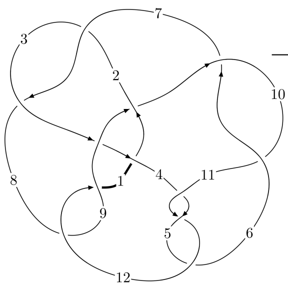
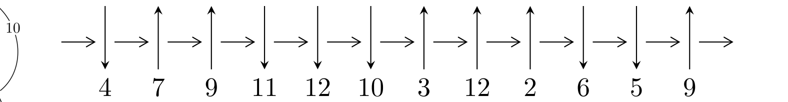
$12n_{0855}$ ($K12n_{0855}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -5u^{24} - 19u^{23} + \cdots + 2b + 18,\ -u^{24} - 3u^{23} + \cdots + 4a + 4,\ u^{25} + 5u^{24} + \cdots + 10u - 4\rangle$$
$$I_2^u = \langle 20u^7a^3 - 10u^7a^2 + \cdots - 62a + 47,\ -3u^7a^2 + 6u^7a + \cdots - 20a - 11,\ u^8 - u^7 - 3u^6 + 2u^5 + 3u^4 - 2u - 1\rangle$$
$$\begin{aligned} I_3^u = \langle & u^{14} - u^{13} - 5u^{12} + 5u^{11} + 8u^{10} - 8u^9 - u^8 + u^7 - 8u^6 + 8u^5 + 3u^4 - 4u^3 + 4u^2 + b - 3u, \\ & u^{14} - 6u^{12} + 13u^{10} - 9u^8 - 7u^6 + 11u^4 - u^3 + a + u - 3, \\ & u^{15} - 7u^{13} + 19u^{11} - 22u^9 + 3u^7 + 14u^5 - u^4 - 6u^3 + 2u^2 - 3u - 1\rangle \end{aligned}$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 72 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. $\boldsymbol{I_1^u =}$
$\boldsymbol{\langle -5u^{24}-19u^{23}+\cdots+2b+18,\ -u^{24}-3u^{23}+\cdots+4a+4,\ u^{25}+5u^{24}+\cdots+10u-4\rangle}$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} \frac{1}{4}u^{24} + \frac{3}{4}u^{23} + \cdots + \frac{25}{4}u - 1 \\ \frac{5}{2}u^{24} + \frac{19}{2}u^{23} + \cdots + \frac{61}{2}u - 9 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -7u^{24} - \frac{51}{2}u^{23} + \cdots - \frac{131}{2}u + \frac{41}{2} \\ -\frac{45}{2}u^{24} - \frac{161}{2}u^{23} + \cdots - \frac{391}{2}u + 62 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} \frac{1}{4}u^{24} + \frac{3}{4}u^{23} + \cdots + \frac{25}{4}u - 1 \\ \frac{7}{2}u^{24} + \frac{25}{2}u^{23} + \cdots + \frac{73}{2}u - 11 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -u^2 + 1 \\ -u^2 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} \frac{1}{2}u^{24} + 3u^{23} + \cdots + 11u - \frac{7}{2} \\ -\frac{11}{2}u^{24} - \frac{35}{2}u^{23} + \cdots - \frac{55}{2}u + 10 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -7u^{24} - \frac{51}{2}u^{23} + \cdots - \frac{131}{2}u + \frac{43}{2} \\ -\frac{45}{2}u^{24} - \frac{161}{2}u^{23} + \cdots - \frac{393}{2}u + 62 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u^6 - 3u^4 + 2u^2 + 1 \\ u^8 - 2u^6 + 2u^2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -u^3 + 2u \\ -u^5 + u^3 + u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 11u^{24} + 41u^{23} - 32u^{22} - 241u^{21} + 37u^{20} + 663u^{19} - 146u^{18} - 999u^{17} + 733u^{16} + 604u^{15} - 1604u^{14} + 758u^{13} + 1393u^{12} - 2013u^{11} + 411u^{10} + 1454u^9 - 1775u^8 + 369u^7 + 901u^6 - 1088u^5 + 350u^4 + 208u^3 - 373u^2 + 164u - 46$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{25} - 21u^{24} + \cdots + 1792u - 256$
