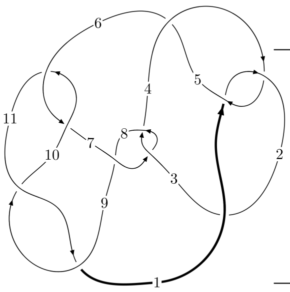
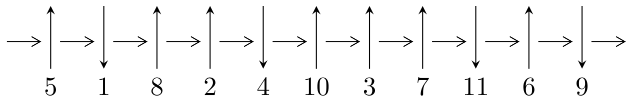
$11a_{51}$ ($K11a_{51}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$
\begin{aligned}
I^u_1 = \langle &-5u^{14} + 23u^{13} + \cdots + 4b - 28,\\
&2u^{14} - 7u^{13} + 9u^{12} + 6u^{11} - 33u^{10} + 42u^9 - 6u^8 - 42u^7 + 53u^6 - 19u^5 - 7u^4 + 6u^3 + 11u^2 + 4a - 10u + 2,\\
&u^{15} - 5u^{14} + 10u^{13} - 5u^{12} - 18u^{11} + 44u^{10} - 40u^9 - 3u^8 + 49u^7 - 55u^6 + 26u^5 - u^4 + 2u^3 - 12u^2 + 12u -
\end{aligned}
$$

$$I^u_2 = \langle 2u^{22}a + 8u^{22} + \cdots - 4a - 16,\ -2u^{21}a + 7u^{22} + \cdots + 6a - 11,\ u^{23} + 2u^{22} + \cdots - 5u - 2\rangle$$

