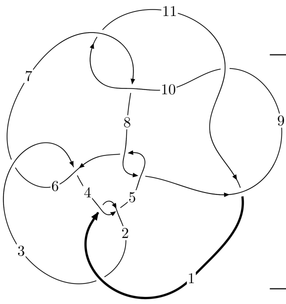
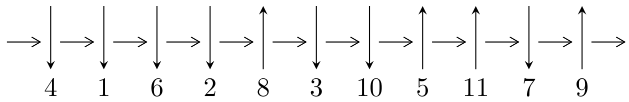
$11a_{17}$ ($K11a_{17}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -5.94953\times 10^{22}u^{70} - 2.28036\times 10^{23}u^{69} + \cdots + 2.14833\times 10^{22}b - 2.53129\times 10^{22},$$
$$9.79183\times 10^{20}u^{70} + 3.59725\times 10^{22}u^{69} + \cdots + 1.07416\times 10^{22}a - 8.03639\times 10^{22},\ u^{71} + 5u^{70} + \cdots + 16u +$$
$$I_2^u = \langle -3a^2u + 2a^2 - 4au + 7b + 5a - u + 10,\ a^3 - a^2u + 2a^2 + 3au - a + 5u,\ u^2 - u + 1\rangle$$
$$I_3^u = \langle b,\ -u^3 - 2u^2 + a - 2u,\ u^4 + u^3 + u^2 + 1\rangle$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 81 representations.

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[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. $I_1^u = \langle -5.95 \times 10^{22} u^{70} - 2.28 \times 10^{23} u^{69} + \cdots + 2.15 \times 10^{22} b - 2.53 \times 10^{22},\ 9.79 \times 10^{20} u^{70} + 3.60 \times 10^{22} u^{69} + \cdots + 1.07 \times 10^{22} a - 8.04 \times 10^{22},\ u^{71} + 5u^{70} + \cdots + 16u + 1 \rangle$

(i) Arc colorings

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

$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -0.0911577u^{70} - 3.34888u^{69} + \cdots - 37.5984u + 7.48153 \\ 2.76938u^{70} + 10.6146u^{69} + \cdots + 12.1316u + 1.17826 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -u \\ u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 4.02087u^{70} + 14.8653u^{69} + \cdots + 22.0738u - 2.91262 \\ -2.20047u^{70} - 6.62609u^{69} + \cdots + 2.44001u - 0.00293030 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -4.91020u^{70} - 23.2455u^{69} + \cdots - 75.9832u + 7.34450 \\ 5.57560u^{70} + 18.7187u^{69} + \cdots - 10.4341u - 0.354339 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 8.28715u^{70} + 36.7438u^{69} + \cdots + 99.4370u + 2.32932 \\ -8.83708u^{70} - 30.6563u^{69} + \cdots - 10.5783u - 0.549932 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u^3 \\ u^3 + u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -u^5 - u \\ u^5 + u^3 + u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 1.84442u^{70} + 6.91573u^{69} + \cdots + 0.676442u + 9.99389 \\ 0.311963u^{70} + 1.82295u^{69} + \cdots + 10.8155u + 1.16954 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 1.84442u^{70} + 6.91573u^{69} + \cdots + 0.676442u + 9.99389 \\ 0.311963u^{70} + 1.82295u^{69} + \cdots + 10.8155u + 1.16954 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= \frac{14007707892704021288689}{10741642455012495551282}u^{70} + \frac{52903988225635842251755}{10741642455012495551282}u^{69} + \cdots + \frac{40621882222883188296426 5}{10741642455012495551282}u - \frac{31847081302722889929098}{5370821227506247775641}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4	$u^{71} - 7u^{70} + \cdots - 19u + 1$
c_2	$u^{71} + 35u^{70} + \cdots + 91u + 1$
c_3, c_6	$u^{71} - 3u^{70} + \cdots - 72u + 16$
c_5, c_8	$u^{71} + 2u^{70} + \cdots + 224u + 64$
c_7, c_{10}	$u^{71} - 5u^{70} + \cdots + 16u - 1$
c_9, c_{11}	$u^{71} - 23u^{70} + \cdots + 246u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4	$y^{71} - 35y^{70} + \cdots + 91y - 1$
c_2	$y^{71} + 9y^{70} + \cdots + 3279y - 1$
c_3, c_6	$y^{71} + 33y^{70} + \cdots - 4800y - 256$
c_5, c_8	$y^{71} + 40y^{70} + \cdots - 39936y - 4096$
c_7, c_{10}	$y^{71} + 23y^{70} + \cdots + 246y - 1$
c_9, c_{11}	$y^{71} + 55y^{70} + \cdots + 62490y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.469540 + 0.901499I$ $a = -2.34185 + 1.83693I$ $b = -0.440954 - 0.146276I$	$-1.31688 - 1.88106I$	$-31.3196 + 4.6871I$
$u = 0.469540 - 0.901499I$ $a = -2.34185 - 1.83693I$ $b = -0.440954 + 0.146276I$	$-1.31688 + 1.88106I$	$-31.3196 - 4.6871I$
$u = 0.703653 + 0.685371I$ $a = -0.410681 + 0.049842I$ $b = -0.285900 + 0.818152I$	$0.185937 - 1.104380I$	$-1.16040 + 2.40265I$
$u = 0.703653 - 0.685371I$ $a = -0.410681 - 0.049842I$ $b = -0.285900 - 0.818152I$	$0.185937 + 1.104380I$	$-1.16040 - 2.40265I$
$u = -0.066834 + 0.978657I$ $a = -0.76286 - 2.56276I$ $b = -0.149859 + 1.246530I$	$5.52736 - 0.93567I$	$4.64414 + 2.41235I$
$u = -0.066834 - 0.978657I$ $a = -0.76286 + 2.56276I$ $b = -0.149859 - 1.246530I$	$5.52736 + 0.93567I$	$4.64414 - 2.41235I$
$u = 0.199067 + 1.029270I$ $a = 0.844886 - 0.722840I$ $b = -0.903463 + 0.396432I$	$-0.16872 - 3.86400I$	$0. + 6.04330I$
$u = 0.199067 - 1.029270I$ $a = 0.844886 + 0.722840I$ $b = -0.903463 - 0.396432I$	$-0.16872 + 3.86400I$	$0. - 6.04330I$
$u = 0.228246 + 0.913383I$ $a = -0.23825 + 3.38061I$ $b = -0.223038 - 0.668311I$	$-1.01028 - 1.75385I$	$0.38756 + 7.39042I$
$u = 0.228246 - 0.913383I$ $a = -0.23825 - 3.38061I$ $b = -0.223038 + 0.668311I$	$-1.01028 + 1.75385I$	$0.38756 - 7.39042I$

