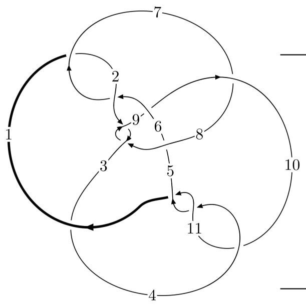
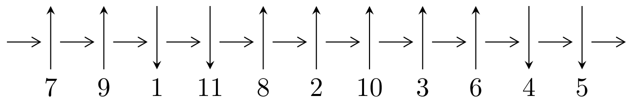
$11a_{317}$ ($K11a_{317}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$
\begin{aligned}
I_1^u &= \langle b-u,\ 9521222u^{24}+7310497u^{23}+\cdots+51467938a+84913603,\ u^{25}+9u^{23}+\cdots+2u-1\rangle\\
I_2^u &= \langle -3.79702\times10^{56}u^{47}-2.02674\times10^{55}u^{46}+\cdots+3.40179\times10^{58}b+1.47690\times10^{59},\\
&\quad -2.59043\times10^{36}u^{47}-5.89061\times10^{36}u^{46}+\cdots+8.97537\times10^{37}a-1.46834\times10^{39},\\
&\quad u^{48}+u^{47}+\cdots-114u+76\rangle\\
I_3^u &= \langle b+u,\ -u^8-5u^6-u^5-10u^4-3u^3-9u^2+a-3u-3,\\
&\quad u^{11}+6u^9+u^8+15u^7+4u^6+19u^5+6u^4+12u^3+3u^2+3u+1\rangle
\end{aligned}
$$

* 3 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. $I^u_1 = \langle b - u,\ 9.52 \times 10^6 u^{24} + 7.31 \times 10^6 u^{23} + \cdots + 5.15 \times 10^7 a + 8.49 \times 10^7,\ u^{25} + 9u^{23} + \cdots + 2u - 1\rangle$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -0.184993u^{24} - 0.142040u^{23} + \cdots + 0.533191u - 1.64983 \\ u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -0.184993u^{24} - 0.142040u^{23} + \cdots + 1.53319u - 1.64983 \\ u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 0.249484u^{24} + 0.573176u^{23} + \cdots - 1.83450u + 1.36074 \\ -0.208863u^{24} - 0.229234u^{23} + \cdots + 1.09909u - 0.142040 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -0.142040u^{24} - 0.208863u^{23} + \cdots - 1.27985u + 0.815007 \\ u^2 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -0.404984u^{24} - 0.142520u^{23} + \cdots - 0.371512u + 1.03005 \\ 0.127693u^{24} - 0.0749250u^{23} + \cdots - 0.532638u + 0.151702 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u \\ u^3 + u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -0.127833u^{24} - 0.0404991u^{23} + \cdots + 0.184500u - 1.27856 \\ 0.0196164u^{24} + 0.173697u^{23} + \cdots + 1.49461u - 0.472814 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -0.127434u^{24} + 0.297945u^{23} + \cdots - 1.85707u + 1.03254 \\ -0.293850u^{24} - 0.0592649u^{23} + \cdots + 1.55630u - 0.291252 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -0.127434u^{24} + 0.297945u^{23} + \cdots - 1.85707u + 1.03254 \\ -0.293850u^{24} - 0.0592649u^{23} + \cdots + 1.55630u - 0.291252 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= \frac{82053183}{25733969}u^{24} + \frac{57865173}{25733969}u^{23} + \cdots - \frac{4551724}{25733969}u + \frac{217825726}{25733969}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_6 c_8	$u^{25} + 9u^{23} + \cdots + 2u - 1$
