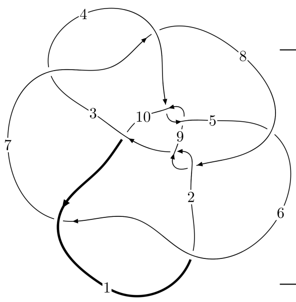
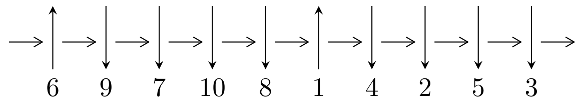
10_{98} $(K10a_{96})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u = \langle &-4789953u^{11} + 15314376u^{10} + \cdots + 93424488b + 9873021, \\
&- 16446192u^{11} + 38491161u^{10} + \cdots + 23356220a + 2924955, \\
&3u^{12} - 9u^{11} + 22u^{10} - 42u^9 + 70u^8 - 110u^7 + 139u^6 - 157u^5 + 149u^4 - 106u^3 + 64u^2 - 20u + 5\rangle \\
I_2^u = \langle &-u^9 - u^8 - 3u^7 - 3u^6 - 5u^5 - 5u^4 - u^2a - 4u^3 - 4u^2 + b - a - 3u - 2,\ 6u^9a - 3u^9 + \cdots + 6a - 7, \\
&u^{10} + u^9 + 3u^8 + 3u^7 + 5u^6 + 5u^5 + 4u^4 + 4u^3 + 3u^2 + 2u + 1\rangle \\
I_3^u = \langle &b + u,\ 2a - u - 1,\ u^2 + 1\rangle \\
I_4^u = \langle &b,\ a - 1,\ u^3 + u - 1\rangle \\
I_5^u = \langle &b - 1,\ a - u - 1,\ u^3 + u - 1\rangle \\
I_6^u = \langle &b - 1,\ u^3a - u^3 + au - 2u - 1\rangle
\end{aligned}$$

* 5 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 40 representations.
* 1 irreducible components of $\dim_{\mathbb{C}} = 1$

[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.

$\boldsymbol{I^u_1 = \langle -4.79\times10^6u^{11} + 1.53\times10^7u^{10} + \cdots + 9.34\times10^6b + 9.87\times10^6,\ -1.64\times10^7u^{11} + 3.85\times10^7u^{10} + \cdots + 2.34\times10^7a + 2.92\times10^6,\ 3u^{12} - 9u^{11} + \cdots - 20u + 5\rangle}$

(i) Arc colorings

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

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

$$a_5 = \begin{pmatrix}1\\u^2\end{pmatrix}$$

$$a_7 = \begin{pmatrix}0.704146u^{11} - 1.64800u^{10} + \cdots + 5.67136u - 0.125232\\0.512706u^{11} - 1.63922u^{10} + \cdots + 5.56042u - 1.05679\end{pmatrix}$$

$$a_8 = \begin{pmatrix}0.191440u^{11} - 0.00878657u^{10} + \cdots + 0.110936u + 0.931555\\0.512706u^{11} - 1.63922u^{10} + \cdots + 5.56042u - 1.05679\end{pmatrix}$$

$$a_3 = \begin{pmatrix}0.0685395u^{11} - 0.0742645u^{10} + \cdots - 2.54876u + 1.65234\\-0.524747u^{11} + 1.36714u^{10} + \cdots - 1.44636u + 0.100143\end{pmatrix}$$

$$a_1 = \begin{pmatrix}-0.159552u^{11} + 0.582496u^{10} + \cdots - 1.27370u - 0.346141\\0.514632u^{11} - 1.19725u^{10} + \cdots + 3.19361u - 0.462234\end{pmatrix}$$

$$a_6 = \begin{pmatrix}0.173499u^{11} - 0.281506u^{10} + \cdots + 1.01679u + 1.07875\\0.0278643u^{11} - 0.396636u^{10} + \cdots + 2.71393u - 0.664239\end{pmatrix}$$