Solutions to I^u_1	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.644181 + 0.840361I$ $a = -1.06472 - 1.25613I$ $b = 0.21087 + 1.49010I$	$2.18680 - 0.67401I$	0
$u = -0.644181 - 0.840361I$ $a = -1.06472 + 1.25613I$ $b = 0.21087 - 1.49010I$	$2.18680 + 0.67401I$	0
$u = -0.170132 + 0.914729I$ $a = 1.00662 + 2.47886I$ $b = 0.419700 - 1.267450I$	$4.39627 + 4.60339I$	$3.32762 - 2.73353I$
$u = -0.170132 - 0.914729I$ $a = 1.00662 - 2.47886I$ $b = 0.419700 + 1.267450I$	$4.39627 - 4.60339I$	$3.32762 + 2.73353I$
$u = -0.836021 + 0.673858I$ $a = 0.109662 - 0.484018I$ $b = 0.672234 + 1.164290I$	$-2.39090 - 4.48377I$	0
$u = -0.836021 - 0.673858I$ $a = 0.109662 + 0.484018I$ $b = 0.672234 - 1.164290I$	$-2.39090 + 4.48377I$	0
$u = 0.682896 + 0.834787I$ $a = 1.99324 - 0.92672I$ $b = 0.617687 + 0.601618I$	$-3.08372 - 1.52053I$	0
$u = 0.682896 - 0.834787I$ $a = 1.99324 + 0.92672I$ $b = 0.617687 - 0.601618I$	$-3.08372 + 1.52053I$	0
$u = -0.832336 + 0.724886I$ $a = -0.670615 - 0.613985I$ $b = -1.075770 + 0.627927I$	$-6.99333 - 3.33145I$	0
$u = -0.832336 - 0.724886I$ $a = -0.670615 + 0.613985I$ $b = -1.075770 - 0.627927I$	$-6.99333 + 3.33145I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.140143 + 1.101750I$ $a = -0.13050 - 2.45616I$ $b = 0.426470 + 1.144810I$	$4.31628 - 4.18567I$	0
$u = 0.140143 - 1.101750I$ $a = -0.13050 + 2.45616I$ $b = 0.426470 - 1.144810I$	$4.31628 + 4.18567I$	0
$u = -0.780059 + 0.792579I$ $a = 0.408945 + 0.711158I$ $b = 1.044280 - 0.406192I$	$-4.75730 + 1.60644I$	0
$u = -0.780059 - 0.792579I$ $a = 0.408945 - 0.711158I$ $b = 1.044280 + 0.406192I$	$-4.75730 - 1.60644I$	0
$u = -0.649958 + 0.906097I$ $a = 1.16875 + 1.58162I$ $b = 0.08760 - 1.49800I$	$2.40563 + 5.71061I$	0
$u = -0.649958 - 0.906097I$ $a = 1.16875 - 1.58162I$ $b = 0.08760 + 1.49800I$	$2.40563 - 5.71061I$	0
$u = -0.819648 + 0.758949I$ $a = -0.202166 + 0.947127I$ $b = -0.555895 - 1.022590I$	$-7.65318 - 0.42476I$	0
$u = -0.819648 - 0.758949I$ $a = -0.202166 - 0.947127I$ $b = -0.555895 + 1.022590I$	$-7.65318 + 0.42476I$	0
$u = -0.892301 + 0.672315I$ $a = -0.295771 + 0.358689I$ $b = -0.776807 - 1.153330I$	$-5.27544 - 10.02070I$	0
$u = -0.892301 - 0.672315I$ $a = -0.295771 - 0.358689I$ $b = -0.776807 + 1.153330I$	$-5.27544 + 10.02070I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.809277 + 0.772791I$ $a = 0.335402 - 0.318821I$ $b = 0.572324 - 0.999549I$	$-1.88125 + 3.19322I$	0
