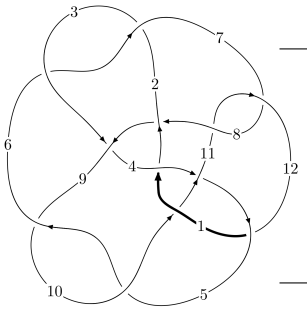
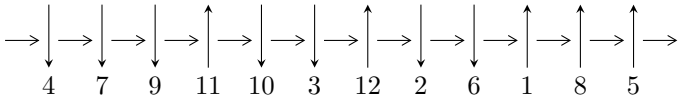
$12a_{1057}$ $(K12a_{1057})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 1.95047 \times 10^{1094} u^{167} - 5.59776 \times 10^{1093} u^{166} + \cdots + 2.59133 \times 10^{1097} b - 9.58013 \times 10^{1097}, \\ & - 5.16111 \times 10^{1098} u^{167} + 3.11285 \times 10^{1097} u^{166} + \cdots + 5.14353 \times 10^{1101} a + 2.81343 \times 10^{1103}, \\ & u^{168} - u^{167} + \cdots - 545381u + 39698 \rangle \\ I_2^u = \langle & 7.30617 \times 10^{64} u^{43} - 2.12038 \times 10^{65} u^{42} + \cdots + 1.06566 \times 10^{66} b - 1.02238 \times 10^{66}, \\ & 2.38557 \times 10^{66} u^{43} - 1.01455 \times 10^{67} u^{42} + \cdots + 2.02475 \times 10^{67} a - 1.52864 \times 10^{68}, \ u^{44} - 2u^{43} + \cdots + 87u + \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 212 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. $\boldsymbol{I_1^u = \langle 1.95 \times 10^{1094} u^{167} - 5.60 \times 10^{1093} u^{166} + \cdots + 2.59 \times 10^{1097} b - 9.58 \times 10^{1097},\ -5.16 \times 10^{1098} u^{167} + 3.11 \times 10^{1097} u^{166} + \cdots + 5.14 \times 10^{1101} a + 2.81 \times 10^{1103},\ u^{168} - u^{167} + \cdots - 545381u + 39698 \rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.00100342u^{167} - 0.0000605198u^{166} + \cdots + 584.974u - 54.6984 \\ -0.000752692u^{167} + 0.000216019u^{166} + \cdots - 90.6208u + 3.69699 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.000971291u^{167} - 0.0000747615u^{166} + \cdots - 442.583u + 25.6220 \\ -0.00114684u^{167} + 0.000993880u^{166} + \cdots - 397.386u + 36.3783 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.000250724u^{167} + 0.000155499u^{166} + \cdots + 494.354u - 51.0014 \\ -0.000752692u^{167} + 0.000216019u^{166} + \cdots - 90.6208u + 3.69699 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -0.00531893u^{167} + 0.00730716u^{166} + \cdots - 1189.66u + 68.5404 \\ 0.000743565u^{167} - 0.00101886u^{166} + \cdots - 33.7436u + 6.96915 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.00215895u^{167} + 0.000694507u^{166} + \cdots + 587.392u - 45.0724 \\ 0.000209614u^{167} + 0.00108263u^{166} + \cdots - 407.374u + 26.4468 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.00289672u^{167} - 0.000930766u^{166} + \cdots + 517.763u - 44.6072 \\ -0.000721998u^{167} - 0.000584795u^{166} + \cdots + 200.427u - 13.6036 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.00118509u^{167} + 0.000227451u^{166} + \cdots + 202.289u - 26.0549 \\ -0.000852012u^{167} - 0.000278598u^{166} + \cdots + 129.051u - 11.3055 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.000339869u^{167} - 0.000484650u^{166} + \cdots - 386.806u + 28.9363 \\ 0.000423902u^{167} - 0.0000378799u^{166} + \cdots - 9.01557u + 4.98085 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.00776499u^{167} - 0.0212134u^{166} + \cdots + 8536.45u - 617.062$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{168} - 13u^{167} + \cdots - 21712189323u + 1419536343$
c_2, c_6	$u^{168} - u^{167} + \cdots - 545381u + 39698$
c_3	$u^{168} - 2u^{167} + \cdots - 7408948459u + 395731121$
c_4	$u^{168} - 6u^{167} + \cdots + 457u + 19$
c_5, c_9	$u^{168} + 77u^{166} + \cdots - 46998156u + 3044193$
c_7, c_{11}	$u^{168} + 44u^{166} + \cdots - 10323u + 2217$
c_8	$u^{168} - 4u^{167} + \cdots - 7477336u + 3141661$
c_{10}	$u^{168} + 12u^{167} + \cdots + 63876u + 5329$
c_{12}	$u^{168} - 9u^{167} + \cdots + 2597039u + 180482$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{168} + 41y^{167} + \cdots + 9.35 \times 10^{19}y + 2.02 \times 10^{18}$
c_2, c_6	$y^{168} + 121y^{167} + \cdots + 51727293639y + 1575931204$
c_3	$y^{168} + 200y^{167} + \cdots + 1.07 \times 10^{18}y + 1.57 \times 10^{17}$
c_4	$y^{168} - 22y^{167} + \cdots - 12313y + 361$
c_5, c_9	$y^{168} + 154y^{167} + \cdots - 30381005547372y + 9267111021249$
c_7, c_{11}	$y^{168} + 88y^{167} + \cdots + 213632547y + 4915089$
c_8	$y^{168} + 46y^{167} + \cdots + 3241576894776324y + 9870033838921$