c_3	$u^{25} - 18u^{24} + \cdots + 1946u - 188$
c_4, c_{10}, c_{11}	$u^{25} + 6u^{24} + \cdots + 14u - 4$
c_5, c_7	$u^{25} - u^{24} + \cdots - 3u - 1$
c_9	$u^{25} - 23u^{24} + \cdots + 49152u - 4096$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_6 c_8	$y^{25} + 18y^{24} + \cdots + 4y - 1$
c_3	$y^{25} + 2y^{24} + \cdots + 360428y - 35344$
c_4, c_{10}, c_{11}	$y^{25} - 22y^{24} + \cdots + 140y - 16$
c_5, c_7	$y^{25} - 5y^{24} + \cdots + 19y - 1$
c_9	$y^{25} - y^{24} + \cdots + 25165824y - 16777216$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.062688 + 1.054190I$ $a = -0.22875 + 2.02308I$ $b = -0.062688 + 1.054190I$	$-1.10259 - 2.56061I$	$2.13530 + 4.85725I$
$u = -0.062688 - 1.054190I$ $a = -0.22875 - 2.02308I$ $b = -0.062688 - 1.054190I$	$-1.10259 + 2.56061I$	$2.13530 - 4.85725I$
$u = -0.431005 + 1.014420I$ $a = 1.57469 - 0.29419I$ $b = -0.431005 + 1.014420I$	$-3.98322 - 6.30520I$	$2.04460 + 8.85471I$
$u = -0.431005 - 1.014420I$ $a = 1.57469 + 0.29419I$ $b = -0.431005 - 1.014420I$	$-3.98322 + 6.30520I$	$2.04460 - 8.85471I$
$u = 0.111664 + 1.150710I$ $a = 0.55005 + 1.77135I$ $b = 0.111664 + 1.150710I$	$-7.45610 + 6.63321I$	$-3.37442 - 6.60504I$
$u = 0.111664 - 1.150710I$ $a = 0.55005 - 1.77135I$ $b = 0.111664 - 1.150710I$	$-7.45610 - 6.63321I$	$-3.37442 + 6.60504I$
$u = 0.817149 + 0.195179I$ $a = -0.818471 + 0.839836I$ $b = 0.817149 + 0.195179I$	$-1.75933 - 5.22873I$	$2.70405 + 4.29469I$
$u = 0.817149 - 0.195179I$ $a = -0.818471 - 0.839836I$ $b = 0.817149 - 0.195179I$	$-1.75933 + 5.22873I$	$2.70405 - 4.29469I$
$u = 0.329284 + 0.707437I$ $a = -1.12449 - 1.00862I$ $b = 0.329284 + 0.707437I$	$0.24887 + 1.85876I$	$5.21169 - 1.18731I$
$u = 0.329284 - 0.707437I$ $a = -1.12449 + 1.00862I$ $b = 0.329284 - 0.707437I$	$0.24887 - 1.85876I$	$5.21169 + 1.18731I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.682331 + 0.261986I$ $a = 0.916549 + 0.989308I$ $b = -0.682331 + 0.261986I$	$2.97560 + 1.99862I$	$9.19617 - 1.79116I$
$u = -0.682331 - 0.261986I$ $a = 0.916549 - 0.989308I$ $b = -0.682331 - 0.261986I$	$2.97560 - 1.99862I$	$9.19617 + 1.79116I$
$u = -0.650446 + 0.309358I$ $a = 0.859033 - 0.557233I$ $b = -0.650446 + 0.309358I$	$-2.96955 + 0.98970I$	$0.58497 + 1.31216I$
$u = -0.650446 - 0.309358I$ $a = 0.859033 + 0.557233I$ $b = -0.650446 - 0.309358I$	$-2.96955 - 0.98970I$	$0.58497 - 1.31216I$