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

$$a_2 = \begin{pmatrix}0.169639u^{11} - 0.151768u^{10} + \cdots - 4.91002u + 2.50685\\-0.477984u^{11} + 1.17054u^{10} + \cdots - 2.47082u + 0.578331\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= \frac{4958289}{2335622}u^{11} - \frac{5676297}{1167811}u^{10} + \cdots + \frac{80416785}{2335622}u - \frac{35331855}{2335622}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_6	$3(3u^{12} + 9u^{11} + \cdots + 26u + 5)$
c_2, c_3, c_7 c_8	$u^{12} - 2u^{11} + u^9 + 3u^7 + u^6 - 15u^5 + 21u^4 - 14u^3 + 3u^2 + u + 2$
c_4, c_9	$3(3u^{12} + 9u^{11} + \cdots + 20u + 5)$
c_5, c_{10}	$2(2u^{12} - 4u^{11} + \cdots + 12u + 3)$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$9(9y^{12} + 87y^{11} + \cdots - 16y + 25)$
c_2, c_3, c_7 c_8	$y^{12} - 4y^{11} + \cdots + 11y + 4$
c_4, c_9	$9(9y^{12} + 51y^{11} + \cdots + 240y + 25)$
c_5, c_{10}	$4(4y^{12} - 20y^{11} + \cdots - 30y + 9)$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.294163 + 0.893263I$ $a = -0.392558 + 0.428484I$ $b = 0.312276 - 1.374800I$	$0.93953 - 1.28267I$	$-9.97159 + 5.49540I$
$u = 0.294163 - 0.893263I$ $a = -0.392558 - 0.428484I$ $b = 0.312276 + 1.374800I$	$0.93953 + 1.28267I$	$-9.97159 - 5.49540I$
$u = -0.132310 + 1.149860I$ $a = -0.019852 + 0.332765I$ $b = -0.435810 - 0.817904I$	$3.72744 - 0.65506I$	$0.96539 + 2.36054I$
$u = -0.132310 - 1.149860I$ $a = -0.019852 - 0.332765I$ $b = -0.435810 + 0.817904I$	$3.72744 + 0.65506I$	$0.96539 - 2.36054I$
$u = 1.258330 + 0.213822I$ $a = -1.45041 + 0.16116I$ $b = -1.325110 + 0.371579I$	$-10.52620 + 7.73722I$	$-13.2705 - 5.1580I$
$u = 1.258330 - 0.213822I$ $a = -1.45041 - 0.16116I$ $b = -1.325110 - 0.371579I$	$-10.52620 - 7.73722I$	$-13.2705 + 5.1580I$
$u = -0.77981 + 1.24219I$ $a = -1.28771 - 0.68411I$ $b = -1.170890 + 0.448059I$	$-1.38664 + 8.65525I$	$-8.05360 - 7.75821I$
$u = -0.77981 - 1.24219I$ $a = -1.28771 + 0.68411I$ $b = -1.170890 - 0.448059I$	$-1.38664 - 8.65525I$	$-8.05360 + 7.75821I$
$u = 0.66776 + 1.32565I$ $a = 1.16439 - 0.95583I$ $b = 1.36378 + 0.57208I$	$-7.0244 - 14.4129I$	$-10.01184 + 7.82077I$
$u = 0.66776 - 1.32565I$ $a = 1.16439 + 0.95583I$ $b = 1.36378 - 0.57208I$	$-7.0244 + 14.4129I$	$-10.01184 - 7.82077I$

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$0.191864+0.381263I$		
$a=$	$0.986139+0.917994I$	$-0.534161-1.008590I$	$-7.65789+6.71362I$
$b=$	$0.255755+0.338417I$		
$u=$	$0.191864-0.381263I$		
$a=$	$0.986139-0.917994I$	$-0.534161+1.008590I$	$-7.65789-6.71362I$
$b=$	$0.255755-0.338417I$		

II.
$$\boldsymbol{I_2^u = \langle -u^9 - u^8 + \cdots - a - 2,\ 6u^9 a - 3u^9 + \cdots + 6a - 7,\ u^{10} + u^9 + \cdots + 2u + 1\rangle}$$