c_{10}	$y^{168} - 28y^{167} + \cdots - 789826932y + 28398241$
c_{12}	$y^{168} - 67y^{167} + \cdots - 2984683484193y + 32573752324$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.284091 + 0.940316I$ $a = 0.337258 + 0.002796I$ $b = 0.968174 - 0.100011I$	$-2.59253 - 4.98996I$	0
$u = 0.284091 - 0.940316I$ $a = 0.337258 - 0.002796I$ $b = 0.968174 + 0.100011I$	$-2.59253 + 4.98996I$	0
$u = -0.075135 + 1.021290I$ $a = -2.52222 + 0.42696I$ $b = -0.116441 + 0.433873I$	$4.07468 + 0.22739I$	0
$u = -0.075135 - 1.021290I$ $a = -2.52222 - 0.42696I$ $b = -0.116441 - 0.433873I$	$4.07468 - 0.22739I$	0
$u = 0.054287 + 1.029200I$ $a = 8.05437 - 3.33744I$ $b = -0.101327 + 1.023360I$	$4.84108 + 0.37208I$	0
$u = 0.054287 - 1.029200I$ $a = 8.05437 + 3.33744I$ $b = -0.101327 - 1.023360I$	$4.84108 - 0.37208I$	0
$u = 0.152995 + 0.954850I$ $a = -0.532906 + 0.070687I$ $b = 1.208750 + 0.414829I$	$2.42868 - 2.38369I$	0
$u = 0.152995 - 0.954850I$ $a = -0.532906 - 0.070687I$ $b = 1.208750 - 0.414829I$	$2.42868 + 2.38369I$	0
$u = 0.330430 + 0.888535I$ $a = -0.160363 + 0.542365I$ $b = 0.866964 - 0.576259I$	$-2.99366 + 1.12430I$	0
$u = 0.330430 - 0.888535I$ $a = -0.160363 - 0.542365I$ $b = 0.866964 + 0.576259I$	$-2.99366 - 1.12430I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.872420 + 0.347617I$ $a = -1.016720 + 0.628518I$ $b = -0.012132 - 1.184250I$	$1.56919 - 5.09213I$	0
$u = 0.872420 - 0.347617I$ $a = -1.016720 - 0.628518I$ $b = -0.012132 + 1.184250I$	$1.56919 + 5.09213I$	0
$u = 0.916579 + 0.155382I$ $a = 0.207841 + 0.760860I$ $b = -1.017910 + 0.165439I$	$-1.58389 + 9.27209I$	0
$u = 0.916579 - 0.155382I$ $a = 0.207841 - 0.760860I$ $b = -1.017910 - 0.165439I$	$-1.58389 - 9.27209I$	0
$u = -1.068940 + 0.074303I$ $a = 0.295966 + 0.461058I$ $b = 0.26471 - 1.41552I$	$6.14787 + 8.11153I$	0
$u = -1.068940 - 0.074303I$ $a = 0.295966 - 0.461058I$ $b = 0.26471 + 1.41552I$	$6.14787 - 8.11153I$	0
$u = -0.687326 + 0.620253I$ $a = -0.348519 - 0.778136I$ $b = -0.377798 + 0.175034I$	$-1.97033 + 4.36241I$	0
$u = -0.687326 - 0.620253I$ $a = -0.348519 + 0.778136I$ $b = -0.377798 - 0.175034I$	$-1.97033 - 4.36241I$	0
$u = -0.234753 + 1.079510I$ $a = -1.47923 + 0.07692I$ $b = 2.11071 + 0.12459I$	$2.55592 + 2.82580I$	0
$u = -0.234753 - 1.079510I$ $a = -1.47923 - 0.07692I$ $b = 2.11071 - 0.12459I$	$2.55592 - 2.82580I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.041621 + 1.122060I$ $a = 1.37919 - 3.51006I$ $b = 0.181163 + 1.243160I$	$5.42114 - 1.40537I$	0
$u = 0.041621 - 1.122060I$ $a = 1.37919 + 3.51006I$ $b = 0.181163 - 1.243160I$	$5.42114 + 1.40537I$	0
$u = -0.603325 + 0.615323I$ $a = 0.261334 + 0.297631I$ $b = 0.619144 - 0.184760I$	$-1.76726 + 0.42600I$	0
$u = -0.603325 - 0.615323I$ $a = 0.261334 - 0.297631I$ $b = 0.619144 + 0.184760I$	$-1.76726 - 0.42600I$	0
$u = -1.096960 + 0.307197I$ $a = 0.172374 + 0.007616I$ $b = -0.503733 - 0.553418I$	$-4.74008 + 1.00418I$	0
$u = -1.096960 - 0.307197I$ $a = 0.172374 - 0.007616I$ $b = -0.503733 + 0.553418I$	$-4.74008 - 1.00418I$	0
$u = 0.597290 + 0.617376I$ $a = -0.21314 + 1.83750I$ $b = -0.460376 - 0.816970I$	$-3.91577 - 4.73107I$	0
$u = 0.597290 - 0.617376I$ $a = -0.21314 - 1.83750I$ $b = -0.460376 + 0.816970I$	$-3.91577 + 4.73107I$	0
$u = -0.012233 + 1.146940I$ $a = 0.49221 - 2.24248I$ $b = -0.74527 + 1.38163I$	$3.70584 + 1.52818I$	0
$u = -0.012233 - 1.146940I$ $a = 0.49221 + 2.24248I$ $b = -0.74527 - 1.38163I$	$3.70584 - 1.52818I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.257184 + 1.119890I$ $a = -1.37631 + 1.42853I$ $b = -0.140027 - 1.371420I$	$9.31262 - 1.14023I$	0
$u = 0.257184 - 1.119890I$ $a = -1.37631 - 1.42853I$ $b = -0.140027 + 1.371420I$	$9.31262 + 1.14023I$	0
$u = 1.077880 + 0.414884I$ $a = 0.363476 - 0.810347I$ $b = 0.30692 + 1.52869I$	$4.92777 - 1.44448I$	0
$u = 1.077880 - 0.414884I$ $a = 0.363476 + 0.810347I$ $b = 0.30692 - 1.52869I$	$4.92777 + 1.44448I$	0
$u = 1.079680 + 0.423739I$ $a = 0.056329 - 0.685349I$ $b = -0.037536 + 1.133930I$	$0.64950 - 2.60034I$	0