$u = 0.506874 + 0.472329I$ $a = -0.77448 + 1.43912I$ $b = 0.506874 + 0.472329I$	$0.027101 + 0.899324I$	$2.44779 - 5.98780I$
$u = 0.506874 - 0.472329I$ $a = -0.77448 - 1.43912I$ $b = 0.506874 - 0.472329I$	$0.027101 - 0.899324I$	$2.44779 + 5.98780I$
$u = 0.343162 + 1.368570I$ $a = -1.274410 + 0.462559I$ $b = 0.343162 + 1.368570I$	$-13.7635 + 5.7019I$	$-6.58533 - 4.59320I$
$u = 0.343162 - 1.368570I$ $a = -1.274410 - 0.462559I$ $b = 0.343162 - 1.368570I$	$-13.7635 - 5.7019I$	$-6.58533 + 4.59320I$
$u = -0.49075 + 1.33946I$ $a = 1.212400 + 0.228564I$ $b = -0.49075 + 1.33946I$	$-5.95198 - 7.41816I$	$-1.58248 + 3.87242I$
$u = -0.49075 - 1.33946I$ $a = 1.212400 - 0.228564I$ $b = -0.49075 - 1.33946I$	$-5.95198 + 7.41816I$	$-1.58248 - 3.87242I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.54170 + 1.40648I$ $a = -1.106250 + 0.225454I$ $b = 0.54170 + 1.40648I$	$-4.43838 + 12.03070I$	$0.63983 - 8.03648I$
$u = 0.54170 - 1.40648I$ $a = -1.106250 - 0.225454I$ $b = 0.54170 - 1.40648I$	$-4.43838 - 12.03070I$	$0.63983 + 8.03648I$
$u = -0.54820 + 1.46070I$ $a = 1.052770 + 0.249978I$ $b = -0.54820 + 1.46070I$	$-10.0254 - 16.0606I$	$-3.24174 + 8.45261I$
$u = -0.54820 - 1.46070I$ $a = 1.052770 - 0.249978I$ $b = -0.54820 - 1.46070I$	$-10.0254 + 16.0606I$	$-3.24174 - 8.45261I$
$u = 0.431188$ $a = -1.67732$ $b = 0.431188$	0.990720	10.6390

II. $\boldsymbol{I_2^u = \langle -3.80\times 10^{56}u^{47} - 2.03\times 10^{55}u^{46} + \cdots + 3.40\times 10^{58}b + 1.48\times 10^{59},\ -2.59\times 10^{36}u^{47} - 5.89\times 10^{36}u^{46} + \cdots + 8.98\times 10^{37}a - 1.47\times 10^{39},\ u^{48} + u^{47} + \cdots - 114u + 76\rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 0.0288615u^{47} + 0.0656308u^{46} + \cdots - 20.8449u + 16.3597 \\ 0.0111618u^{47} + 0.000595787u^{46} + \cdots + 9.23632u - 4.34154 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 0.0400233u^{47} + 0.0662266u^{46} + \cdots - 11.6086u + 12.0181 \\ 0.0111618u^{47} + 0.000595787u^{46} + \cdots + 9.23632u - 4.34154 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 0.0420194u^{47} + 0.0787887u^{46} + \cdots - 0.594941u + 14.8597 \\ 0.111068u^{47} + 0.0434318u^{46} + \cdots + 17.5888u - 7.60663 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 0.0168138u^{47} + 0.0776572u^{46} + \cdots + 24.0640u + 0.627739 \\ -0.0832734u^{47} - 0.133498u^{46} + \cdots - 8.45658u - 5.55110 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -0.145940u^{47} + 0.0918329u^{46} + \cdots - 59.0154u + 24.9472 \\ -0.101135u^{47} + 0.0935008u^{46} + \cdots - 8.22727u + 14.4058 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u \\ u^3 + u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 0.0201071u^{47} + 0.104301u^{46} + \cdots - 26.0937u + 18.7558 \\ 0.00804912u^{47} + 0.0333014u^{46} + \cdots + 8.41343u - 3.13339 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0.106068u^{47} + 0.361549u^{46} + \cdots + 20.9043u + 2.41440 \\ -0.0231108u^{47} + 0.124603u^{46} + \cdots - 30.6445u + 6.90238 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 0.106068u^{47} + 0.361549u^{46} + \cdots + 20.9043u + 2.41440 \\ -0.0231108u^{47} + 0.124603u^{46} + \cdots - 30.6445u + 6.90238 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.299258u^{47} - 0.246468u^{46} + \cdots + 7.59368u - 10.2839$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_6 c_8	$u^{48} + u^{47} + \cdots - 114u + 76$
c_3	$(u^{12} + 3u^{11} + \cdots + 4u + 1)^4$
c_4, c_{10}, c_{11}	$(u^{12} - u^{11} - 5u^{10} + 4u^9 + 9u^8 - 4u^7 - 6u^6 - 2u^5 + 3u^3 + u^2 + 1)^4$
c_5, c_7	$u^{48} + 13u^{47} + \cdots + 54u + 4$
c_9	$(u^2 + u + 1)^{24}$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_6 c_8	$y^{48} + 39y^{47} + \cdots + 220932y + 5776$
c_3	$(y^{12} + y^{11} + \cdots - 2y + 1)^4$
c_4, c_{10}, c_{11}	$(y^{12} - 11y^{11} + \cdots + 2y + 1)^4$
c_5, c_7	$y^{48} + 11y^{47} + \cdots + 356y + 16$
c_9	$(y^2 + y + 1)^{24}$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.119725 + 0.978589I$ $a = 0.933512 - 0.396730I$ $b = -0.735953 + 0.216627I$	$-1.81971 + 1.93627I$	$-0.00912 - 4.22614I$
$u = 0.119725 - 0.978589I$ $a = 0.933512 + 0.396730I$ $b = -0.735953 - 0.216627I$	$-1.81971 - 1.93627I$	$-0.00912 + 4.22614I$
$u = -0.975387 + 0.053637I$ $a = -0.462394 - 0.913306I$ $b = 0.248414 + 1.077640I$	$-1.81971 + 2.12349I$	$-0.00912 - 2.70206I$
$u = -0.975387 - 0.053637I$ $a = -0.462394 + 0.913306I$ $b = 0.248414 - 1.077640I$	$-1.81971 - 2.12349I$	$-0.00912 + 2.70206I$
$u = 0.248414 + 1.077640I$ $a = 0.864641 - 0.264663I$ $b = -0.975387 + 0.053637I$	$-1.81971 + 2.12349I$	$0. - 2.70206I$
$u = 0.248414 - 1.077640I$ $a = 0.864641 + 0.264663I$ $b = -0.975387 - 0.053637I$	$-1.81971 - 2.12349I$	$0. + 2.70206I$
$u = 0.423066 + 0.782946I$ $a = -0.589046 - 0.956905I$ $b = 0.087660 + 0.519316I$	$0.20418 + 1.85492I$	$2.80561 - 0.70730I$
$u = 0.423066 - 0.782946I$ $a = -0.589046 + 0.956905I$ $b = 0.087660 - 0.519316I$	$0.20418 - 1.85492I$	$2.80561 + 0.70730I$