(i) Arc colorings

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

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -4u^9 - 4u^8 - 8u^7 - 8u^6 - 8u^5 - 12u^4 - 4u^2 - 4u - 10$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_6	$(u^{10} - u^9 + 5u^8 - 5u^7 + 9u^6 - 9u^5 + 6u^4 - 6u^3 + u^2 + 1)^2$
c_2, c_3, c_7 c_8	$u^{20} - 2u^{19} + \cdots - 58u + 31$
c_4, c_9	$(u^{10} - u^9 + 3u^8 - 3u^7 + 5u^6 - 5u^5 + 4u^4 - 4u^3 + 3u^2 - 2u + 1)^2$
c_5, c_{10}	$2(2u^{20} - 13u^{18} + \cdots - 518u + 121)$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$(y^{10}+9y^9+33y^8+59y^7+41y^6-21y^5-44y^4-6y^3+13y^2+2y+1)^2$
c_2, c_3, c_7 c_8	$y^{20}-14y^{19}+\cdots-388y+961$
c_4, c_9	$(y^{10}+5y^9+13y^8+19y^7+17y^6+7y^5-2y^3+y^2+2y+1)^2$
c_5, c_{10}	$4(4y^{20}-52y^{19}+\cdots-56574y+14641)$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.584958 + 0.771492I$ $a = -0.759755 + 0.346084I$ $b = -1.50393 + 0.39581I$	$-8.22706 - 2.31006I$	$-12.86369 + 3.52133I$
$u = 0.584958 + 0.771492I$ $a = 0.94152 - 1.29105I$ $b = 1.24454 + 0.70845I$	$-8.22706 - 2.31006I$	$-12.86369 + 3.52133I$
$u = 0.584958 - 0.771492I$ $a = -0.759755 - 0.346084I$ $b = -1.50393 - 0.39581I$	$-8.22706 + 2.31006I$	$-12.86369 - 3.52133I$
$u = 0.584958 - 0.771492I$ $a = 0.94152 + 1.29105I$ $b = 1.24454 - 0.70845I$	$-8.22706 + 2.31006I$	$-12.86369 - 3.52133I$
$u = -0.248527 + 0.782547I$ $a = 2.10247 - 0.40028I$ $b = 1.157780 + 0.163121I$	$-2.84181 + 1.23169I$	$-7.09823 - 5.44908I$
$u = -0.248527 + 0.782547I$ $a = -0.73260 - 2.58251I$ $b = -0.965077 + 0.285214I$	$-2.84181 + 1.23169I$	$-7.09823 - 5.44908I$
$u = -0.248527 - 0.782547I$ $a = 2.10247 + 0.40028I$ $b = 1.157780 - 0.163121I$	$-2.84181 - 1.23169I$	$-7.09823 + 5.44908I$
$u = -0.248527 - 0.782547I$ $a = -0.73260 + 2.58251I$ $b = -0.965077 - 0.285214I$	$-2.84181 - 1.23169I$	$-7.09823 + 5.44908I$
$u = -0.761643 + 0.208049I$ $a = -0.670419 + 0.201639I$ $b = 0.255380 + 0.856092I$	$-5.70347 - 3.47839I$	$-11.19503 + 2.79515I$
$u = -0.761643 + 0.208049I$ $a = -1.53048 - 0.72472I$ $b = -1.359950 - 0.294980I$	$-5.70347 - 3.47839I$	$-11.19503 + 2.79515I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.761643-0.208049I$ $a=-0.670419-0.201639I$ $b=\ \ 0.255380-0.856092I$	$-5.70347+3.47839I$	$-11.19503-2.79515I$
$u=-0.761643-0.208049I$ $a=-1.53048+0.72472I$ $b=-1.359950+0.294980I$	$-5.70347+3.47839I$	$-11.19503-2.79515I$
$u=\ \ 0.449566+1.164790I$ $a=-1.032640+0.923920I$ $b=-1.096360-0.477116I$	$1.58679-4.14585I$	$-3.01866+3.97600I$
$u=\ \ 0.449566+1.164790I$ $a=\ \ 0.0061280-0.0919696I$ $b=-0.193027+0.767853I$	$1.58679-4.14585I$	$-3.01866+3.97600I$
$u=\ \ 0.449566-1.164790I$ $a=-1.032640-0.923920I$ $b=-1.096360+0.477116I$	$1.58679+4.14585I$	$-3.01866-3.97600I$
$u=\ \ 0.449566-1.164790I$ $a=\ \ 0.0061280+0.0919696I$ $b=-0.193027-0.767853I$	$1.58679+4.14585I$	$-3.01866-3.97600I$
$u=-0.524355+1.163410I$ $a=\ \ 1.040500+0.946543I$ $b=\ \ 1.39510-0.62944I$	$-2.90872+8.28632I$	$-7.82440-6.14881I$
$u=-0.524355+1.163410I$ $a=-0.364738-0.233686I$ $b=\ \ 0.065535+1.177790I$	$-2.90872+8.28632I$	$-7.82440-6.14881I$
$u=-0.524355-1.163410I$ $a=\ \ 1.040500-0.946543I$ $b=\ \ 1.39510+0.62944I$	$-2.90872-8.28632I$	$-7.82440+6.14881I$
$u=-0.524355-1.163410I$ $a=-0.364738+0.233686I$ $b=\ \ 0.065535-1.177790I$	$-2.90872-8.28632I$	$-7.82440+6.14881I$

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

(i) Arc colorings

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

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

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

$$a_7 = \begin{pmatrix}\frac{1}{2}u+\frac{1}{2}\\-u\end{pmatrix}$$

$$a_8 = \begin{pmatrix}\frac{3}{2}u+\frac{1}{2}\\-u\end{pmatrix}$$

$$a_3 = \begin{pmatrix}\frac{1}{2}u+\frac{1}{2}\\1\end{pmatrix}$$

$$a_1 = \begin{pmatrix}0.5\\\frac{1}{2}u+\frac{1}{2}\end{pmatrix}$$

$$a_6 = \begin{pmatrix}u+\frac{1}{2}\\-\frac{1}{2}u-\frac{1}{2}\end{pmatrix}$$

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

$$a_2 = \begin{pmatrix}\frac{1}{2}u-\frac{1}{2}\\1\end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -4$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