$u = 1.079680 - 0.423739I$ $a = 0.056329 + 0.685349I$ $b = -0.037536 - 1.133930I$	$0.64950 + 2.60034I$	0
$u = 0.325289 + 1.116410I$ $a = 0.913354 + 0.326190I$ $b = -0.251026 + 0.405995I$	$3.59684 + 1.00091I$	0
$u = 0.325289 - 1.116410I$ $a = 0.913354 - 0.326190I$ $b = -0.251026 - 0.405995I$	$3.59684 - 1.00091I$	0
$u = -1.068720 + 0.459817I$ $a = 0.220794 + 0.142059I$ $b = -0.116356 - 1.193400I$	$-0.93471 - 3.70656I$	0
$u = -1.068720 - 0.459817I$ $a = 0.220794 - 0.142059I$ $b = -0.116356 + 1.193400I$	$-0.93471 + 3.70656I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.033393+0.832881I$ $a=\ \ 0.54437-3.66890I$ $b=-0.11135+3.31405I$	$2.98518-1.88452I$	0
$u=-0.033393-0.832881I$ $a=\ \ 0.54437+3.66890I$ $b=-0.11135-3.31405I$	$2.98518+1.88452I$	0
$u=\ \ 0.126950+1.163600I$ $a=\ \ 0.981919+0.242067I$ $b=-1.43108-0.48845I$	$3.50059+1.53756I$	0
$u=\ \ 0.126950-1.163600I$ $a=\ \ 0.981919-0.242067I$ $b=-1.43108+0.48845I$	$3.50059-1.53756I$	0
$u=\ \ 0.132565+1.165520I$ $a=\ \ 0.03915+2.53352I$ $b=\ \ 0.131501-1.357020I$	$3.23214-4.63266I$	0
$u=\ \ 0.132565-1.165520I$ $a=\ \ 0.03915-2.53352I$ $b=\ \ 0.131501+1.357020I$	$3.23214+4.63266I$	0
$u=\ \ 0.002666+1.178680I$ $a=\ \ 0.676809-1.175660I$ $b=-1.169270+0.646241I$	$3.61163+1.55804I$	0
$u=\ \ 0.002666-1.178680I$ $a=\ \ 0.676809+1.175660I$ $b=-1.169270-0.646241I$	$3.61163-1.55804I$	0
$u=-0.151285+1.177340I$ $a=\ \ 0.41329+2.07435I$ $b=\ \ 0.43226-1.75944I$	$9.76091+5.72419I$	0
$u=-0.151285-1.177340I$ $a=\ \ 0.41329-2.07435I$ $b=\ \ 0.43226+1.75944I$	$9.76091-5.72419I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.191460 + 0.012419I$ $a = 0.130565 - 0.489369I$ $b = -0.48860 + 1.38167I$	$4.17351 + 5.38540I$	0
$u = 1.191460 - 0.012419I$ $a = 0.130565 + 0.489369I$ $b = -0.48860 - 1.38167I$	$4.17351 - 5.38540I$	0
$u = 0.106663 + 1.188350I$ $a = 0.74450 + 3.33756I$ $b = -0.209570 - 1.299310I$	$5.36863 - 10.42050I$	0
$u = 0.106663 - 1.188350I$ $a = 0.74450 - 3.33756I$ $b = -0.209570 + 1.299310I$	$5.36863 + 10.42050I$	0
$u = 0.281264 + 1.164210I$ $a = -0.499617 - 0.363828I$ $b = -0.513387 + 0.105594I$	$4.64422 - 1.12038I$	0
$u = 0.281264 - 1.164210I$ $a = -0.499617 + 0.363828I$ $b = -0.513387 - 0.105594I$	$4.64422 + 1.12038I$	0
$u = -0.037426 + 1.206240I$ $a = 0.79761 - 1.93796I$ $b = 0.30922 + 1.42884I$	$6.72614 + 3.11920I$	0
$u = -0.037426 - 1.206240I$ $a = 0.79761 + 1.93796I$ $b = 0.30922 - 1.42884I$	$6.72614 - 3.11920I$	0
$u = 0.768231 + 0.179991I$ $a = -0.229004 + 1.107430I$ $b = -0.284457 - 0.213294I$	$-1.35961 + 3.34267I$	0
$u = 0.768231 - 0.179991I$ $a = -0.229004 - 1.107430I$ $b = -0.284457 + 0.213294I$	$-1.35961 - 3.34267I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.450237+1.129640I$ $a=\ \ 1.08159-0.92564I$ $b=-0.510383-0.205515I$	$1.72094+7.82381I$	0
$u=-0.450237-1.129640I$ $a=\ \ 1.08159+0.92564I$ $b=-0.510383+0.205515I$	$1.72094-7.82381I$	0
$u=-0.223436+1.196850I$ $a=\ \ 0.66162+1.75649I$ $b=\ \ 0.13681-1.56788I$	$9.43294-3.08893I$	0
$u=-0.223436-1.196850I$ $a=\ \ 0.66162-1.75649I$ $b=\ \ 0.13681+1.56788I$	$9.43294+3.08893I$	0
$u=-0.603518+1.059190I$ $a=\ \ 1.037450+0.799838I$ $b=\ \ 0.365907-1.270220I$	$1.06458+9.62248I$	0
$u=-0.603518-1.059190I$ $a=\ \ 1.037450-0.799838I$ $b=\ \ 0.365907+1.270220I$	$1.06458-9.62248I$	0
$u=-0.288687+1.184920I$ $a=\ \ 0.138652-0.314545I$ $b=-0.640046+0.202767I$	$1.91202+2.76204I$	0
$u=-0.288687-1.184920I$ $a=\ \ 0.138652+0.314545I$ $b=-0.640046-0.202767I$	$1.91202-2.76204I$	0
$u=-0.729160+0.251539I$ $a=\ \ 0.113384+0.359445I$ $b=-0.162744+1.309360I$	$5.98268+2.64378I$	0
$u=-0.729160-0.251539I$ $a=\ \ 0.113384-0.359445I$ $b=-0.162744-1.309360I$	$5.98268-2.64378I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.480899 + 0.602446I$ $a = 0.25722 + 1.91127I$ $b = -0.398759 - 0.332342I$	$-3.64248 + 1.82200I$	0
$u = 0.480899 - 0.602446I$ $a = 0.25722 - 1.91127I$ $b = -0.398759 + 0.332342I$	$-3.64248 - 1.82200I$	0
$u = -0.167326 + 1.223240I$ $a = 1.43020 - 0.48536I$ $b = -1.99388 + 0.26584I$	$3.08839 - 1.01266I$	0