$u = 0.839580 + 0.740780I$ $a = 0.846588 + 0.284535I$ $b = -0.200259 - 1.354980I$	$-8.04990 + 1.93627I$	$-3.99088 - 4.22614I$
$u = 0.839580 - 0.740780I$ $a = 0.846588 - 0.284535I$ $b = -0.200259 + 1.354980I$	$-8.04990 - 1.93627I$	$-3.99088 + 4.22614I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.103555+1.115340I$ $a=-0.811099-0.372987I$ $b=\ \ 0.42519-1.56466I$	$-4.93480-0.82777I$	$-2.00000-2.17330I$
$u=-0.103555-1.115340I$ $a=-0.811099+0.372987I$ $b=\ \ 0.42519+1.56466I$	$-4.93480+0.82777I$	$-2.00000+2.17330I$
$u=-0.021432+1.150630I$ $a=\ \ 0.744302-0.448409I$ $b=-0.49671-1.71193I$	$-10.07380-1.85492I$	$-6.80561+0.70730I$
$u=-0.021432-1.150630I$ $a=\ \ 0.744302+0.448409I$ $b=-0.49671+1.71193I$	$-10.07380+1.85492I$	$-6.80561-0.70730I$
$u=-0.531251+1.069240I$ $a=\ \ 0.463250-0.697786I$ $b=\ \ 0.089046+0.280790I$	$-4.93480-5.55830I$	$-2.00000+1.67128I$
$u=-0.531251-1.069240I$ $a=\ \ 0.463250+0.697786I$ $b=\ \ 0.089046-0.280790I$	$-4.93480+5.55830I$	$-2.00000-1.67128I$
$u=-0.358210+1.155170I$ $a=-0.806376-0.182786I$ $b=\ \ 1.230640-0.061737I$	$0.20418-5.91469I$	$3.00000+7.63550I$
$u=-0.358210-1.155170I$ $a=-0.806376+0.182786I$ $b=\ \ 1.230640+0.061737I$	$0.20418+5.91469I$	$3.00000-7.63550I$
$u=\ \ 1.230640+0.061737I$ $a=\ \ 0.440487+0.681622I$ $b=-0.358210-1.155170I$	$0.20418+5.91469I$	$3.00000-7.63550I$
$u=\ \ 1.230640-0.061737I$ $a=\ \ 0.440487-0.681622I$ $b=-0.358210+1.155170I$	$0.20418-5.91469I$	$3.00000+7.63550I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.735953+0.216627I$ $a=-0.306466-1.266950I$ $b=\ \ 0.119725+0.978589I$	$-1.81971+1.93627I$	$-0.00912-4.22614I$
$u=-0.735953-0.216627I$ $a=-0.306466+1.266950I$ $b=\ \ 0.119725-0.978589I$	$-1.81971-1.93627I$	$-0.00912+4.22614I$
$u=\ \ 0.393376+1.207210I$ $a=\ \ 0.770526-0.163098I$ $b=-1.341440-0.149230I$	$-4.93480+9.61806I$	$0.-8.59949I$
$u=\ \ 0.393376-1.207210I$ $a=\ \ 0.770526+0.163098I$ $b=-1.341440+0.149230I$	$-4.93480-9.61806I$	$0.+8.59949I$
$u=\ \ 0.139190+1.313850I$ $a=\ \ 0.691702-0.307281I$ $b=-0.68913-1.36774I$	$-4.93480+3.23200I$	0
$u=\ \ 0.139190-1.313850I$ $a=\ \ 0.691702+0.307281I$ $b=-0.68913+1.36774I$	$-4.93480-3.23200I$	0
$u=-0.068128+1.345270I$ $a=-0.660883-0.338204I$ $b=\ \ 0.81330-1.51334I$	$-10.07380-5.91469I$	0
$u=-0.068128-1.345270I$ $a=-0.660883+0.338204I$ $b=\ \ 0.81330+1.51334I$	$-10.07380+5.91469I$	0
$u=\ \ 0.280065+0.589338I$ $a=\ \ 1.52767-0.12243I$ $b=-0.06781-1.45011I$	$-8.04990+2.12349I$	$-3.99088-2.70206I$