$$I^v_1 = \langle a,\ b^2 - b + 1,\ v + 1\rangle$$

$$I^v_2 = \langle a,\ b - v,\ v^2 - v + 1\rangle$$

* 4 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 65 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. $\boldsymbol{I_1^u =}$
$\boldsymbol{\langle -5u^{14}+23u^{13}+\cdots+4b-28,\ 2u^{14}-7u^{13}+\cdots+4a+2,\ u^{15}-5u^{14}+\cdots+12u-4\rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_7 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_8 = \begin{pmatrix}1\\-u^2\end{pmatrix}$$
$$a_4 = \begin{pmatrix}u\\-u^3+u\end{pmatrix}$$
$$a_1 = \begin{pmatrix}-\frac{1}{2}u^{14}+\frac{7}{4}u^{13}+\cdots+\frac{5}{2}u-\frac{1}{2}\\ \frac{5}{4}u^{14}-\frac{23}{4}u^{13}+\cdots-\frac{27}{2}u+7\end{pmatrix}$$
$$a_9 = \begin{pmatrix}-u^2+1\\-u^2\end{pmatrix}$$
$$a_2 = \begin{pmatrix}-\frac{1}{4}u^{14}+u^{13}+\cdots+\frac{3}{2}u-\frac{1}{2}\\ -\frac{1}{4}u^{14}+\frac{3}{4}u^{13}+\cdots-u^2+\frac{3}{2}u\end{pmatrix}$$
$$a_5 = \begin{pmatrix}\frac{3}{4}u^{14}-4u^{13}+\cdots-9u+\frac{9}{2}\\ \frac{7}{4}u^{14}-\frac{29}{4}u^{13}+\cdots-\frac{25}{2}u+5\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}-\frac{5}{4}u^{14}+\frac{9}{2}u^{13}+\cdots+6u-\frac{5}{2}\\ -\frac{1}{4}u^{14}-\frac{1}{4}u^{13}+\cdots-\frac{9}{2}u+3\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}-\frac{1}{2}u^{14}+\frac{7}{4}u^{13}+\cdots+2u+\frac{1}{2}\\ -\frac{1}{4}u^{14}+\frac{3}{4}u^{13}+\cdots-2u^2+\frac{1}{2}u\end{pmatrix}$$
$$a_6 = \begin{pmatrix}\frac{7}{4}u^{14}-\frac{15}{2}u^{13}+\cdots-16u+\frac{15}{2}\\ \frac{3}{4}u^{14}-\frac{11}{4}u^{13}+\cdots-\frac{11}{2}u+2\end{pmatrix}$$
$$a_6 = \begin{pmatrix}\frac{7}{4}u^{14}-\frac{15}{2}u^{13}+\cdots-16u+\frac{15}{2}\\ \frac{3}{4}u^{14}-\frac{11}{4}u^{13}+\cdots-\frac{11}{2}u+2\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 13u^{14}-58u^{13}+91u^{12}+9u^{11}-253u^{10}+402u^9-196u^8-247u^7+488u^6-328u^5+45u^4+37u^3+59u^2-114u+58$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4, c_6 c_{10}	$u^{15} + u^{14} + \cdots + 2u - 1$
c_2, c_5, c_9 c_{11}	$u^{15} + 5u^{14} + \cdots + 18u^2 - 1$
c_3, c_7	$u^{15} - 5u^{14} + \cdots + 12u - 4$
c_8	$u^{15} - 5u^{14} + \cdots + 48u - 16$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4, c_6 c_{10}	$y^{15} + 5y^{14} + \cdots + 18y^2 - 1$
c_2, c_5, c_9 c_{11}	$y^{15} + 13y^{14} + \cdots + 36y - 1$
c_3, c_7	$y^{15} - 5y^{14} + \cdots + 48y - 16$
c_8	$y^{15} + 3y^{14} + \cdots - 1024y - 256$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.297110 + 1.013620I$ $a = -0.987350 - 0.311397I$ $b = -0.738671 + 0.490241I$	$3.26489 + 2.24335I$	$7.04256 - 3.44027I$
$u = 0.297110 - 1.013620I$ $a = -0.987350 + 0.311397I$ $b = -0.738671 - 0.490241I$	$3.26489 - 2.24335I$	$7.04256 + 3.44027I$
$u = 0.843039 + 0.715120I$ $a = 0.718904 - 0.735528I$ $b = -0.47287 - 1.47924I$	$-6.27477 + 2.71677I$	$-5.40032 - 3.41816I$
$u = 0.843039 - 0.715120I$ $a = 0.718904 + 0.735528I$ $b = -0.47287 + 1.47924I$	$-6.27477 - 2.71677I$	$-5.40032 + 3.41816I$
$u = 0.528547 + 1.045590I$ $a = 1.235390 + 0.154632I$ $b = 0.915557 - 0.882680I$	$1.75577 - 8.71874I$	$3.93323 + 7.24615I$
$u = 0.528547 - 1.045590I$ $a = 1.235390 - 0.154632I$ $b = 0.915557 + 0.882680I$	$1.75577 + 8.71874I$	$3.93323 - 7.24615I$
$u = -0.548950 + 0.445559I$ $a = -0.294279 - 0.663565I$ $b = -0.232624 - 0.217433I$	$-1.34006 - 1.53790I$	$-1.51731 + 5.00908I$
$u = -0.548950 - 0.445559I$ $a = -0.294279 + 0.663565I$ $b = -0.232624 + 0.217433I$	$-1.34006 + 1.53790I$	$-1.51731 - 5.00908I$
$u = 0.700518$ $a = -0.240121$ $b = 0.561665$	0.940705	11.2760
$u = 1.194600 + 0.597734I$ $a = 0.209836 + 0.830578I$ $b = 1.56955 + 0.92220I$	$6.11311 + 3.45523I$	$8.74146 - 0.79948I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.194600 - 0.597734I$ $a = 0.209836 - 0.830578I$ $b = 1.56955 - 0.92220I$	$6.11311 - 3.45523I$	$8.74146 + 0.79948I$
$u = -1.338190 + 0.093539I$ $a = -0.043731 - 1.064360I$ $b = -0.043240 - 0.609135I$	$9.46149 - 5.98215I$	$9.71265 + 5.53392I$
$u = -1.338190 - 0.093539I$ $a = -0.043731 + 1.064360I$ $b = -0.043240 + 0.609135I$	$9.46149 + 5.98215I$	$9.71265 - 5.53392I$
$u = 1.173580 + 0.723559I$ $a = -0.218707 - 1.141120I$ $b = -1.77854 - 1.21305I$	$3.8210 + 15.1159I$	$4.84980 - 10.19781I$
$u = 1.173580 - 0.723559I$ $a = -0.218707 + 1.141120I$ $b = -1.77854 + 1.21305I$	$3.8210 - 15.1159I$	$4.84980 + 10.19781I$