$u = -0.167326 - 1.223240I$ $a = 1.43020 + 0.48536I$ $b = -1.99388 - 0.26584I$	$3.08839 + 1.01266I$	0
$u = 0.613271 + 0.457217I$ $a = 1.20656 - 0.91303I$ $b = 0.02728 + 1.44953I$	$4.18721 - 2.06146I$	0
$u = 0.613271 - 0.457217I$ $a = 1.20656 + 0.91303I$ $b = 0.02728 - 1.44953I$	$4.18721 + 2.06146I$	0
$u = -0.506691 + 1.148720I$ $a = 0.316184 + 1.041090I$ $b = 0.735259 - 0.880646I$	$-2.00361 + 4.47632I$	0
$u = -0.506691 - 1.148720I$ $a = 0.316184 - 1.041090I$ $b = 0.735259 + 0.880646I$	$-2.00361 - 4.47632I$	0
$u = 0.589422 + 1.110200I$ $a = 0.86112 - 1.60289I$ $b = 0.234834 + 1.376290I$	$3.20575 - 3.50616I$	0
$u = 0.589422 - 1.110200I$ $a = 0.86112 + 1.60289I$ $b = 0.234834 - 1.376290I$	$3.20575 + 3.50616I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.331843 + 1.229400I$ $a = 0.132358 + 0.910865I$ $b = -1.088970 - 0.554810I$	$4.20739 - 8.28834I$	0
$u = 0.331843 - 1.229400I$ $a = 0.132358 - 0.910865I$ $b = -1.088970 + 0.554810I$	$4.20739 + 8.28834I$	0
$u = -0.247895 + 1.286380I$ $a = 0.165331 + 0.102441I$ $b = 0.697266 + 0.124675I$	$3.34055 + 6.58969I$	0
$u = -0.247895 - 1.286380I$ $a = 0.165331 - 0.102441I$ $b = 0.697266 - 0.124675I$	$3.34055 - 6.58969I$	0
$u = 0.374340 + 1.259280I$ $a = -0.00127852 + 0.00998449I$ $b = 0.865450 + 0.053819I$	$2.13115 - 7.55128I$	0
$u = 0.374340 - 1.259280I$ $a = -0.00127852 - 0.00998449I$ $b = 0.865450 - 0.053819I$	$2.13115 + 7.55128I$	0
$u = 0.680355 + 0.026540I$ $a = 0.515047 + 0.436675I$ $b = 0.742057 + 0.409507I$	$0.44173 - 4.57830I$	0
$u = 0.680355 - 0.026540I$ $a = 0.515047 - 0.436675I$ $b = 0.742057 - 0.409507I$	$0.44173 + 4.57830I$	0
$u = 0.443186 + 1.246440I$ $a = -0.522997 - 0.802719I$ $b = 1.40031 + 0.55525I$	$1.8632 - 14.1424I$	0
$u = 0.443186 - 1.246440I$ $a = -0.522997 + 0.802719I$ $b = 1.40031 - 0.55525I$	$1.8632 + 14.1424I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.517897+0.405372I$ $a=\ \ 0.52244-1.72953I$ $b=-0.979303+0.352505I$	$0.576668+0.247597I$	0
$u=-0.517897-0.405372I$ $a=\ \ 0.52244+1.72953I$ $b=-0.979303-0.352505I$	$0.576668-0.247597I$	0
$u=-1.341690+0.123032I$ $a=-0.058656-0.685993I$ $b=-0.38668+1.41090I$	$3.4615+14.1615I$	0
$u=-1.341690-0.123032I$ $a=-0.058656+0.685993I$ $b=-0.38668-1.41090I$	$3.4615-14.1615I$	0
$u=\ \ 0.598970+0.235062I$ $a=\ \ 0.190700-0.931123I$ $b=\ \ 0.341182+0.958710I$	$1.09668-2.85370I$	0
$u=\ \ 0.598970-0.235062I$ $a=\ \ 0.190700+0.931123I$ $b=\ \ 0.341182-0.958710I$	$1.09668+2.85370I$	0
$u=-0.621178+0.158102I$ $a=\ \ 0.203826-0.770996I$ $b=\ \ 1.076030-0.176436I$	$-0.95765-3.74813I$	0
$u=-0.621178-0.158102I$ $a=\ \ 0.203826+0.770996I$ $b=\ \ 1.076030+0.176436I$	$-0.95765+3.74813I$	0
$u=\ \ 0.129231+1.356950I$ $a=-0.70488+1.47927I$ $b=-0.313586-1.205940I$	$8.61587-1.20870I$	0
$u=\ \ 0.129231-1.356950I$ $a=-0.70488-1.47927I$ $b=-0.313586+1.205940I$	$8.61587+1.20870I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.095784+1.395260I$ $a=-0.04280-1.96802I$ $b=-0.65687+1.67937I$	$8.33970+9.96362I$	0
$u=-0.095784-1.395260I$ $a=-0.04280+1.96802I$ $b=-0.65687-1.67937I$	$8.33970-9.96362I$	0
$u=-1.386040+0.198691I$ $a=0.015059-0.267132I$ $b=-0.167932+0.230915I$	$-4.28062-1.07992I$	0
$u=-1.386040-0.198691I$ $a=0.015059+0.267132I$ $b=-0.167932-0.230915I$	$-4.28062+1.07992I$	0
$u=-0.569930+1.284900I$ $a=0.51932+1.62601I$ $b=0.27646-1.58138I$	$9.74950+6.95318I$	0
$u=-0.569930-1.284900I$ $a=0.51932-1.62601I$ $b=0.27646+1.58138I$	$9.74950-6.95318I$	0
$u=-0.552834+0.200323I$ $a=0.579221+0.289335I$ $b=0.512170-0.217345I$	$-1.099970+0.414983I$	0
$u=-0.552834-0.200323I$ $a=0.579221-0.289335I$ $b=0.512170+0.217345I$	$-1.099970-0.414983I$	0
$u=-0.16046+1.40869I$ $a=-0.164190-0.591656I$ $b=-0.577878+0.295166I$	$4.45091+2.78437I$	0
$u=-0.16046-1.40869I$ $a=-0.164190+0.591656I$ $b=-0.577878-0.295166I$	$4.45091-2.78437I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.57555+1.30011I$ $a=-0.041306+0.244256I$ $b=\ \ 0.523954-0.235023I$	$-0.43683+7.47319I$	0
$u=-0.57555-1.30011I$ $a=-0.041306-0.244256I$ $b=\ \ 0.523954+0.235023I$	$-0.43683-7.47319I$	0
