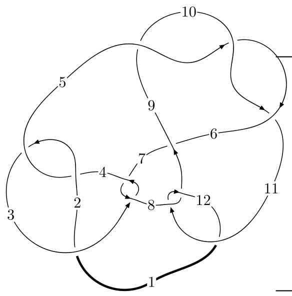
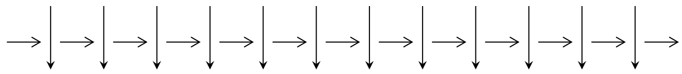
$12n_{0187}$ ($K12n_{0187}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -4.64866\times10^{37}u^{39} - 3.95589\times10^{37}u^{38} + \cdots + 1.60462\times10^{38}b - 1.99553\times10^{38},$$
$$1.25972\times10^{38}u^{39} + 6.09841\times10^{37}u^{38} + \cdots + 3.20923\times10^{38}a + 1.75553\times10^{39},\ u^{40} + 2u^{39} + \cdots + 24u + $$
$$I_2^u = \langle b+1,\ 2u^7 + u^6 - 5u^5 - 2u^4 + 3u^3 + a + 2u + 2,\ u^8 + u^7 - 3u^6 - 2u^5 + 3u^4 + 2u - 1\rangle$$
$$I_3^u = \langle 2a^2 - 2au + b - 4a + 2u + 2,\ 4a^3 - 6a^2u - 12a^2 + 12au + 16a - 7u - 8,\ u^2 - 2\rangle$$