II. $\boldsymbol{I_2^u = \langle 2u^{22}a + 8u^{22} + \cdots - 4a - 16,\ -2u^{21}a + 7u^{22} + \cdots + 6a - 11,\ u^{23} + 2u^{22} + \cdots - 5u - 2\rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} a \\ -u^{22}a - 4u^{22} + \cdots + 2a + 8 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u^2 + 1 \\ -u^2 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} \frac{1}{2}u^{22}a + \frac{3}{2}u^{22} + \cdots - 6u - \frac{7}{2} \\ -\frac{7}{2}u^{22}a - \frac{5}{2}u^{22} + \cdots + 8a + 8 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -u^{22}a - 4u^{22} + \cdots + a + 8 \\ -\frac{1}{2}u^{22} - \frac{1}{2}u^{21} + \cdots + au + \frac{3}{2}u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -\frac{1}{2}u^{19} + 2u^{17} + \cdots + a - 1 \\ -u^{22}a - \frac{7}{2}u^{22} + \cdots + 2a + 7 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 3u^{22} + \frac{5}{2}u^{21} + \cdots - 10u - \frac{9}{2} \\ \frac{7}{2}u^{22}a + \frac{5}{2}u^{22} + \cdots - 7a - 6 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -u^{22}a - 4u^{22} + \cdots + a + 8 \\ -\frac{1}{2}u^{22} - \frac{1}{2}u^{21} + \cdots + au + \frac{3}{2}u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -u^{22}a - 4u^{22} + \cdots + a + 8 \\ -\frac{1}{2}u^{22} - \frac{1}{2}u^{21} + \cdots + au + \frac{3}{2}u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes
$= -3u^{22} - 6u^{21} + 13u^{20} + 32u^{19} - 22u^{18} - 86u^{17} + 9u^{16} + 146u^{15} + 52u^{14} - 172u^{13} - 134u^{12} + 142u^{11} + 194u^{10} - 86u^9 - 185u^8 + 26u^7 + 133u^6 + 16u^5 - 53u^4 - 28u^3 + 4u^2 + 14u + 15$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4, c_6 c_{10}	$u^{46} + 2u^{45} + \cdots + 3u + 1$
c_2, c_5, c_9 c_{11}	$u^{46} + 16u^{45} + \cdots - 7u + 1$
c_3, c_7	$(u^{23} + 2u^{22} + \cdots - 5u - 2)^2$
c_8	$(u^{23} - 10u^{22} + \cdots + 9u - 4)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4, c_6 c_{10}	$y^{46} + 16y^{45} + \cdots - 7y + 1$
c_2, c_5, c_9 c_{11}	$y^{46} + 28y^{45} + \cdots - 31y + 1$
c_3, c_7	$(y^{23} - 10y^{22} + \cdots + 9y - 4)^2$
c_8	$(y^{23} + 6y^{22} + \cdots + 81y - 16)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.639801 + 0.747481I$ $a = 0.727893 - 0.688432I$ $b = 0.26465 - 1.54953I$	$-2.85626 - 3.41905I$	$-2.17452 + 2.62575I$
$u = 0.639801 + 0.747481I$ $a = 1.368810 + 0.331230I$ $b = 0.347272 - 0.897201I$	$-2.85626 - 3.41905I$	$-2.17452 + 2.62575I$
$u = 0.639801 - 0.747481I$ $a = 0.727893 + 0.688432I$ $b = 0.26465 + 1.54953I$	$-2.85626 + 3.41905I$	$-2.17452 - 2.62575I$
$u = 0.639801 - 0.747481I$ $a = 1.368810 - 0.331230I$ $b = 0.347272 + 0.897201I$	$-2.85626 + 3.41905I$	$-2.17452 - 2.62575I$