$u=\ \ 0.280065-0.589338I$ $a=\ \ 1.52767+0.12243I$ $b=-0.06781+1.45011I$	$-8.04990-2.12349I$	$-3.99088+2.70206I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.341440 + 0.149230I$ $a = -0.439121 + 0.596745I$ $b = 0.393376 - 1.207210I$	$-4.93480 - 9.61806I$	0
$u = -1.341440 - 0.149230I$ $a = -0.439121 - 0.596745I$ $b = 0.393376 + 1.207210I$	$-4.93480 + 9.61806I$	0
$u = -0.200259 + 1.354980I$ $a = -0.678850 - 0.268678I$ $b = 0.839580 - 0.740780I$	$-8.04990 - 1.93627I$	0
$u = -0.200259 - 1.354980I$ $a = -0.678850 + 0.268678I$ $b = 0.839580 + 0.740780I$	$-8.04990 + 1.93627I$	0
$u = -0.06781 + 1.45011I$ $a = -0.612000 - 0.316184I$ $b = 0.280065 - 0.589338I$	$-8.04990 - 2.12349I$	0
$u = -0.06781 - 1.45011I$ $a = -0.612000 + 0.316184I$ $b = 0.280065 + 0.589338I$	$-8.04990 + 2.12349I$	0
$u = 0.087660 + 0.519316I$ $a = -1.46341 - 1.20983I$ $b = 0.423066 + 0.782946I$	$0.20418 + 1.85492I$	$2.80561 - 0.70730I$
$u = 0.087660 - 0.519316I$ $a = -1.46341 + 1.20983I$ $b = 0.423066 - 0.782946I$	$0.20418 - 1.85492I$	$2.80561 + 0.70730I$
$u = -0.68913 + 1.36774I$ $a = -0.651882 - 0.037119I$ $b = 0.139190 - 1.313850I$	$-4.93480 - 3.23200I$	0
$u = -0.68913 - 1.36774I$ $a = -0.651882 + 0.037119I$ $b = 0.139190 + 1.313850I$	$-4.93480 + 3.23200I$	0

Solutions to I_2^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.42519 + 1.56466I$ $a = 0.596297 - 0.157517I$ $b = -0.103555 - 1.115340I$	$-4.93480 + 0.82777I$	0
$u = 0.42519 - 1.56466I$ $a = 0.596297 + 0.157517I$ $b = -0.103555 + 1.115340I$	$-4.93480 - 0.82777I$	0
$u = 0.089046 + 0.280790I$ $a = 3.31552 - 0.72925I$ $b = -0.531251 + 1.069240I$	$-4.93480 - 5.55830I$	$-2.00000 + 1.67128I$
$u = 0.089046 - 0.280790I$ $a = 3.31552 + 0.72925I$ $b = -0.531251 - 1.069240I$	$-4.93480 + 5.55830I$	$-2.00000 - 1.67128I$
$u = 0.81330 + 1.51334I$ $a = 0.581788 - 0.017729I$ $b = -0.068128 - 1.345270I$	$-10.07380 + 5.91469I$	0
$u = 0.81330 - 1.51334I$ $a = 0.581788 + 0.017729I$ $b = -0.068128 + 1.345270I$	$-10.07380 - 5.91469I$	0
$u = -0.49671 + 1.71193I$ $a = -0.544757 - 0.134009I$ $b = -0.021432 - 1.150630I$	$-10.07380 + 1.85492I$	0
$u = -0.49671 - 1.71193I$ $a = -0.544757 + 0.134009I$ $b = -0.021432 + 1.150630I$	$-10.07380 - 1.85492I$	0

III. $I_3^u = \langle b+u,\ -u^8-5u^6+\cdots+a-3,\ u^{11}+6u^9+\cdots+3u+1\rangle$

(i) Arc colorings

$$a_2 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_9 = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_3 = \begin{pmatrix}1\\-u^2\end{pmatrix}$$
$$a_6 = \begin{pmatrix}u^8+5u^6+u^5+10u^4+3u^3+9u^2+3u+3\\-u\end{pmatrix}$$