c_2, c_7, c_9	$u^{25} + u^{24} + \cdots + u + 1$
c_3, c_8, c_{12}	$u^{25} + 18u^{23} + \cdots + 20u^2 + 1$
c_4, c_5, c_{11}	$u^{25} - 5u^{24} + \cdots + 10u + 4$
c_6, c_{10}	$u^{25} + 15u^{24} + \cdots - 1986u - 196$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{25} - 13y^{24} + \cdots - 131072y - 65536$
c_2, c_7, c_9	$y^{25} - 15y^{24} + \cdots + 9y - 1$
c_3, c_8, c_{12}	$y^{25} + 36y^{24} + \cdots - 40y - 1$
c_4, c_5, c_{11}	$y^{25} - 21y^{24} + \cdots - 100y - 16$
c_6, c_{10}	$y^{25} + 15y^{24} + \cdots - 132996y - 38416$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.042442 + 0.868462I$ $a = -0.716248 + 0.009860I$ $b = -0.315314 - 0.333618I$	$6.65854 - 2.22451I$	$1.85427 + 3.24248I$
$u = 0.042442 - 0.868462I$ $a = -0.716248 - 0.009860I$ $b = -0.315314 + 0.333618I$	$6.65854 + 2.22451I$	$1.85427 - 3.24248I$
$u = 0.170420 + 0.851806I$ $a = -1.68479 - 1.05733I$ $b = -0.313941 - 1.151630I$	$1.36106 - 10.21960I$	$3.12273 + 6.18876I$
$u = 0.170420 - 0.851806I$ $a = -1.68479 + 1.05733I$ $b = -0.313941 + 1.151630I$	$1.36106 + 10.21960I$	$3.12273 - 6.18876I$
$u = 0.689863 + 0.516195I$ $a = 0.90028 + 1.54729I$ $b = 0.157173 + 0.858656I$	$-2.89781 - 4.73922I$	$0.64335 + 6.01647I$
$u = 0.689863 - 0.516195I$ $a = 0.90028 - 1.54729I$ $b = 0.157173 - 0.858656I$	$-2.89781 + 4.73922I$	$0.64335 - 6.01647I$
$u = 1.062620 + 0.439244I$ $a = -0.93017 - 1.06985I$ $b = -0.393102 - 0.665533I$	$-1.37637 + 5.59077I$	$0.49701 - 2.52369I$
$u = 1.062620 - 0.439244I$ $a = -0.93017 + 1.06985I$ $b = -0.393102 + 0.665533I$	$-1.37637 - 5.59077I$	$0.49701 + 2.52369I$
$u = 0.370519 + 0.720063I$ $a = 1.56474 + 0.89351I$ $b = 0.401573 + 0.852679I$	$-1.86125 + 0.38147I$	$3.19263 - 0.66430I$
$u = 0.370519 - 0.720063I$ $a = 1.56474 - 0.89351I$ $b = 0.401573 - 0.852679I$	$-1.86125 - 0.38147I$	$3.19263 + 0.66430I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.27648$ $a = 0.500312$ $b = 0.280537$	-2.96177	-0.698220
$u = -1.296580 + 0.136250I$ $a = 0.004316 - 0.323358I$ $b = 0.429924 - 1.218120I$	$-4.47329 + 2.69307I$	$-5.03326 - 5.98784I$
$u = -1.296580 - 0.136250I$ $a = 0.004316 + 0.323358I$ $b = 0.429924 + 1.218120I$	$-4.47329 - 2.69307I$	$-5.03326 + 5.98784I$
$u = 1.235760 + 0.416433I$ $a = -0.139402 - 0.504528I$ $b = -0.038519 - 0.297655I$	$2.97397 - 2.37583I$	$-1.057681 + 0.915229I$
$u = 1.235760 - 0.416433I$ $a = -0.139402 + 0.504528I$ $b = -0.038519 + 0.297655I$	$2.97397 + 2.37583I$	$-1.057681 - 0.915229I$