$u = 0.892339 + 0.406575I$ $a = -0.099975 - 1.361930I$ $b = -0.81309 - 2.02727I$	$0.68141 + 1.67196I$	$4.30301 - 3.03015I$
$u = 0.892339 + 0.406575I$ $a = 1.245900 + 0.653876I$ $b = -0.365826 - 0.883644I$	$0.68141 + 1.67196I$	$4.30301 - 3.03015I$
$u = 0.892339 - 0.406575I$ $a = -0.099975 + 1.361930I$ $b = -0.81309 + 2.02727I$	$0.68141 - 1.67196I$	$4.30301 + 3.03015I$
$u = 0.892339 - 0.406575I$ $a = 1.245900 - 0.653876I$ $b = -0.365826 + 0.883644I$	$0.68141 - 1.67196I$	$4.30301 + 3.03015I$
$u = 1.050370 + 0.349306I$ $a = 0.291173 + 0.949009I$ $b = 1.18138 + 1.14414I$	$3.69234 + 0.67223I$	$9.57904 - 0.98278I$
$u = 1.050370 + 0.349306I$ $a = -0.472020 - 0.128106I$ $b = 0.866881 + 0.515908I$	$3.69234 + 0.67223I$	$9.57904 - 0.98278I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.050370 - 0.349306I$ $a = 0.291173 - 0.949009I$ $b = 1.18138 - 1.14414I$	$3.69234 - 0.67223I$	$9.57904 + 0.98278I$
$u = 1.050370 - 0.349306I$ $a = -0.472020 + 0.128106I$ $b = 0.866881 - 0.515908I$	$3.69234 - 0.67223I$	$9.57904 + 0.98278I$
$u = -0.423739 + 1.023080I$ $a = 0.901532 - 0.308315I$ $b = 0.646872 + 0.688817I$	$2.61521 + 3.21096I$	$5.70075 - 2.17483I$
$u = -0.423739 + 1.023080I$ $a = -1.263400 + 0.094664I$ $b = -0.912235 - 0.683061I$	$2.61521 + 3.21096I$	$5.70075 - 2.17483I$
$u = -0.423739 - 1.023080I$ $a = 0.901532 + 0.308315I$ $b = 0.646872 - 0.688817I$	$2.61521 - 3.21096I$	$5.70075 + 2.17483I$
$u = -0.423739 - 1.023080I$ $a = -1.263400 - 0.094664I$ $b = -0.912235 + 0.683061I$	$2.61521 - 3.21096I$	$5.70075 + 2.17483I$
$u = -0.649214 + 0.610986I$ $a = -0.654087 - 0.683089I$ $b = -0.163180 - 1.021730I$	$-1.56921 - 1.42863I$	$0.37479 + 3.46803I$
$u = -0.649214 + 0.610986I$ $a = 0.540359 - 0.440252I$ $b = -0.111799 + 0.519787I$	$-1.56921 - 1.42863I$	$0.37479 + 3.46803I$
$u = -0.649214 - 0.610986I$ $a = -0.654087 + 0.683089I$ $b = -0.163180 + 1.021730I$	$-1.56921 + 1.42863I$	$0.37479 - 3.46803I$
$u = -0.649214 - 0.610986I$ $a = 0.540359 + 0.440252I$ $b = -0.111799 - 0.519787I$	$-1.56921 + 1.42863I$	$0.37479 - 3.46803I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.857444+0.223332I$ $a=-0.434590+1.081100I$ $b=-1.15099+1.59199I$	$1.26940+3.50227I$	$6.61882-3.38553I$
$u=-0.857444+0.223332I$ $a=-1.20976+0.81324I$ $b=\quad 0.500178-0.598051I$	$1.26940+3.50227I$	$6.61882-3.38553I$
$u=-0.857444-0.223332I$ $a=-0.434590-1.081100I$ $b=-1.15099-1.59199I$	$1.26940-3.50227I$	$6.61882+3.38553I$
$u=-0.857444-0.223332I$ $a=-1.20976-0.81324I$ $b=\quad 0.500178+0.598051I$	$1.26940-3.50227I$	$6.61882+3.38553I$
$u=-0.975157+0.564788I$ $a=-0.742547-0.767125I$ $b=\quad 0.918100-1.023970I$	$-0.57975-3.22642I$	$2.48526+3.26705I$