$u = 0.809277 - 0.772791I$ $a = 0.335402 + 0.318821I$ $b = 0.572324 + 0.999549I$	$-1.88125 - 3.19322I$	0
$u = 0.684814 + 0.898763I$ $a = 0.736483 - 0.552503I$ $b = 0.770057 - 0.536295I$	$-2.88221 - 3.75765I$	0
$u = 0.684814 - 0.898763I$ $a = 0.736483 + 0.552503I$ $b = 0.770057 + 0.536295I$	$-2.88221 + 3.75765I$	0
$u = 0.063523 + 0.862035I$ $a = -0.858693 + 0.495191I$ $b = 0.869259 + 0.100924I$	$0.623561 - 0.155557I$	$0.0220175 - 0.0069970I$
$u = 0.063523 - 0.862035I$ $a = -0.858693 - 0.495191I$ $b = 0.869259 - 0.100924I$	$0.623561 + 0.155557I$	$0.0220175 + 0.0069970I$
$u = 0.825029 + 0.180514I$ $a = -0.358331 + 0.374895I$ $b = -0.613697 - 1.017340I$	$-2.42985 - 6.27823I$	$-7.32031 + 6.32359I$
$u = 0.825029 - 0.180514I$ $a = -0.358331 - 0.374895I$ $b = -0.613697 + 1.017340I$	$-2.42985 + 6.27823I$	$-7.32031 - 6.32359I$
$u = 0.190670 + 1.155730I$ $a = 0.01366 + 2.28563I$ $b = -0.628836 - 1.153550I$	$2.15092 - 9.48353I$	0
$u = 0.190670 - 1.155730I$ $a = 0.01366 - 2.28563I$ $b = -0.628836 + 1.153550I$	$2.15092 + 9.48353I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.532399 + 1.050880I$ $a = -1.16792 + 1.12279I$ $b = 0.139051 - 0.972541I$	$1.97142 - 2.68154I$	0
$u = 0.532399 - 1.050880I$ $a = -1.16792 - 1.12279I$ $b = 0.139051 + 0.972541I$	$1.97142 + 2.68154I$	0
$u = 0.682581 + 0.973399I$ $a = -1.55596 + 1.01812I$ $b = -0.423358 - 0.977979I$	$1.01578 - 4.23738I$	0
$u = 0.682581 - 0.973399I$ $a = -1.55596 - 1.01812I$ $b = -0.423358 + 0.977979I$	$1.01578 + 4.23738I$	0
$u = -0.737484 + 0.947027I$ $a = -0.255221 + 0.689415I$ $b = 1.108830 + 0.298809I$	$-4.27963 + 4.12596I$	0
$u = -0.737484 - 0.947027I$ $a = -0.255221 - 0.689415I$ $b = 1.108830 - 0.298809I$	$-4.27963 - 4.12596I$	0
$u = 0.449989 + 1.115620I$ $a = 1.04346 - 0.97703I$ $b = -0.474923 + 1.017330I$	$0.54346 + 1.75236I$	0
$u = 0.449989 - 1.115620I$ $a = 1.04346 + 0.97703I$ $b = -0.474923 - 1.017330I$	$0.54346 - 1.75236I$	0
$u = 0.435093 + 0.655870I$ $a = -0.421928 - 0.262313I$ $b = 0.013074 + 0.389178I$	$0.058062 - 1.373770I$	$0.54762 + 4.59641I$
$u = 0.435093 - 0.655870I$ $a = -0.421928 + 0.262313I$ $b = 0.013074 - 0.389178I$	$0.058062 + 1.373770I$	$0.54762 - 4.59641I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.750193 + 0.971797I$ $a = 1.56758 - 0.87634I$ $b = 0.625386 + 1.066570I$	$-1.26633 - 9.05370I$	0