$u=\ \ 0.29191+1.40612I$ $a=-0.42638+1.97265I$ $b=-0.37314-1.39273I$	$6.39380-6.45305I$	0
$u=\ \ 0.29191-1.40612I$ $a=-0.42638-1.97265I$ $b=-0.37314+1.39273I$	$6.39380+6.45305I$	0
$u=\ \ 0.25363+1.41906I$ $a=-1.16802+2.07400I$ $b=-0.115233-1.395630I$	$10.11930-5.12306I$	0
$u=\ \ 0.25363-1.41906I$ $a=-1.16802-2.07400I$ $b=-0.115233+1.395630I$	$10.11930+5.12306I$	0
$u=\ \ 0.36080+1.40745I$ $a=-0.84063+2.05457I$ $b=-0.39279-1.59206I$	$10.69200-6.13457I$	0
$u=\ \ 0.36080-1.40745I$ $a=-0.84063-2.05457I$ $b=-0.39279+1.59206I$	$10.69200+6.13457I$	0
$u=-1.47271+0.01769I$ $a=-0.035865+0.574036I$ $b=-0.084693-1.250970I$	$1.83897-4.70582I$	0
$u=-1.47271-0.01769I$ $a=-0.035865-0.574036I$ $b=-0.084693+1.250970I$	$1.83897+4.70582I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.49801+1.38916I$ $a=-0.85800-1.77805I$ $b=-0.41303+1.54086I$	$10.7554+13.6795I$	0
$u=-0.49801-1.38916I$ $a=-0.85800+1.77805I$ $b=-0.41303-1.54086I$	$10.7554-13.6795I$	0
$u=0.42781+1.42892I$ $a=-0.96548+1.28629I$ $b=0.060111-1.277900I$	$9.18517-0.57243I$	0
$u=0.42781-1.42892I$ $a=-0.96548-1.28629I$ $b=0.060111+1.277900I$	$9.18517+0.57243I$	0
$u=0.54252+1.39052I$ $a=0.54647-1.88770I$ $b=0.59744+1.65791I$	$8.5901-11.4391I$	0
$u=0.54252-1.39052I$ $a=0.54647+1.88770I$ $b=0.59744-1.65791I$	$8.5901+11.4391I$	0
$u=0.21110+1.48020I$ $a=-0.93674+2.18756I$ $b=-0.21130-1.48891I$	$10.40420-5.39553I$	0
$u=0.21110-1.48020I$ $a=-0.93674-2.18756I$ $b=-0.21130+1.48891I$	$10.40420+5.39553I$	0
$u=0.16262+1.51096I$ $a=-0.869296-0.589013I$ $b=0.234659+0.148268I$	$4.20111+5.03409I$	0
$u=0.16262-1.51096I$ $a=-0.869296+0.589013I$ $b=0.234659-0.148268I$	$4.20111-5.03409I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.42210 + 1.46694I$ $a = 0.94240 - 1.73514I$ $b = 0.256824 + 1.324450I$	$7.30722 - 9.93458I$	0
$u = 0.42210 - 1.46694I$ $a = 0.94240 + 1.73514I$ $b = 0.256824 - 1.324450I$	$7.30722 + 9.93458I$	0
$u = -0.69887 + 1.37603I$ $a = 0.70926 + 1.40526I$ $b = -0.05740 - 1.46680I$	$9.77786 - 2.07439I$	0
$u = -0.69887 - 1.37603I$ $a = 0.70926 - 1.40526I$ $b = -0.05740 + 1.46680I$	$9.77786 + 2.07439I$	0
$u = 0.183001 + 0.402886I$ $a = 2.86925 - 1.41213I$ $b = 0.078538 + 1.379260I$	$4.03516 - 3.20518I$	$7.17483 + 8.32888I$
$u = 0.183001 - 0.402886I$ $a = 2.86925 + 1.41213I$ $b = 0.078538 - 1.379260I$	$4.03516 + 3.20518I$	$7.17483 - 8.32888I$
$u = 0.297605 + 0.312808I$ $a = 1.39651 + 1.45903I$ $b = -0.030816 + 1.089200I$	$3.38027 + 0.31961I$	$3.96208 - 0.64806I$
$u = 0.297605 - 0.312808I$ $a = 1.39651 - 1.45903I$ $b = -0.030816 - 1.089200I$	$3.38027 - 0.31961I$	$3.96208 + 0.64806I$
$u = -0.55706 + 1.47307I$ $a = 0.62471 + 1.82428I$ $b = 0.49042 - 1.59741I$	$8.5406 + 20.7012I$	0
$u = -0.55706 - 1.47307I$ $a = 0.62471 - 1.82428I$ $b = 0.49042 + 1.59741I$	$8.5406 - 20.7012I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.73365 + 1.39443I$ $a = 0.87480 - 1.35975I$ $b = -0.09161 + 1.50739I$	$7.86889 - 5.56007I$	0
$u = 0.73365 - 1.39443I$ $a = 0.87480 + 1.35975I$ $b = -0.09161 - 1.50739I$	$7.86889 + 5.56007I$	0
$u = 0.362251 + 0.209228I$ $a = 0.75641 + 1.46279I$ $b = 0.300795 - 0.976137I$	$0.48660 + 2.86183I$	$0.99374 - 1.39324I$
$u = 0.362251 - 0.209228I$ $a = 0.75641 - 1.46279I$ $b = 0.300795 + 0.976137I$	$0.48660 - 2.86183I$	$0.99374 + 1.39324I$
$u = -0.06910 + 1.58578I$ $a = -0.22943 - 1.41497I$ $b = -0.348326 + 1.217230I$	$7.01672 + 0.79042I$	0
$u = -0.06910 - 1.58578I$ $a = -0.22943 + 1.41497I$ $b = -0.348326 - 1.217230I$	$7.01672 - 0.79042I$	0
$u = -0.58739 + 1.50576I$ $a = 0.61771 + 1.46452I$ $b = 0.33840 - 1.38094I$	$6.81769 + 11.83260I$	0
$u = -0.58739 - 1.50576I$ $a = 0.61771 - 1.46452I$ $b = 0.33840 + 1.38094I$	$6.81769 - 11.83260I$	0
$u = -0.76677 + 1.44514I$ $a = -0.688111 - 1.048090I$ $b = -0.185327 + 1.271600I$	$8.26020 + 3.61957I$	0
$u = -0.76677 - 1.44514I$ $a = -0.688111 + 1.048090I$ $b = -0.185327 - 1.271600I$	$8.26020 - 3.61957I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.37286 + 1.59560I$ $a = -0.50261 + 1.78770I$ $b = -0.208003 - 1.332070I$	$6.59551 - 5.84285I$	0