$u=-0.975157+0.564788I$ $a=-0.313926+0.810399I$ $b=-1.47433+1.18838I$	$-0.57975-3.22642I$	$2.48526+3.26705I$
$u=-0.975157-0.564788I$ $a=-0.742547+0.767125I$ $b=\quad 0.918100+1.023970I$	$-0.57975+3.22642I$	$2.48526-3.26705I$
$u=-0.975157-0.564788I$ $a=-0.313926-0.810399I$ $b=-1.47433-1.18838I$	$-0.57975+3.22642I$	$2.48526-3.26705I$
$u=-1.058660+0.462903I$ $a=\quad 0.115203-1.237340I$ $b=\quad 0.99587-1.50991I$	$2.96583-6.20103I$	$7.62650+6.52033I$
$u=-1.058660+0.462903I$ $a=\quad 0.507084-0.155808I$ $b=-0.806153+0.696216I$	$2.96583-6.20103I$	$7.62650+6.52033I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.058660 - 0.462903I$ $a = 0.115203 + 1.237340I$ $b = 0.99587 + 1.50991I$	$2.96583 + 6.20103I$	$7.62650 - 6.52033I$
$u = -1.058660 - 0.462903I$ $a = 0.507084 + 0.155808I$ $b = -0.806153 - 0.696216I$	$2.96583 + 6.20103I$	$7.62650 - 6.52033I$
$u = 1.017600 + 0.636625I$ $a = 0.744768 - 0.749497I$ $b = -1.04484 - 1.24551I$	$-1.67882 + 8.70149I$	$0.49306 - 7.84909I$
$u = 1.017600 + 0.636625I$ $a = -0.217050 - 1.226050I$ $b = -1.50533 - 1.64405I$	$-1.67882 + 8.70149I$	$0.49306 - 7.84909I$
$u = 1.017600 - 0.636625I$ $a = 0.744768 + 0.749497I$ $b = -1.04484 + 1.24551I$	$-1.67882 - 8.70149I$	$0.49306 + 7.84909I$
$u = 1.017600 - 0.636625I$ $a = -0.217050 + 1.226050I$ $b = -1.50533 + 1.64405I$	$-1.67882 - 8.70149I$	$0.49306 + 7.84909I$
$u = 1.33812$ $a = 0.075989 + 1.040970I$ $b = 0.300733 + 0.595751I$	9.53870	9.98620
$u = 1.33812$ $a = 0.075989 - 1.040970I$ $b = 0.300733 - 0.595751I$	9.53870	9.98620
$u = -1.183710 + 0.666071I$ $a = 0.195146 - 1.147490I$ $b = 1.61477 - 1.17057I$	$5.02301 - 9.28326I$	$6.87076 + 5.60434I$
$u = -1.183710 + 0.666071I$ $a = -0.206318 + 0.804811I$ $b = -1.66505 + 0.97289I$	$5.02301 - 9.28326I$	$6.87076 + 5.60434I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.183710 - 0.666071I$ $a = \quad 0.195146 + 1.147490I$ $b = \quad 1.61477 + 1.17057I$	$5.02301 + 9.28326I$	$6.87076 - 5.60434I$
$u = -1.183710 - 0.666071I$ $a = -0.206318 - 0.804811I$ $b = -1.66505 - 0.97289I$	$5.02301 + 9.28326I$	$6.87076 - 5.60434I$
$u = -0.121237 + 0.604443I$ $a = -1.76798 - 0.31454I$ $b = -0.373843 - 0.180509I$	$0.47190 + 2.34013I$	$2.62944 - 2.83732I$
$u = -0.121237 + 0.604443I$ $a = -0.082205 + 0.174275I$ $b = -0.250037 + 0.826429I$	$0.47190 + 2.34013I$	$2.62944 - 2.83732I$
$u = -0.121237 - 0.604443I$ $a = -1.76798 + 0.31454I$ $b = -0.373843 + 0.180509I$	$0.47190 - 2.34013I$	$2.62944 + 2.83732I$
$u = -0.121237 - 0.604443I$ $a = -0.082205 - 0.174275I$ $b = -0.250037 - 0.826429I$	$0.47190 - 2.34013I$	$2.62944 + 2.83732I$