$u = 0.750193 - 0.971797I$ $a = 1.56758 + 0.87634I$ $b = 0.625386 - 1.066570I$	$-1.26633 + 9.05370I$	0
$u = -0.751292 + 0.980442I$ $a = -1.30409 - 1.91476I$ $b = -0.474824 + 1.073280I$	$-6.97127 + 6.31431I$	0
$u = -0.751292 - 0.980442I$ $a = -1.30409 + 1.91476I$ $b = -0.474824 - 1.073280I$	$-6.97127 - 6.31431I$	0
$u = -0.888822 + 0.861156I$ $a = -0.420743 - 0.227554I$ $b = -0.503579 + 0.631395I$	$-8.93127 + 3.93572I$	0
$u = -0.888822 - 0.861156I$ $a = -0.420743 + 0.227554I$ $b = -0.503579 - 0.631395I$	$-8.93127 - 3.93572I$	0
$u = -0.745302 + 1.004020I$ $a = 0.429820 - 0.617085I$ $b = -1.133830 - 0.574421I$	$-6.13711 + 9.23592I$	0
$u = -0.745302 - 1.004020I$ $a = 0.429820 + 0.617085I$ $b = -1.133830 + 0.574421I$	$-6.13711 - 9.23592I$	0
$u = -0.728006 + 1.029620I$ $a = 1.30483 + 1.76760I$ $b = 0.653700 - 1.243700I$	$-1.30783 + 10.33650I$	0
$u = -0.728006 - 1.029620I$ $a = 1.30483 - 1.76760I$ $b = 0.653700 + 1.243700I$	$-1.30783 - 10.33650I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.665608 + 0.272736I$ $a = 0.030085 - 0.514045I$ $b = 0.406144 + 0.846985I$	$-0.11266 - 1.79745I$	$-3.68305 + 3.00636I$
$u = 0.665608 - 0.272736I$ $a = 0.030085 + 0.514045I$ $b = 0.406144 - 0.846985I$	$-0.11266 + 1.79745I$	$-3.68305 - 3.00636I$
$u = -0.852550 + 0.956405I$ $a = 0.320716 - 0.242205I$ $b = -0.414388 - 0.586515I$	$-8.63777 + 2.49143I$	0
$u = -0.852550 - 0.956405I$ $a = 0.320716 + 0.242205I$ $b = -0.414388 + 0.586515I$	$-8.63777 - 2.49143I$	0
$u = -0.749415 + 1.052960I$ $a = -1.33912 - 1.71674I$ $b = -0.77993 + 1.20298I$	$-4.0986 + 16.1013I$	0
$u = -0.749415 - 1.052960I$ $a = -1.33912 + 1.71674I$ $b = -0.77993 - 1.20298I$	$-4.0986 - 16.1013I$	0
$u = 0.633866 + 0.064239I$ $a = -0.737841 - 1.003620I$ $b = -0.712988 + 0.613513I$	$-3.67287 - 1.17347I$	$-10.32734 + 0.68526I$
$u = 0.633866 - 0.064239I$ $a = -0.737841 + 1.003620I$ $b = -0.712988 - 0.613513I$	$-3.67287 + 1.17347I$	$-10.32734 - 0.68526I$
$u = -0.470621 + 0.142712I$ $a = -0.309496 + 0.762972I$ $b = 0.176109 + 1.095200I$	$2.07880 - 2.37441I$	$-0.70861 + 4.00251I$
$u = -0.470621 - 0.142712I$ $a = -0.309496 - 0.762972I$ $b = 0.176109 - 1.095200I$	$2.07880 + 2.37441I$	$-0.70861 - 4.00251I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.0632515$ $a = \quad 10.0652$ $b = \quad 0.518539$	-1.19409	-8.46120