$u = 0.37286 - 1.59560I$ $a = -0.50261 - 1.78770I$ $b = -0.208003 + 1.332070I$	$6.59551 + 5.84285I$	0
$u = 0.087126 + 0.317448I$ $a = 2.87800 - 0.19260I$ $b = 0.515714 - 1.300300I$	$2.65668 + 9.42332I$	$-0.11801 - 3.20119I$
$u = 0.087126 - 0.317448I$ $a = 2.87800 + 0.19260I$ $b = 0.515714 + 1.300300I$	$2.65668 - 9.42332I$	$-0.11801 + 3.20119I$
$u = 0.223205 + 0.233786I$ $a = 2.08303 + 0.18442I$ $b = -0.295321 + 0.192397I$	$1.45186 + 0.65462I$	$3.88380 + 0.63906I$
$u = 0.223205 - 0.233786I$ $a = 2.08303 - 0.18442I$ $b = -0.295321 - 0.192397I$	$1.45186 - 0.65462I$	$3.88380 - 0.63906I$
$u = -0.47616 + 1.63652I$ $a = -0.41253 - 1.39560I$ $b = -0.253757 + 1.305180I$	$7.61999 + 2.60706I$	0
$u = -0.47616 - 1.63652I$ $a = -0.41253 + 1.39560I$ $b = -0.253757 - 1.305180I$	$7.61999 - 2.60706I$	0
$u = 0.231140 + 0.173261I$ $a = -3.42515 + 1.03563I$ $b = 0.58196 - 1.49974I$	$2.24414 + 1.47624I$	$-0.113688 - 0.609715I$
$u = 0.231140 - 0.173261I$ $a = -3.42515 - 1.03563I$ $b = 0.58196 + 1.49974I$	$2.24414 - 1.47624I$	$-0.113688 + 0.609715I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.59013 + 1.62198I$ $a = 0.50099 - 1.75656I$ $b = 0.22172 + 1.42694I$	$5.03520 - 10.27320I$	0
$u = 0.59013 - 1.62198I$ $a = 0.50099 + 1.75656I$ $b = 0.22172 - 1.42694I$	$5.03520 + 10.27320I$	0
$u = -0.61815 + 1.69288I$ $a = -0.68006 - 1.34419I$ $b = 0.128668 + 1.333530I$	$8.28468 - 6.48730I$	0
$u = -0.61815 - 1.69288I$ $a = -0.68006 + 1.34419I$ $b = 0.128668 - 1.333530I$	$8.28468 + 6.48730I$	0
$u = -0.125753 + 0.131744I$ $a = -2.19844 - 6.86553I$ $b = -0.065484 + 0.506757I$	$-0.82164 - 4.49761I$	$-2.42543 - 3.96500I$
$u = -0.125753 - 0.131744I$ $a = -2.19844 + 6.86553I$ $b = -0.065484 - 0.506757I$	$-0.82164 + 4.49761I$	$-2.42543 + 3.96500I$
$u = 1.88325 + 0.16436I$ $a = 0.064667 - 0.966319I$ $b = -0.048797 + 1.310530I$	$-0.60442 + 1.76334I$	0
$u = 1.88325 - 0.16436I$ $a = 0.064667 + 0.966319I$ $b = -0.048797 - 1.310530I$	$-0.60442 - 1.76334I$	0

II. $I_2^u =$
$\langle \mathbf{7.31\times 10^{64}u^{43}-2.12\times 10^{65}u^{42}+\cdots+1.07\times 10^{66}b-1.02\times 10^{66},\ 2.39\times 10^{66}u^{43}-1.01\times 10^{67}u^{42}+\cdots+2.02\times 10^{67}a-1.53\times 10^{68},\ u^{44}-2u^{43}+\cdots+87u+19}\rangle$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} u \\ u^3+u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.117820u^{43}+0.501075u^{42}+\cdots+38.8916u+7.54974 \\ -0.0685600u^{43}+0.198973u^{42}+\cdots-1.70804u+0.959383 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.789926u^{43}+1.38126u^{42}+\cdots-28.6565u-3.30354 \\ 0.427411u^{43}-0.820802u^{42}+\cdots+5.35492u-1.03866 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.186380u^{43}+0.700048u^{42}+\cdots+37.1835u+8.50912 \\ -0.0685600u^{43}+0.198973u^{42}+\cdots-1.70804u+0.959383 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -2.49090u^{43}+2.78682u^{42}+\cdots-198.821u-33.4531 \\ -0.164574u^{43}+0.671154u^{42}+\cdots+27.1966u+6.88779 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 1.03165u^{43}-1.57862u^{42}+\cdots+49.0488u+6.89755 \\ 0.0656142u^{43}-0.285579u^{42}+\cdots-13.0198u-3.36797 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.966262u^{43}-1.39598u^{42}+\cdots+66.9266u+9.54862 \\ -0.0688953u^{43}+0.0360155u^{42}+\cdots-14.9051u-2.02629 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.0971778u^{43}+0.460792u^{42}+\cdots+34.3945u+7.17297 \\ -0.0745770u^{43}+0.220067u^{42}+\cdots-0.897866u+0.779412 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 0.0498597u^{43}-0.247537u^{42}+\cdots-5.09068u-0.761476 \\ -0.186719u^{43}+0.442196u^{42}+\cdots+1.12029u+0.959565 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -7.40842u^{43}+19.8691u^{42}+\cdots+312.884u+95.4890$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{44} - 6u^{43} + \cdots - 151u + 43$
c_2	$u^{44} + 2u^{43} + \cdots - 87u + 19$
c_3	$u^{44} + 3u^{43} + \cdots + 7u + 1$
c_4	$u^{44} + 7u^{43} + \cdots + 13u + 1$