$$I_1^v = \langle a,\ -v^2 + b - 3v + 1,\ v^3 + 2v^2 - 3v + 1\rangle$$

* 4 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 57 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. $\boldsymbol{I^u_1 = \langle -4.65 \times 10^{37}u^{39} - 3.96 \times 10^{37}u^{38} + \cdots + 1.60 \times 10^{38}b - 2.00 \times 10^{38},\ 1.26 \times 10^{38}u^{39} + 6.10 \times 10^{37}u^{38} + \cdots + 3.21 \times 10^{38}a + 1.76 \times 10^{39},\ u^{40} + 2u^{39} + \cdots + 24u + 8\rangle}$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -0.392531u^{39} - 0.190027u^{38} + \cdots - 31.7178u - 5.47024 \\ 0.289705u^{39} + 0.246532u^{38} + \cdots + 3.47362u + 1.24362 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -0.102825u^{39} + 0.0565047u^{38} + \cdots - 28.2442u - 4.22662 \\ 0.289705u^{39} + 0.246532u^{38} + \cdots + 3.47362u + 1.24362 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 0.0112960u^{39} + 0.165138u^{38} + \cdots - 6.59349u + 0.402568 \\ -0.409908u^{39} - 0.550903u^{38} + \cdots - 7.68190u - 4.87982 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -0.356445u^{39} - 0.0512403u^{38} + \cdots - 27.2073u - 3.79706 \\ -0.499643u^{39} - 0.495583u^{38} + \cdots - 9.08353u - 4.38695 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -u^4 + u^2 + 1 \\ -u^4 + 2u^2 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -0.0519172u^{39} + 0.0642471u^{38} + \cdots - 8.35273u - 0.669722 \\ 0.130286u^{39} + 0.294618u^{38} + \cdots + 2.41118u + 2.66716 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -0.0519172u^{39} + 0.0642471u^{38} + \cdots - 8.35273u - 0.669722 \\ -0.358582u^{39} - 0.442506u^{38} + \cdots - 6.02980u - 4.01181 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 6.32861u^{39} + 4.79660u^{38} + \cdots + 0.992255u + 10.7532$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{40} + 4u^{39} + \cdots + 2u + 1$
c_2, c_4	$u^{40} - 12u^{39} + \cdots + 2u + 1$
c_3, c_7	$u^{40} + 2u^{39} + \cdots + 1408u - 256$
c_5, c_9, c_{10}	$u^{40} + 2u^{39} + \cdots + 24u + 8$
c_6	$u^{40} - 6u^{39} + \cdots + 4248u + 1192$
c_8, c_{11}	$u^{40} + 5u^{39} + \cdots + 49u + 7$
c_{12}	$u^{40} + 9u^{39} + \cdots - 63u + 49$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{40} + 76y^{39} + \cdots - 2330y + 1$
c_2, c_4	$y^{40} - 4y^{39} + \cdots - 2y + 1$
c_3, c_7	$y^{40} + 60y^{39} + \cdots - 4636672y + 65536$
c_5, c_9, c_{10}	$y^{40} - 32y^{39} + \cdots - 1728y + 64$
c_6	$y^{40} + 64y^{39} + \cdots - 52489536y + 1420864$
c_8, c_{11}	$y^{40} - 9y^{39} + \cdots + 63y + 49$
c_{12}	$y^{40} + 55y^{39} + \cdots - 206241y + 2401$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.897120 + 0.222335I$ $a = -1.274740 - 0.263007I$ $b = -1.187560 + 0.291372I$	$-3.03578 - 0.99249I$	$-14.4826 + 4.2079I$
$u = 0.897120 - 0.222335I$ $a = -1.274740 + 0.263007I$ $b = -1.187560 - 0.291372I$	$-3.03578 + 0.99249I$	$-14.4826 - 4.2079I$
$u = -0.771034 + 0.454110I$ $a = -0.157593 - 0.131539I$ $b = 0.140691 + 0.765731I$	$0.072412 - 0.256498I$	$-11.04074 - 0.73471I$
$u = -0.771034 - 0.454110I$ $a = -0.157593 + 0.131539I$ $b = 0.140691 - 0.765731I$	$0.072412 + 0.256498I$	$-11.04074 + 0.73471I$
$u = 0.215830 + 1.094140I$ $a = -0.14903 - 1.49112I$ $b = 1.21980 + 1.09723I$	$13.1415 - 8.3613I$	$-10.09689 + 4.44612I$
$u = 0.215830 - 1.094140I$ $a = -0.14903 + 1.49112I$ $b = 1.21980 - 1.09723I$	$13.1415 + 8.3613I$	$-10.09689 - 4.44612I$
$u = 0.214868 + 0.849389I$ $a = 0.456922 - 1.112210I$ $b = 0.092951 + 0.975052I$	$3.63859 + 0.81418I$	$-7.43543 - 0.73577I$
$u = 0.214868 - 0.849389I$ $a = 0.456922 + 1.112210I$ $b = 0.092951 - 0.975052I$	$3.63859 - 0.81418I$	$-7.43543 + 0.73577I$