II. $\boldsymbol{I_2^u =}$
$\boldsymbol{\langle -3a^2u+2a^2-4au+7b+5a-u+10,\ a^3-a^2u+2a^2+3au-a+5u,\ u^2-u+1\rangle}$

(i) Arc colorings

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

$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1 \\ u-1 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} a \\ \frac{3}{7}a^2u + \frac{4}{7}au + \cdots - \frac{5}{7}a - \frac{10}{7} \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -u \\ u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} \frac{1}{7}a^2u - \frac{1}{7}au + \cdots + \frac{3}{7}a - \frac{8}{7} \\ \frac{4}{7}a^2u + \frac{3}{7}au + \cdots - \frac{2}{7}a + \frac{3}{7} \end{pmatrix}$$

$$a_4 = \begin{pmatrix} \frac{3}{7}a^2u - \frac{3}{7}au + \cdots + \frac{2}{7}a - \frac{10}{7} \\ \frac{1}{7}a^2u - \frac{1}{7}au + \cdots + \frac{3}{7}a + \frac{6}{7} \end{pmatrix}$$

$$a_5 = \begin{pmatrix} \frac{1}{7}a^2u - \frac{1}{7}au + \cdots + \frac{3}{7}a - \frac{8}{7} \\ \frac{4}{7}a^2u + \frac{3}{7}au + \cdots - \frac{2}{7}a + \frac{3}{7} \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1 \\ u-1 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} \frac{3}{7}a^2u + \frac{4}{7}au + \cdots + \frac{2}{7}a - \frac{10}{7} \\ \frac{3}{7}a^2u + \frac{4}{7}au + \cdots - \frac{5}{7}a - \frac{10}{7} \end{pmatrix}$$

$$a_2 = \begin{pmatrix} \frac{3}{7}a^2u + \frac{4}{7}au + \cdots + \frac{2}{7}a - \frac{10}{7} \\ \frac{3}{7}a^2u + \frac{4}{7}au + \cdots - \frac{5}{7}a - \frac{10}{7} \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{18}{7}a^2u + \frac{2}{7}a^2 - \frac{4}{7}au + \frac{19}{7}a + \frac{62}{7}u - \frac{67}{7}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$(u^3 + u^2 - 1)^2$
c_2, c_6	$(u^3 + u^2 + 2u + 1)^2$
c_3	$(u^3 - u^2 + 2u - 1)^2$
c_4	$(u^3 - u^2 + 1)^2$
c_5, c_8	u^6
c_7, c_{11}	$(u^2 - u + 1)^3$
c_9, c_{10}	$(u^2 + u + 1)^3$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4	$(y^3 - y^2 + 2y - 1)^2$
c_2, c_3, c_6	$(y^3 + 3y^2 + 2y - 1)^2$
c_5, c_8	y^6
c_7, c_9, c_{10} c_{11}	$(y^2 + y + 1)^3$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = \quad 0.500000 + 0.866025I$ $a = -1.46996 + 0.49350I$ $b = -0.569840$	$-1.11345 - 2.02988I$	$-2.22484 + 11.58609I$
$u = \quad 0.500000 + 0.866025I$ $a = \quad 1.11700 - 1.21217I$ $b = -0.215080 + 1.307140I$	$3.02413 + 0.79824I$	$2.65209 - 0.57512I$
$u = \quad 0.500000 + 0.866025I$ $a = -1.14704 + 1.58470I$ $b = -0.215080 - 1.307140I$	$3.02413 - 4.85801I$	$-0.92725 + 3.71146I$
$u = \quad 0.500000 - 0.866025I$ $a = -1.46996 - 0.49350I$ $b = -0.569840$	$-1.11345 + 2.02988I$	$-2.22484 - 11.58609I$
$u = \quad 0.500000 - 0.866025I$ $a = \quad 1.11700 + 1.21217I$ $b = -0.215080 - 1.307140I$	$3.02413 - 0.79824I$	$2.65209 + 0.57512I$
$u = \quad 0.500000 - 0.866025I$ $a = -1.14704 - 1.58470I$ $b = -0.215080 + 1.307140I$	$3.02413 + 4.85801I$	$-0.92725 - 3.71146I$

