$
c_7	$(u^{20} + 2u^{19} + \cdots + 6u + 1)(u^{64} + 3u^{63} + \cdots - 14u + 1)$
c_8	$(u^{20} + 9u^{18} + \cdots - 2u + 1)(u^{64} + u^{63} + \cdots + 8u^2 + 1)$
c_9	$(u^{20} + 6u^{19} + \cdots + 2u + 1)(u^{64} + 15u^{63} + \cdots + 1193304u + 134569)$
c_{10}	$(u^{20} + u^{19} + \cdots - 4u + 1)(u^{64} + 2u^{63} + \cdots - 28804u + 319)$
c_{11}	$(u^{20} + 8u^{19} + \cdots + 4u + 1)(u^{64} - 13u^{63} + \cdots - 516u + 31)$
c_{12}	$(u^{20} - 12u^{19} + \cdots - 6u + 1)(u^{64} - 11u^{63} + \cdots + 4233776u + 540971)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{20}+13y^{19}+\cdots+20y+1)(y^{64}+82y^{63}+\cdots+154y+1)$
c_2, c_6	$(y^{20}+9y^{19}+\cdots+8y+1)(y^{64}+14y^{63}+\cdots+30y+1)$
c_3	$(y^{20}+29y^{19}+\cdots-10y+1)$ $\cdot(y^{64}+162y^{63}+\cdots+4185418110089892y+70256130263449)$
c_4	$(y^{20}+4y^{19}+\cdots-12y+1)$ $\cdot(y^{64}+29y^{63}+\cdots+248335976782y+11757281761)$
c_5, c_8	$(y^{20}+18y^{19}+\cdots+10y+1)(y^{64}+43y^{63}+\cdots+16y+1)$
c_7	$(y^{20}+2y^{18}+\cdots-20y+1)(y^{64}+5y^{63}+\cdots-30y+1)$
c_9	$(y^{20}-20y^{19}+\cdots+2y^2+1)$ $\cdot(y^{64}-59y^{63}+\cdots-87140422306y+18108815761)$
c_{10}	$(y^{20}+15y^{19}+\cdots-4y+1)$ $\cdot(y^{64}+100y^{63}+\cdots-262631966y+101761)$
c_{11}	$(y^{20}-8y^{19}+\cdots+2y+1)(y^{64}+y^{63}+\cdots+5676y+961)$
c_{12}	$(y^{20}-12y^{19}+\cdots+10y+1)$ $\cdot(y^{64}-91y^{63}+\cdots-7005093425444y+292649622841)$