$u = -1.068280 + 0.375203I$ $a = -1.15584 - 1.32730I$ $b = -1.241440 + 0.388080I$	$-2.92773 + 3.67752I$	$-14.1570 - 3.8873I$
$u = -1.068280 - 0.375203I$ $a = -1.15584 + 1.32730I$ $b = -1.241440 - 0.388080I$	$-2.92773 - 3.67752I$	$-14.1570 + 3.8873I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.055954 + 1.139480I$ $a = -0.510868 + 1.235600I$ $b = 1.05505 - 1.26055I$	$13.77200 + 0.23648I$	$-9.35233 + 0.10077I$
$u = 0.055954 - 1.139480I$ $a = -0.510868 - 1.235600I$ $b = 1.05505 + 1.26055I$	$13.77200 - 0.23648I$	$-9.35233 - 0.10077I$
$u = -0.834687 + 0.181028I$ $a = 0.008249 + 1.189290I$ $b = 0.893530 - 0.929162I$	$0.56575 + 3.31942I$	$-15.0343 - 3.7698I$
$u = -0.834687 - 0.181028I$ $a = 0.008249 - 1.189290I$ $b = 0.893530 + 0.929162I$	$0.56575 - 3.31942I$	$-15.0343 + 3.7698I$
$u = -1.298310 + 0.059006I$ $a = 1.144330 + 0.058961I$ $b = 0.832938 - 0.605919I$	$-1.84528 + 2.59969I$	$-12.00000 - 2.54541I$
$u = -1.298310 - 0.059006I$ $a = 1.144330 - 0.058961I$ $b = 0.832938 + 0.605919I$	$-1.84528 - 2.59969I$	$-12.00000 + 2.54541I$
$u = 1.212760 + 0.510150I$ $a = -0.356611 + 0.737488I$ $b = -0.343875 - 1.008720I$	$0.58084 - 5.79218I$	$-12.00000 + 5.32251I$
$u = 1.212760 - 0.510150I$ $a = -0.356611 - 0.737488I$ $b = -0.343875 + 1.008720I$	$0.58084 + 5.79218I$	$-12.00000 - 5.32251I$
$u = 1.341590 + 0.066077I$ $a = 1.157320 - 0.440885I$ $b = 0.011549 + 0.213669I$	$-6.40298 - 0.09411I$	$-12.00000 + 0.I$
$u = 1.341590 - 0.066077I$ $a = 1.157320 + 0.440885I$ $b = 0.011549 - 0.213669I$	$-6.40298 + 0.09411I$	$-12.00000 + 0.I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.344310 + 0.274263I$ $a = 1.203800 - 0.373288I$ $b = 0.758510 + 0.290373I$	$-3.47032 - 7.09799I$	0
$u = 1.344310 - 0.274263I$ $a = 1.203800 + 0.373288I$ $b = 0.758510 - 0.290373I$	$-3.47032 + 7.09799I$	0
$u = -0.187892 + 0.587668I$ $a = 0.380383 + 0.661515I$ $b = 0.724223 - 0.526726I$	$1.29420 + 3.83935I$	$-7.67979 - 8.27282I$
$u = -0.187892 - 0.587668I$ $a = 0.380383 - 0.661515I$ $b = 0.724223 + 0.526726I$	$1.29420 - 3.83935I$	$-7.67979 + 8.27282I$
$u = -1.40352$ $a = 13.1227$ $b = -0.992359$	-8.20369	-295.210
$u = 1.217640 + 0.701085I$ $a = -0.398099 + 0.182880I$ $b = 1.08177 - 1.20718I$	$10.13750 + 2.10810I$	0
$u = 1.217640 - 0.701085I$ $a = -0.398099 - 0.182880I$ $b = 1.08177 + 1.20718I$	$10.13750 - 2.10810I$	0
$u = -1.41252 + 0.12831I$ $a = 0.979228 + 0.146823I$ $b = 0.678609 - 0.746967I$	$-1.77463 + 2.63558I$	0
$u = -1.41252 - 0.12831I$ $a = 0.979228 - 0.146823I$ $b = 0.678609 + 0.746967I$	$-1.77463 - 2.63558I$	0
$u = 1.46431$ $a = 0.581453$ $b = -0.422164$	-6.89614	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.35026 + 0.61000I$ $a = 0.81792 - 1.16224I$ $b = 1.17901 + 1.12040I$	$9.78004 - 6.39860I$	0
$u = 1.35026 - 0.61000I$ $a = 0.81792 + 1.16224I$ $b = 1.17901 - 1.12040I$	$9.78004 + 6.39860I$	0
$u = -0.314968 + 0.399432I$ $a = 1.012740 + 0.763059I$ $b = -0.781356 - 0.355549I$	$-0.815291 - 0.298544I$	$-10.56718 - 0.99043I$
$u = -0.314968 - 0.399432I$ $a = 1.012740 - 0.763059I$ $b = -0.781356 + 0.355549I$	$-0.815291 + 0.298544I$	$-10.56718 + 0.99043I$
$u = -1.42513 + 0.56145I$ $a = -0.492105 - 0.012487I$ $b = 0.86996 + 1.29131I$	$9.15481 + 5.80967I$	0
$u = -1.42513 - 0.56145I$ $a = -0.492105 + 0.012487I$ $b = 0.86996 - 1.29131I$	$9.15481 - 5.80967I$	0
$u = -1.47346 + 0.47082I$ $a = 1.11672 + 1.20821I$ $b = 1.24799 - 0.96895I$	$7.7860 + 13.9558I$	0
$u = -1.47346 - 0.47082I$ $a = 1.11672 - 1.20821I$ $b = 1.24799 + 0.96895I$	$7.7860 - 13.9558I$	0
$u = -0.427942$ $a = 0.826467$ $b = -0.164518$	-0.684223	-14.1610
$u = 0.239037$ $a = -13.0961$ $b = -0.885633$	-2.91744	-60.2580