$$a_7 = \begin{pmatrix}u^8+5u^6+u^5+10u^4+3u^3+9u^2+2u+3\\-u\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}u^{10}+5u^8+u^7+9u^6+3u^5+5u^4+2u^3-3u^2-2u-3\\-u^{10}-5u^8-u^7-10u^6-3u^5-9u^4-3u^3-3u^2+u\end{pmatrix}$$
$$a_1 = \begin{pmatrix}-u^9-5u^7-u^6-10u^5-3u^4-9u^3-2u^2-3u+1\\u^2\end{pmatrix}$$
$$a_4 = \begin{pmatrix}u^9+6u^7+2u^6+14u^5+7u^4+15u^3+9u^2+6u+3\\-u^9-5u^7-10u^5-u^4-9u^3-3u^2-3u-1\end{pmatrix}$$
$$a_8 = \begin{pmatrix}-u\\u^3+u\end{pmatrix}$$
$$a_5 = \begin{pmatrix}u^8+5u^6+u^5+10u^4+4u^3+9u^2+4u+3\\-u^5-2u^3-2u\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}u^{10}-u^9+5u^8-5u^7+9u^6-10u^5+5u^4-9u^3-2u^2-3u-2\\u^9-u^8+4u^7-4u^6+6u^5-6u^4+3u^3-2u^2+u\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}u^{10}-u^9+5u^8-5u^7+9u^6-10u^5+5u^4-9u^3-2u^2-3u-2\\u^9-u^8+4u^7-4u^6+6u^5-6u^4+3u^3-2u^2+u\end{pmatrix}$$

(ii) Obstruction class $=1$

(iii) Cusp Shapes
$= -u^{10}-7u^9-6u^8-40u^7-22u^6-92u^5-44u^4-96u^3-43u^2-37u-10$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_8	$u^{11}+6u^9-u^8+15u^7-4u^6+19u^5-6u^4+12u^3-3u^2+3u-1$
c_2, c_6	$u^{11}+6u^9+u^8+15u^7+4u^6+19u^5+6u^4+12u^3+3u^2+3u+1$
c_3	$u^{11}+3u^{10}+5u^9+u^8-2u^7+6u^6+25u^5+21u^4+4u^3-2u^2+3u-1$
c_4	$u^{11}-u^{10}-5u^9+4u^8+9u^7-3u^6-7u^5-5u^4+3u^3+5u^2-u+1$
c_5, c_7	$u^{11}-u^{10}+u^9+2u^8-u^7+u^6+2u^5+2u^4+u^2+2u+1$
c_9	$u^{11}-2u^{10}+u^9+2u^7-2u^6+u^5+u^4+2u^3-u^2-u-1$
c_{10}, c_{11}	$u^{11}+u^{10}-5u^9-4u^8+9u^7+3u^6-7u^5+5u^4+3u^3-5u^2-u-1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_6 c_8	$y^{11} + 12y^{10} + \cdots + 3y - 1$
c_3	$y^{11} + y^{10} + \cdots + 5y - 1$
c_4, c_{10}, c_{11}	$y^{11} - 11y^{10} + \cdots - 9y - 1$
c_5, c_7	$y^{11} + y^{10} + 3y^9 + 5y^7 - 7y^6 + 2y^5 - 14y^4 + 2y^3 - 5y^2 + 2y - 1$
c_9	$y^{11} - 2y^{10} + 5y^9 - 2y^8 + 14y^7 - 2y^6 + 7y^5 - 5y^4 - 3y^2 - y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.418339 + 0.831995I$ $a = -0.606054 + 1.113310I$ $b = 0.418339 - 0.831995I$	$-5.21814 - 6.73322I$	$-3.33459 + 9.11200I$
$u = -0.418339 - 0.831995I$ $a = -0.606054 - 1.113310I$ $b = 0.418339 + 0.831995I$	$-5.21814 + 6.73322I$	$-3.33459 - 9.11200I$
$u = 0.206293 + 0.670051I$ $a = 0.29791 + 2.15781I$ $b = -0.206293 - 0.670051I$	$0.39973 + 2.50595I$	$8.65215 - 11.04149I$
$u = 0.206293 - 0.670051I$ $a = 0.29791 - 2.15781I$ $b = -0.206293 + 0.670051I$	$0.39973 - 2.50595I$	$8.65215 + 11.04149I$
$u = -0.336362 + 1.325590I$ $a = -0.618059 - 0.244698I$ $b = 0.336362 - 1.325590I$	$-4.66204 - 2.24789I$	$1.66012 + 1.37513I$