	Solutions to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u =$	$1.000000I$		
$a =$	$0.500000 + 0.500000I$	1.64493	−4.00000
$b =$	$-\ 1.000000I$		
$u =$	$-\ 1.000000I$		
$a =$	$0.500000 - 0.500000I$	1.64493	−4.00000
$b =$	$1.000000I$		

IV. $I_4^u = \langle b,\ a-1,\ u^3+u-1\rangle$

(i) Arc colorings

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

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -6$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_4^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.341164 + 1.161540I$ $a = \quad 1.00000$ $b = \quad 0$	-1.64493	-6.00000
$u = -0.341164 - 1.161540I$ $a = \quad 1.00000$ $b = \quad 0$	-1.64493	-6.00000
$u = \quad 0.682328$ $a = \quad 1.00000$ $b = \quad 0$	-1.64493	-6.00000

V. $I_5^u = \langle b-1,\ a-u-1,\ u^3+u-1\rangle$

(i) Arc colorings

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

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

$$a_5 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} u+1 \\ 1 \end{pmatrix}$$

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

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

$$a_1 = \begin{pmatrix} u-1 \\ -u^2+u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} u^2+1 \\ u^2+u \end{pmatrix}$$

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

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

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -6$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_5^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.341164 + 1.161540I$ $a = 0.658836 + 1.161540I$ $b = 1.00000$	-1.64493	-6.00000
$u = -0.341164 - 1.161540I$ $a = 0.658836 - 1.161540I$ $b = 1.00000$	-1.64493	-6.00000
$u = 0.682328$ $a = 1.68233$ $b = 1.00000$	-1.64493	-6.00000

VI. $I_6^u = \langle b-1,\ u^3a - u^3 + au - 2u - 1\rangle$

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -12$

(iv) u-Polynomials at the component : It cannot be defined for a positive dimension component.

(v) Riley Polynomials at the component : It cannot be defined for a positive dimension component.

(iv) Complex Volumes and Cusp Shapes

Solution to I_6^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = \cdots$ $a = \cdots$ $b = \cdots$	-3.28987	-12.0000

VII. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_6	$3(u^2+1)(u^3+u+1)^2$ $\cdot\,(u^{10}-u^9+5u^8-5u^7+9u^6-9u^5+6u^4-6u^3+u^2+1)^2$ $\cdot\,(3u^{12}+9u^{11}+\cdots+26u+5)$
c_2, c_3, c_7 c_8	$u^3(u+1)^3(u^2+1)$ $\cdot\,(u^{12}-2u^{11}+u^9+3u^7+u^6-15u^5+21u^4-14u^3+3u^2+u+2)$ $\cdot\,(u^{20}-2u^{19}+\cdots-58u+31)$
c_4, c_9	$3(u^2+1)(u^3+u+1)^2$ $\cdot\,(u^{10}-u^9+3u^8-3u^7+5u^6-5u^5+4u^4-4u^3+3u^2-2u+1)^2$ $\cdot\,(3u^{12}+9u^{11}+\cdots+20u+5)$
c_5, c_{10}	$8(2u^2-2u+1)(u^3+u+1)(u^3+2u^2+u-1)(2u^{12}-4u^{11}+\cdots+12u+3)$ $\cdot\,(2u^{20}-13u^{18}+\cdots-518u+121)$

VIII. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_6	$9(y+1)^2(y^3+2y^2+y-1)^2$ $\cdot\,(y^{10}+9y^9+33y^8+59y^7+41y^6-21y^5-44y^4-6y^3+13y^2+2y+1)^2$ $\cdot\,(9y^{12}+87y^{11}+\cdots-16y+25)$
c_2, c_3, c_7 c_8	$y^3(y-1)^3(y+1)^2(y^{12}-4y^{11}+\cdots+11y+4)$ $\cdot\,(y^{20}-14y^{19}+\cdots-388y+961)$
c_4, c_9	$9(y+1)^2(y^3+2y^2+y-1)^2$ $\cdot\,(y^{10}+5y^9+13y^8+19y^7+17y^6+7y^5-2y^3+y^2+2y+1)^2$ $\cdot\,(9y^{12}+51y^{11}+\cdots+240y+25)$
c_5, c_{10}	$64(4y^2+1)(y^3-2y^2+5y-1)(y^3+2y^2+y-1)$ $\cdot\,(4y^{12}-20y^{11}+\cdots-30y+9)(4y^{20}-52y^{19}+\cdots-56574y+14641)$