II. $\boldsymbol{I_2^u =}$
$\boldsymbol{\langle b+1,\ 2u^7+u^6-5u^5-2u^4+3u^3+a+2u+2,\ u^8+u^7-3u^6-2u^5+3u^4+2u-1\rangle}$

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -4u^7 + u^6 + 10u^5 - 3u^4 - 6u^3 + 2u^2 - 4u - 11$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_4	$(y-1)^8$
c_3, c_7	y^8
c_5, c_9, c_{10}	$y^8 - 7y^7 + 19y^6 - 22y^5 + 3y^4 + 14y^3 - 6y^2 - 4y + 1$
c_6, c_{12}	$y^8 + 5y^7 + 11y^6 + 6y^5 - 17y^4 - 34y^3 - 22y^2 - 4y + 1$
c_8, c_{11}	$y^8 - 3y^7 + 7y^6 - 10y^5 + 11y^4 - 10y^3 + 6y^2 - 4y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.180120 + 0.268597I$ $a = -0.914310 + 0.514779I$ $b = -1.00000$	$-2.68559 - 1.13123I$	$-13.44913 - 0.23763I$
$u = 1.180120 - 0.268597I$ $a = -0.914310 - 0.514779I$ $b = -1.00000$	$-2.68559 + 1.13123I$	$-13.44913 + 0.23763I$
$u = 0.108090 + 0.747508I$ $a = 0.036111 + 0.260696I$ $b = -1.00000$	$0.51448 - 2.57849I$	$-10.29693 + 2.50491I$
$u = 0.108090 - 0.747508I$ $a = 0.036111 - 0.260696I$ $b = -1.00000$	$0.51448 + 2.57849I$	$-10.29693 - 2.50491I$
$u = -1.37100$ $a = 2.88842$ $b = -1.00000$	-8.14766	-2.27260
$u = -1.334530 + 0.318930I$ $a = -1.043070 - 0.634428I$ $b = -1.00000$	$-4.02461 + 6.44354I$	$-17.1399 - 2.7122I$
$u = -1.334530 - 0.318930I$ $a = -1.043070 + 0.634428I$ $b = -1.00000$	$-4.02461 - 6.44354I$	$-17.1399 + 2.7122I$
$u = 0.463640$ $a = -3.04588$ $b = -1.00000$	-2.48997	-12.9560

III.

$\boldsymbol{I_3^u = \langle 2a^2-2au+b-4a+2u+2,\ 4a^3-6a^2u-12a^2+12au+16a-7u-8,\ u^2-2\rangle}$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_6 = \begin{pmatrix} 1 \\ 2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} a \\ -2a^2 + 2au + 4a - 2u - 2 \end{pmatrix}$$

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

$$a_2 = \begin{pmatrix} -2a^2 + 2au + 5a - 2u - 2 \\ -2a^2 + 2au + 4a - 2u - 2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -au + \frac{3}{2}u + 2 \\ -au + u + 2 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} a^2u + 4a^2 - 7au - 10a + \frac{13}{2}u + 8 \\ 2a^2 - 3au - 4a + 3u + 3 \end{pmatrix}$$

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

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

$$a_8 = \begin{pmatrix} -au + \frac{3}{2}u + 2 \\ -au + u + 2 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -au + \frac{1}{2}u + 2 \\ -au + 2 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -8a^2 + 8au + 16a - 8u - 28$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7	$(u^3 - u^2 + 2u - 1)^2$
c_2	$(u^3 + u^2 - 1)^2$
c_3	$(u^3 + u^2 + 2u + 1)^2$
c_4	$(u^3 - u^2 + 1)^2$
c_5, c_6, c_9 c_{10}	$(u^2 - 2)^3$
c_8, c_{12}	$(u + 1)^6$
c_{11}	$(u - 1)^6$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3, c_7	$(y^3+3y^2+2y-1)^2$
c_2, c_4	$(y^3-y^2+2y-1)^2$
c_5, c_6, c_9 c_{10}	$(y-2)^6$
c_8, c_{11}, c_{12}	$(y-1)^6$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.41421$ $a = 1.238750 + 0.397592I$ $b = 0.877439 + 0.744862I$	$-3.55561 - 2.82812I$	$-16.4902 + 2.9794I$
$u = 1.41421$ $a = 1.238750 - 0.397592I$ $b = 0.877439 - 0.744862I$	$-3.55561 + 2.82812I$	$-16.4902 - 2.9794I$
$u = 1.41421$ $a = 2.64382$ $b = -0.754878$	-7.69319	-23.0200
$u = -1.41421$ $a = 0.761252 + 0.397592I$ $b = 0.877439 - 0.744862I$	$-3.55561 + 2.82812I$	$-16.4902 - 2.9794I$
$u = -1.41421$ $a = 0.761252 - 0.397592I$ $b = 0.877439 + 0.744862I$	$-3.55561 - 2.82812I$	$-16.4902 + 2.9794I$
$u = -1.41421$ $a = -0.643824$ $b = -0.754878$	-7.69319	-23.0200