c_5	$u^{44} + 3u^{43} + \cdots - 4u + 1$
c_6	$u^{44} - 2u^{43} + \cdots + 87u + 19$
c_7	$u^{44} - u^{43} + \cdots - u + 1$
c_8	$u^{44} - 5u^{43} + \cdots - 40u + 17$
c_9	$u^{44} - 3u^{43} + \cdots + 4u + 1$
c_{10}	$u^{44} + 3u^{43} + \cdots + 10u + 1$
c_{11}	$u^{44} + u^{43} + \cdots + u + 1$
c_{12}	$u^{44} - 4u^{43} + \cdots + 61u + 5$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{44} - 8y^{43} + \cdots + 22951y + 1849$
c_2, c_6	$y^{44} + 28y^{43} + \cdots + 3527y + 361$
c_3	$y^{44} + 139y^{43} + \cdots + 43y + 1$
c_4	$y^{44} - 15y^{43} + \cdots - 79y + 1$
c_5, c_9	$y^{44} + 45y^{43} + \cdots + 10y + 1$
c_7, c_{11}	$y^{44} + 35y^{43} + \cdots + 49y + 1$
c_8	$y^{44} + 21y^{43} + \cdots + 18358y + 289$
c_{10}	$y^{44} + 3y^{43} + \cdots - 22y + 1$
c_{12}	$y^{44} - 40y^{43} + \cdots - 291y + 25$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.062257 + 1.022790I$ $a = 7.76297 - 1.49932I$ $b = -0.095421 + 1.025200I$	$4.85810 + 0.38699I$	$151.552 - 63.012I$
$u = 0.062257 - 1.022790I$ $a = 7.76297 + 1.49932I$ $b = -0.095421 - 1.025200I$	$4.85810 - 0.38699I$	$151.552 + 63.012I$
$u = 0.123554 + 1.062890I$ $a = 2.59229 + 1.50600I$ $b = -2.89462 - 1.63014I$	$3.31548 + 1.69933I$	$-8.6752 - 42.0622I$
$u = 0.123554 - 1.062890I$ $a = 2.59229 - 1.50600I$ $b = -2.89462 + 1.63014I$	$3.31548 - 1.69933I$	$-8.6752 + 42.0622I$
$u = -0.122957 + 1.088400I$ $a = -0.913165 - 0.684792I$ $b = -0.595553 + 0.328871I$	$4.08935 + 0.67879I$	$4.01198 - 4.33976I$
$u = -0.122957 - 1.088400I$ $a = -0.913165 + 0.684792I$ $b = -0.595553 - 0.328871I$	$4.08935 - 0.67879I$	$4.01198 + 4.33976I$
$u = -0.362955 + 0.785432I$ $a = 0.118564 - 0.326616I$ $b = 0.478209 - 1.142540I$	$2.98404 + 10.41140I$	$2.51476 - 10.30800I$
$u = -0.362955 - 0.785432I$ $a = 0.118564 + 0.326616I$ $b = 0.478209 + 1.142540I$	$2.98404 - 10.41140I$	$2.51476 + 10.30800I$
$u = 0.041342 + 0.859482I$ $a = -0.85197 - 2.91413I$ $b = 1.36998 + 2.86415I$	$2.96927 - 2.00438I$	$28.1946 + 32.3001I$
$u = 0.041342 - 0.859482I$ $a = -0.85197 + 2.91413I$ $b = 1.36998 - 2.86415I$	$2.96927 + 2.00438I$	$28.1946 - 32.3001I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.550330 + 0.540222I$ $a = 1.186070 - 0.692964I$ $b = 0.288685 + 1.355860I$	$3.61360 - 2.37775I$	$1.23646 + 1.29587I$
$u = 0.550330 - 0.540222I$ $a = 1.186070 + 0.692964I$ $b = 0.288685 - 1.355860I$	$3.61360 + 2.37775I$	$1.23646 - 1.29587I$
$u = 1.225170 + 0.096810I$ $a = -0.310887 + 0.459935I$ $b = -0.048985 - 1.187770I$	$1.15065 - 4.01587I$	0
$u = 1.225170 - 0.096810I$ $a = -0.310887 - 0.459935I$ $b = -0.048985 + 1.187770I$	$1.15065 + 4.01587I$	0
$u = -0.732496 + 0.193842I$ $a = -0.552094 + 0.833461I$ $b = 0.038995 - 0.922684I$	$0.07951 + 3.68338I$	$-2.20239 - 9.50222I$
$u = -0.732496 - 0.193842I$ $a = -0.552094 - 0.833461I$ $b = 0.038995 + 0.922684I$	$0.07951 - 3.68338I$	$-2.20239 + 9.50222I$
$u = -0.378133 + 1.207360I$ $a = -0.43566 - 1.83560I$ $b = -0.36100 + 1.67391I$	$9.20157 + 6.41792I$	0
$u = -0.378133 - 1.207360I$ $a = -0.43566 + 1.83560I$ $b = -0.36100 - 1.67391I$	$9.20157 - 6.41792I$	0
$u = -0.476430 + 1.243010I$ $a = 0.566331 - 0.193856I$ $b = 0.123551 - 0.107406I$	$0.01967 + 6.80348I$	0
$u = -0.476430 - 1.243010I$ $a = 0.566331 + 0.193856I$ $b = 0.123551 + 0.107406I$	$0.01967 - 6.80348I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.436608+1.260690I$ $a=-0.68309-1.63185I$ $b=-0.02812+1.52579I$	$9.12441-2.42126I$	0
$u=-0.436608-1.260690I$ $a=-0.68309+1.63185I$ $b=-0.02812-1.52579I$	$9.12441+2.42126I$	0
$u=-0.460224+0.366720I$ $a=-0.84409-1.74080I$ $b=\ \ 0.350996+0.341595I$	$-3.53637-2.72590I$	$-5.39396+5.86209I$
$u=-0.460224-0.366720I$ $a=-0.84409+1.74080I$ $b=\ \ 0.350996-0.341595I$	$-3.53637+2.72590I$	$-5.39396-5.86209I$
$u=-0.03110+1.44675I$ $a=-0.473242-0.498624I$ $b=-0.195442+0.138237I$	$3.77268+3.65021I$	0
$u=-0.03110-1.44675I$ $a=-0.473242+0.498624I$ $b=-0.195442-0.138237I$	$3.77268-3.65021I$	0
$u=-1.43889+0.16365I$ $a=-0.097960+0.159270I$ $b=\ \ 0.085173-0.369615I$	$-4.12775-1.11647I$	0