$u = -1.304980 + 0.396966I$ $a = -0.149198 + 0.398993I$ $b = -0.962816 + 0.648234I$	$2.45389 + 6.76060I$	$-2.28268 - 6.77573I$
$u = -1.304980 - 0.396966I$ $a = -0.149198 - 0.398993I$ $b = -0.962816 - 0.648234I$	$2.45389 - 6.76060I$	$-2.28268 + 6.77573I$
$u = -1.37760 + 0.36657I$ $a = 0.142768 + 1.259210I$ $b = -1.32923 + 3.16497I$	$-3.5266 + 14.6054I$	$-1.02784 - 7.76061I$
$u = -1.37760 - 0.36657I$ $a = 0.142768 - 1.259210I$ $b = -1.32923 - 3.16497I$	$-3.5266 - 14.6054I$	$-1.02784 + 7.76061I$
$u = -1.44314 + 0.25974I$ $a = 0.006895 - 1.095370I$ $b = 1.09681 - 2.92836I$	$-7.68655 + 3.14182I$	$0.46512 + 1.43904I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.44314-0.25974I$ $a=\ \ 0.006895+1.095370I$ $b=\ \ 1.09681+2.92836I$	$-7.68655-3.14182I$	$0.46512-1.43904I$
$u=-1.46408+0.08648I$ $a=-0.108140-1.228800I$ $b=\ \ 0.14349-3.82971I$	$-9.92989+6.47027I$	$-4.20740-5.48144I$
$u=-1.46408-0.08648I$ $a=-0.108140+1.228800I$ $b=\ \ 0.14349+3.82971I$	$-9.92989-6.47027I$	$-4.20740+5.48144I$
$u=\ \ 0.176540+0.371053I$ $a=\ \ 0.608793+0.633615I$ $b=-0.016319+0.292219I$	$0.045964-0.832254I$	$1.18286+8.33998I$
$u=\ \ 0.176540-0.371053I$ $a=\ \ 0.608793-0.633615I$ $b=-0.016319-0.292219I$	$0.045964+0.832254I$	$1.18286-8.33998I$

II. $\boldsymbol{I^u_2 = \langle 20u^7a^3 - 10u^7a^2 + \cdots - 62a + 47,\ -3u^7a^2 + 6u^7a + \cdots - 20a - 11,\ u^8 - u^7 - 3u^6 + 2u^5 + 3u^4 - 2u - 1\rangle}$

(i) Arc colorings

$$a_5 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_{12} = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_6 = \begin{pmatrix}1\\u^2\end{pmatrix}$$
$$a_9 = \begin{pmatrix}a\\-0.465116a^3u^7 + 0.232558a^2u^7 + \cdots + 1.44186a - 1.09302\end{pmatrix}$$
$$a_1 = \begin{pmatrix}a^2u\\-0.790698a^3u^7 + 1.39535a^2u^7 + \cdots + 0.651163a - 0.558140\end{pmatrix}$$
$$a_8 = \begin{pmatrix}a\\-0.465116a^3u^7 + 0.232558a^2u^7 + \cdots + 1.44186a - 1.09302\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}u\\u\end{pmatrix}$$
$$a_4 = \begin{pmatrix}-u^2+1\\-u^2\end{pmatrix}$$
$$a_2 = \begin{pmatrix}0.116279a^3u^7 + 0.441860a^2u^7 + \cdots + 0.139535a + 1.02326\\-0.302326a^3u^7 + 1.65116a^2u^7 + \cdots + 0.837209a + 0.139535\end{pmatrix}$$
$$a_3 = \begin{pmatrix}0.186047a^3u^7 - 0.0930233a^2u^7 + \cdots + 0.0232558a + 0.837209\\1.90698a^3u^7 - 1.95349a^2u^7 + \cdots - 0.511628a - 0.418605\end{pmatrix}$$