IV. $\boldsymbol{I_1^v = \langle a,\ -v^2 + b - 3v + 1,\ v^3 + 2v^2 - 3v + 1\rangle}$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} v \\ 0 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} 0 \\ v^2 + 3v - 1 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} v \\ 0 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} v^2 + 3v - 1 \\ v^2 + 3v - 1 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} v^2 + 3v - 1 \\ -v^2 - 2v + 3 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -2v^2 - 5v + 4 \\ -2v^2 - 5v + 3 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} v \\ 0 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -v^2 - 3v + 1 \\ v^2 + 2v - 3 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} v^2 + 4v - 1 \\ -v^2 - 2v + 3 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -2v - 6$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_3	$u^3 - u^2 + 2u - 1$
c_2	$u^3 + u^2 - 1$
c_4	$u^3 - u^2 + 1$
c_5, c_6, c_9 c_{10}	u^3
c_7	$u^3 + u^2 + 2u + 1$
c_8	$(u-1)^3$
c_{11}, c_{12}	$(u+1)^3$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3, c_7	$y^3 + 3y^2 + 2y - 1$
c_2, c_4	$y^3 - y^2 + 2y - 1$
c_5, c_6, c_9 c_{10}	y^3
c_8, c_{11}, c_{12}	$(y-1)^3$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^v	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$v = 0.539798 + 0.182582I$ $a = 0$ $b = 0.877439 + 0.744862I$	$1.37919 - 2.82812I$	$-7.07960 - 0.36516I$
$v = 0.539798 - 0.182582I$ $a = 0$ $b = 0.877439 - 0.744862I$	$1.37919 + 2.82812I$	$-7.07960 + 0.36516I$
$v = -3.07960$ $a = 0$ $b = -0.754878$	-2.75839	0.159190

V. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u-1)^8)(u^3-u^2+2u-1)^3(u^{40}+4u^{39}+\cdots+2u+1)$
c_2	$((u-1)^8)(u^3+u^2-1)^3(u^{40}-12u^{39}+\cdots+2u+1)$
c_3	$u^8(u^3-u^2+2u-1)(u^3+u^2+2u+1)^2$ $\cdot(u^{40}+2u^{39}+\cdots+1408u-256)$
c_4	$((u+1)^8)(u^3-u^2+1)^3(u^{40}-12u^{39}+\cdots+2u+1)$
c_5	$u^3(u^2-2)^3(u^8+u^7-3u^6-2u^5+3u^4+2u-1)$ $\cdot(u^{40}+2u^{39}+\cdots+24u+8)$
c_6	$u^3(u^2-2)^3(u^8-3u^7+7u^6-10u^5+11u^4-10u^3+6u^2-4u+1)$ $\cdot(u^{40}-6u^{39}+\cdots+4248u+1192)$
c_7	$u^8(u^3-u^2+2u-1)^2(u^3+u^2+2u+1)$ $\cdot(u^{40}+2u^{39}+\cdots+1408u-256)$
c_8	$(u-1)^3(u+1)^6(u^8-u^7-u^6+2u^5+u^4-2u^3+2u-1)$ $\cdot(u^{40}+5u^{39}+\cdots+49u+7)$
c_9, c_{10}	$u^3(u^2-2)^3(u^8-u^7-3u^6+2u^5+3u^4-2u-1)$ $\cdot(u^{40}+2u^{39}+\cdots+24u+8)$
c_{11}	$(u-1)^6(u+1)^3(u^8+u^7-u^6-2u^5+u^4+2u^3-2u-1)$ $\cdot(u^{40}+5u^{39}+\cdots+49u+7)$
c_{12}	$(u+1)^9(u^8+3u^7+7u^6+10u^5+11u^4+10u^3+6u^2+4u+1)$ $\cdot(u^{40}+9u^{39}+\cdots-63u+49)$

VI. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y-1)^8)(y^3+3y^2+2y-1)^3(y^{40}+76y^{39}+\cdots-2330y+1)$
c_2, c_4	$((y-1)^8)(y^3-y^2+2y-1)^3(y^{40}-4y^{39}+\cdots-2y+1)$
c_3, c_7	$y^8(y^3+3y^2+2y-1)^3(y^{40}+60y^{39}+\cdots-4636672y+65536)$
c_5, c_9, c_{10}	$y^3(y-2)^6(y^8-7y^7+19y^6-22y^5+3y^4+14y^3-6y^2-4y+1)$ $\cdot(y^{40}-32y^{39}+\cdots-1728y+64)$
c_6	$y^3(y-2)^6(y^8+5y^7+11y^6+6y^5-17y^4-34y^3-22y^2-4y+1)$ $\cdot(y^{40}+64y^{39}+\cdots-52489536y+1420864)$
c_8, c_{11}	$(y-1)^9(y^8-3y^7+7y^6-10y^5+11y^4-10y^3+6y^2-4y+1)$ $\cdot(y^{40}-9y^{39}+\cdots+63y+49)$
c_{12}	$(y-1)^9(y^8+5y^7+11y^6+6y^5-17y^4-34y^3-22y^2-4y+1)$ $\cdot(y^{40}+55y^{39}+\cdots-206241y+2401)$