III. $I_3^u = \langle b,\ -u^3 - 2u^2 + a - 2u,\ u^4 + u^3 + u^2 + 1\rangle$

(i) Arc colorings

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u^3 + 2u^2 + 2u \\ 0 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -u \\ u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} u^3 + 2u^2 + 2u \\ 0 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} u^2 + 1 \\ -u^3 - u^2 - 1 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u^3 \\ u^3 + u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -u^2 - 1 \\ u^3 + u^2 + 1 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} u^3 + u^2 + 2u - 1 \\ u^3 + u^2 + 1 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} u^3 + u^2 + 2u - 1 \\ u^3 + u^2 + 1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 3u^3 + 5u^2 - 8$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$(u-1)^4$
c_2, c_4	$(u+1)^4$
c_3, c_6	u^4
c_5, c_9	$u^4+u^3+3u^2+2u+1$
c_7	$u^4+u^3+u^2+1$
c_8, c_{11}	$u^4-u^3+3u^2-2u+1$
c_{10}	$u^4-u^3+u^2+1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_4	$(y-1)^4$
c_3, c_6	y^4
c_5, c_8, c_9 c_{11}	$y^4+5y^3+7y^2+2y+1$
c_7, c_{10}	$y^4+y^3+3y^2+2y+1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.351808 + 0.720342I$ $a = -0.59074 + 2.34806I$ $b = 0$	$-1.43393 - 1.41510I$	$-11.48794 + 2.21528I$
$u = 0.351808 - 0.720342I$ $a = -0.59074 - 2.34806I$ $b = 0$	$-1.43393 + 1.41510I$	$-11.48794 - 2.21528I$
$u = -0.851808 + 0.911292I$ $a = -0.409261 - 0.055548I$ $b = 0$	$-8.43568 + 3.16396I$	$-4.01206 - 4.08190I$
$u = -0.851808 - 0.911292I$ $a = -0.409261 + 0.055548I$ $b = 0$	$-8.43568 - 3.16396I$	$-4.01206 + 4.08190I$

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u-1)^4)(u^3+u^2-1)^2(u^{71}-7u^{70}+\cdots-19u+1)$
c_2	$((u+1)^4)(u^3+u^2+2u+1)^2(u^{71}+35u^{70}+\cdots+91u+1)$
c_3	$u^4(u^3-u^2+2u-1)^2(u^{71}-3u^{70}+\cdots-72u+16)$
c_4	$((u+1)^4)(u^3-u^2+1)^2(u^{71}-7u^{70}+\cdots-19u+1)$
c_5	$u^6(u^4+u^3+3u^2+2u+1)(u^{71}+2u^{70}+\cdots+224u+64)$
c_6	$u^4(u^3+u^2+2u+1)^2(u^{71}-3u^{70}+\cdots-72u+16)$
c_7	$((u^2-u+1)^3)(u^4+u^3+u^2+1)(u^{71}-5u^{70}+\cdots+16u-1)$
c_8	$u^6(u^4-u^3+3u^2-2u+1)(u^{71}+2u^{70}+\cdots+224u+64)$
c_9	$((u^2+u+1)^3)(u^4+u^3+3u^2+2u+1)(u^{71}-23u^{70}+\cdots+246u+1)$
c_{10}	$((u^2+u+1)^3)(u^4-u^3+u^2+1)(u^{71}-5u^{70}+\cdots+16u-1)$
c_{11}	$((u^2-u+1)^3)(u^4-u^3+3u^2-2u+1)(u^{71}-23u^{70}+\cdots+246u+1)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_4	$((y-1)^4)(y^3 - y^2 + 2y - 1)^2(y^{71} - 35y^{70} + \cdots + 91y - 1)$
c_2	$((y-1)^4)(y^3 + 3y^2 + 2y - 1)^2(y^{71} + 9y^{70} + \cdots + 3279y - 1)$
c_3, c_6	$y^4(y^3 + 3y^2 + 2y - 1)^2(y^{71} + 33y^{70} + \cdots - 4800y - 256)$
c_5, c_8	$y^6(y^4 + 5y^3 + \cdots + 2y + 1)(y^{71} + 40y^{70} + \cdots - 39936y - 4096)$
c_7, c_{10}	$((y^2 + y + 1)^3)(y^4 + y^3 + 3y^2 + 2y + 1)(y^{71} + 23y^{70} + \cdots + 246y - 1)$
c_9, c_{11}	$((y^2 + y + 1)^3)(y^4 + 5y^3 + \cdots + 2y + 1)(y^{71} + 55y^{70} + \cdots + 62490y - 1)$