III. $\boldsymbol{I_1^v = \langle a,\ b^2 - b + 1,\ v + 1\rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0 \\ b \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -1 \\ b - 1 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -b \\ -b \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} b \\ b \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} b \\ b - 1 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0 \\ -b \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0 \\ -b \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 8b - 4$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_5 c_6, c_{11}	$u^2 + u + 1$
c_3, c_7, c_8	u^2
c_4, c_9, c_{10}	$u^2 - u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_4 c_5, c_6, c_9 c_{10}, c_{11}	$y^2 + y + 1$
c_3, c_7, c_8	y^2

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^v	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$v = -1.00000$ $a = 0$ $b = 0.500000 + 0.866025I$	$-4.05977I$	$0. + 6.92820I$
$v = -1.00000$ $a = 0$ $b = 0.500000 - 0.866025I$	$4.05977I$	$0. - 6.92820I$

IV. $\boldsymbol{I_2^v = \langle a,\ b - v,\ v^2 - v + 1\rangle}$

(i) Arc colorings

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

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} v \\ 0 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0 \\ v \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} v \\ 1 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1 \\ -v \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} v \\ v \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} v \\ v - 1 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0 \\ -v \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0 \\ -v \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 3$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_5 c_6, c_{11}	$u^2 + u + 1$
c_3, c_7, c_8	u^2
c_4, c_9, c_{10}	$u^2 - u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_4 c_5, c_6, c_9 c_{10}, c_{11}	$y^2 + y + 1$
c_3, c_7, c_8	y^2

(vi) Complex Volumes and Cusp Shapes

	Solutions to I_2^v	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$v =$	$0.500000 + 0.866025I$		
$a =$	0	0	3.00000
$b =$	$0.500000 + 0.866025I$		
$v =$	$0.500000 - 0.866025I$		
$a =$	0	0	3.00000
$b =$	$0.500000 - 0.866025I$		

V. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_6	$((u^2+u+1)^2)(u^{15}+u^{14}+\cdots+2u-1)(u^{46}+2u^{45}+\cdots+3u+1)$
c_2, c_5, c_{11}	$((u^2+u+1)^2)(u^{15}+5u^{14}+\cdots+18u^2-1)(u^{46}+16u^{45}+\cdots-7u+1)$
c_3, c_7	$u^4(u^{15}-5u^{14}+\cdots+12u-4)(u^{23}+2u^{22}+\cdots-5u-2)^2$
c_4, c_{10}	$((u^2-u+1)^2)(u^{15}+u^{14}+\cdots+2u-1)(u^{46}+2u^{45}+\cdots+3u+1)$
c_8	$u^4(u^{15}-5u^{14}+\cdots+48u-16)(u^{23}-10u^{22}+\cdots+9u-4)^2$
c_9	$((u^2-u+1)^2)(u^{15}+5u^{14}+\cdots+18u^2-1)(u^{46}+16u^{45}+\cdots-7u+1)$

VI. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_4, c_6 c_{10}	$((y^2+y+1)^2)(y^{15}+5y^{14}+\cdots+18y^2-1)(y^{46}+16y^{45}+\cdots-7y+1)$
c_2, c_5, c_9 c_{11}	$((y^2+y+1)^2)(y^{15}+13y^{14}+\cdots+36y-1)$ $\cdot(y^{46}+28y^{45}+\cdots-31y+1)$
c_3, c_7	$y^4(y^{15}-5y^{14}+\cdots+48y-16)(y^{23}-10y^{22}+\cdots+9y-4)^2$
c_8	$y^4(y^{15}+3y^{14}+\cdots-1024y-256)(y^{23}+6y^{22}+\cdots+81y-16)^2$