$u=-1.43889-0.16365I$ $a=-0.097960-0.159270I$ $b=\ \ 0.085173+0.369615I$	$-4.12775+1.11647I$	0
$u=\ \ 0.322780+0.366854I$ $a=-2.00245+1.66700I$ $b=-0.077113-0.534685I$	$-0.76743-4.87078I$	$0.5109+16.3205I$
$u=\ \ 0.322780-0.366854I$ $a=-2.00245-1.66700I$ $b=-0.077113+0.534685I$	$-0.76743+4.87078I$	$0.5109-16.3205I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.21967 + 1.49571I$ $a = -0.89596 + 2.18521I$ $b = -0.22043 - 1.51180I$	$10.28310 - 5.30357I$	0
$u = 0.21967 - 1.49571I$ $a = -0.89596 - 2.18521I$ $b = -0.22043 + 1.51180I$	$10.28310 + 5.30357I$	0
$u = 0.06663 + 1.51525I$ $a = 0.03503 + 2.12416I$ $b = -0.30523 - 1.39957I$	$6.56810 - 8.25412I$	0
$u = 0.06663 - 1.51525I$ $a = 0.03503 - 2.12416I$ $b = -0.30523 + 1.39957I$	$6.56810 + 8.25412I$	0
$u = 0.17055 + 1.54830I$ $a = -0.387571 + 1.355670I$ $b = -0.308558 - 1.163430I$	$7.03556 - 1.34736I$	0
$u = 0.17055 - 1.54830I$ $a = -0.387571 - 1.355670I$ $b = -0.308558 + 1.163430I$	$7.03556 + 1.34736I$	0
$u = 0.49211 + 1.48409I$ $a = 0.71102 - 1.66601I$ $b = 0.318186 + 1.363780I$	$6.54924 - 10.01520I$	0
$u = 0.49211 - 1.48409I$ $a = 0.71102 + 1.66601I$ $b = 0.318186 - 1.363780I$	$6.54924 + 10.01520I$	0
$u = 0.68352 + 1.42779I$ $a = -0.758302 + 1.113230I$ $b = -0.188244 - 1.277560I$	$8.19041 - 3.52768I$	0
$u = 0.68352 - 1.42779I$ $a = -0.758302 - 1.113230I$ $b = -0.188244 + 1.277560I$	$8.19041 + 3.52768I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.239050+0.226266I$		
$a=-0.22008+2.71479I$	$1.15080+2.00421I$	$-2.97464-2.06552I$
$b=\ \ 0.719876-0.883281I$		
$u=-0.239050-0.226266I$		
$a=-0.22008-2.71479I$	$1.15080-2.00421I$	$-2.97464+2.06552I$
$b=\ \ 0.719876+0.883281I$		
$u=\ \ 1.72093+0.08645I$		
$a=-0.098388+0.994708I$	$-0.85700+1.62303I$	0
$b=\ \ 0.045066-1.286260I$		
$u=\ \ 1.72093-0.08645I$		
$a=-0.098388-0.994708I$	$-0.85700-1.62303I$	0
$b=\ \ 0.045066+1.286260I$		

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{44}-6u^{43}+\cdots-151u+43)$ $\cdot(u^{168}-13u^{167}+\cdots-21712189323u+1419536343)$
c_2	$(u^{44}+2u^{43}+\cdots-87u+19)(u^{168}-u^{167}+\cdots-545381u+39698)$
c_3	$(u^{44}+3u^{43}+\cdots+7u+1)$ $\cdot(u^{168}-2u^{167}+\cdots-7408948459u+395731121)$
c_4	$(u^{44}+7u^{43}+\cdots+13u+1)(u^{168}-6u^{167}+\cdots+457u+19)$
c_5	$(u^{44}+3u^{43}+\cdots-4u+1)$ $\cdot(u^{168}+77u^{166}+\cdots-46998156u+3044193)$
c_6	$(u^{44}-2u^{43}+\cdots+87u+19)(u^{168}-u^{167}+\cdots-545381u+39698)$
c_7	$(u^{44}-u^{43}+\cdots-u+1)(u^{168}+44u^{166}+\cdots-10323u+2217)$
c_8	$(u^{44}-5u^{43}+\cdots-40u+17)$ $\cdot(u^{168}-4u^{167}+\cdots-7477336u+3141661)$
c_9	$(u^{44}-3u^{43}+\cdots+4u+1)$ $\cdot(u^{168}+77u^{166}+\cdots-46998156u+3044193)$
c_{10}	$(u^{44}+3u^{43}+\cdots+10u+1)(u^{168}+12u^{167}+\cdots+63876u+5329)$
c_{11}	$(u^{44}+u^{43}+\cdots+u+1)(u^{168}+44u^{166}+\cdots-10323u+2217)$
c_{12}	$(u^{44}-4u^{43}+\cdots+61u+5)(u^{168}-9u^{167}+\cdots+2597039u+180482)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{44} - 8y^{43} + \cdots + 22951y + 1849)$ $\cdot (y^{168} + 41y^{167} + \cdots + 9.35 \times 10^{19}y + 2.02 \times 10^{18})$
c_2, c_6	$(y^{44} + 28y^{43} + \cdots + 3527y + 361)$ $\cdot (y^{168} + 121y^{167} + \cdots + 51727293639y + 1575931204)$
c_3	$(y^{44} + 139y^{43} + \cdots + 43y + 1)$ $\cdot (y^{168} + 200y^{167} + \cdots + 1.07 \times 10^{18}y + 1.57 \times 10^{17})$
c_4	$(y^{44} - 15y^{43} + \cdots - 79y + 1)(y^{168} - 22y^{167} + \cdots - 12313y + 361)$
c_5, c_9	$(y^{44} + 45y^{43} + \cdots + 10y + 1)$ $\cdot (y^{168} + 154y^{167} + \cdots - 30381005547372y + 9267111021249)$
c_7, c_{11}	$(y^{44} + 35y^{43} + \cdots + 49y + 1)$ $\cdot (y^{168} + 88y^{167} + \cdots + 213632547y + 4915089)$
c_8	$(y^{44} + 21y^{43} + \cdots + 18358y + 289)$ $\cdot (y^{168} + 46y^{167} + \cdots + 3241576894776324y + 9870033838921)$
c_{10}	$(y^{44} + 3y^{43} + \cdots - 22y + 1)$ $\cdot (y^{168} - 28y^{167} + \cdots - 789826932y + 28398241)$
c_{12}	$(y^{44} - 40y^{43} + \cdots - 291y + 25)$ $\cdot (y^{168} - 67y^{167} + \cdots - 2984683484193y + 32573752324)$