$u = -0.336362 - 1.325590I$ $a = -0.618059 + 0.244698I$ $b = 0.336362 + 1.325590I$	$-4.66204 + 2.24789I$	$1.66012 - 1.37513I$
$u = 0.462153 + 1.313220I$ $a = 0.544440 - 0.032729I$ $b = -0.462153 - 1.313220I$	$-8.67034 + 0.51327I$	$-6.20283 + 0.66507I$
$u = 0.462153 - 1.313220I$ $a = 0.544440 + 0.032729I$ $b = -0.462153 + 1.313220I$	$-8.67034 - 0.51327I$	$-6.20283 - 0.66507I$
$u = 0.24138 + 1.42400I$ $a = 0.411635 - 0.412221I$ $b = -0.24138 - 1.42400I$	$-9.65640 + 4.37744I$	$-5.30226 - 2.74758I$
$u = 0.24138 - 1.42400I$ $a = 0.411635 + 0.412221I$ $b = -0.24138 + 1.42400I$	$-9.65640 - 4.37744I$	$-5.30226 + 2.74758I$

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.310244$ $a = 2.94026$ $b = 0.310244$	-0.313358	0.0548380

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_8	$(u^{11}+6u^9-u^8+15u^7-4u^6+19u^5-6u^4+12u^3-3u^2+3u-1)$ $\cdot(u^{25}+9u^{23}+\cdots+2u-1)(u^{48}+u^{47}+\cdots-114u+76)$
c_2, c_6	$(u^{11}+6u^9+u^8+15u^7+4u^6+19u^5+6u^4+12u^3+3u^2+3u+1)$ $\cdot(u^{25}+9u^{23}+\cdots+2u-1)(u^{48}+u^{47}+\cdots-114u+76)$
c_3	$(u^{11}+3u^{10}+5u^9+u^8-2u^7+6u^6+25u^5+21u^4+4u^3-2u^2+3u-1)$ $\cdot((u^{12}+3u^{11}+\cdots+4u+1)^4)(u^{25}-18u^{24}+\cdots+1946u-188)$
c_4	$(u^{11}-u^{10}-5u^9+4u^8+9u^7-3u^6-7u^5-5u^4+3u^3+5u^2-u+1)$ $\cdot(u^{12}-u^{11}-5u^{10}+4u^9+9u^8-4u^7-6u^6-2u^5+3u^3+u^2+1)^4$ $\cdot(u^{25}+6u^{24}+\cdots+14u-4)$
c_5, c_7	$(u^{11}-u^{10}+u^9+2u^8-u^7+u^6+2u^5+2u^4+u^2+2u+1)$ $\cdot(u^{25}-u^{24}+\cdots-3u-1)(u^{48}+13u^{47}+\cdots+54u+4)$
c_9	$((u^2+u+1)^{24})(u^{11}-2u^{10}+\cdots-u-1)$ $\cdot(u^{25}-23u^{24}+\cdots+49152u-4096)$
c_{10}, c_{11}	$(u^{11}+u^{10}-5u^9-4u^8+9u^7+3u^6-7u^5+5u^4+3u^3-5u^2-u-1)$ $\cdot(u^{12}-u^{11}-5u^{10}+4u^9+9u^8-4u^7-6u^6-2u^5+3u^3+u^2+1)^4$ $\cdot(u^{25}+6u^{24}+\cdots+14u-4)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_6 c_8	$(y^{11}+12y^{10}+\cdots+3y-1)(y^{25}+18y^{24}+\cdots+4y-1)$ $\cdot(y^{48}+39y^{47}+\cdots+220932y+5776)$
c_3	$(y^{11}+y^{10}+\cdots+5y-1)(y^{12}+y^{11}+\cdots-2y+1)^4$ $\cdot(y^{25}+2y^{24}+\cdots+360428y-35344)$
c_4, c_{10}, c_{11}	$(y^{11}-11y^{10}+\cdots-9y-1)(y^{12}-11y^{11}+\cdots+2y+1)^4$ $\cdot(y^{25}-22y^{24}+\cdots+140y-16)$
c_5, c_7	$(y^{11}+y^{10}+3y^9+5y^7-7y^6+2y^5-14y^4+2y^3-5y^2+2y-1)$ $\cdot(y^{25}-5y^{24}+\cdots+19y-1)(y^{48}+11y^{47}+\cdots+356y+16)$
c_9	$(y^2+y+1)^{24}$ $\cdot(y^{11}-2y^{10}+5y^9-2y^8+14y^7-2y^6+7y^5-5y^4-3y^2-y-1)$ $\cdot(y^{25}-y^{24}+\cdots+25165824y-16777216)$