$$a_7 = \begin{pmatrix}u^6 - 3u^4 + 2u^2 + 1\\u^7 + u^6 - 2u^5 - 3u^4 + 2u^2 + 2u + 1\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}-u^3+2u\\-u^5+u^3+u\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -4u^6 + 12u^4 + 4u^3 - 8u^2 - 8u - 6$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$(u^2+u-1)^{16}$
c_2, c_7, c_9	$u^{32}+u^{31}+\cdots+318u+199$
c_3, c_8, c_{12}	$u^{32}-u^{31}+\cdots-1792u-271$
c_4, c_5, c_{11}	$(u^8+u^7-3u^6-2u^5+3u^4+2u-1)^4$
c_6, c_{10}	$(u^8-3u^7+7u^6-10u^5+11u^4-10u^3+6u^2-4u+1)^4$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$(y^2 - 3y + 1)^{16}$
c_2, c_7, c_9	$y^{32} - 13y^{31} + \cdots - 651956y + 39601$
c_3, c_8, c_{12}	$y^{32} + 19y^{31} + \cdots - 1289332y + 73441$
c_4, c_5, c_{11}	$(y^8 - 7y^7 + 19y^6 - 22y^5 + 3y^4 + 14y^3 - 6y^2 - 4y + 1)^4$
c_6, c_{10}	$(y^8 + 5y^7 + 11y^6 + 6y^5 - 17y^4 - 34y^3 - 22y^2 - 4y + 1)^4$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.180120+0.268597I$ $a=-0.573305+0.724047I$ $b=\ \ 0.069236-0.301245I$	$-4.98850+1.13123I$	$0.584775-0.510791I$
$u=-1.180120+0.268597I$ $a=\ \ 0.977884+0.579436I$ $b=-0.33020+2.17451I$	$2.90719+1.13123I$	$0.584775-0.510791I$
$u=-1.180120+0.268597I$ $a=\ \ 0.371867-1.152550I$ $b=\ \ 0.48288-1.38255I$	$-4.98850+1.13123I$	$0.584775-0.510791I$
$u=-1.180120+0.268597I$ $a=-0.450513+0.542402I$ $b=-1.11527+2.23372I$	$2.90719+1.13123I$	$0.584775-0.510791I$
$u=-1.180120-0.268597I$ $a=-0.573305-0.724047I$ $b=\ \ 0.069236+0.301245I$	$-4.98850-1.13123I$	$0.584775+0.510791I$
$u=-1.180120-0.268597I$ $a=\ \ 0.977884-0.579436I$ $b=-0.33020-2.17451I$	$2.90719-1.13123I$	$0.584775+0.510791I$
$u=-1.180120-0.268597I$ $a=\ \ 0.371867+1.152550I$ $b=\ \ 0.48288+1.38255I$	$-4.98850-1.13123I$	$0.584775+0.510791I$
$u=-1.180120-0.268597I$ $a=-0.450513-0.542402I$ $b=-1.11527-2.23372I$	$2.90719-1.13123I$	$0.584775+0.510791I$
$u=-0.108090+0.747508I$ $a=-1.029300+0.246196I$ $b=\ \ 0.524935-0.257181I$	$6.10726+2.57849I$	$3.72292-3.56796I$
$u=-0.108090+0.747508I$ $a=-1.46947+1.05203I$ $b=-0.428409+1.312810I$	$-1.78843+2.57849I$	$3.72292-3.56796I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.108090+0.747508I$ $a=-0.64475-1.85535I$ $b=-0.208281-1.216220I$	$6.10726+2.57849I$	$3.72292-3.56796I$
$u=-0.108090+0.747508I$ $a=\ \ 2.10891-0.43739I$ $b=\ \ 0.307458-0.750018I$	$-1.78843+2.57849I$	$3.72292-3.56796I$
$u=-0.108090-0.747508I$ $a=-1.029300-0.246196I$ $b=\ \ 0.524935+0.257181I$	$6.10726-2.57849I$	$3.72292+3.56796I$
$u=-0.108090-0.747508I$ $a=-1.46947-1.05203I$ $b=-0.428409-1.312810I$	$-1.78843-2.57849I$	$3.72292+3.56796I$
$u=-0.108090-0.747508I$ $a=-0.64475+1.85535I$ $b=-0.208281+1.216220I$	$6.10726-2.57849I$	$3.72292+3.56796I$
$u=-0.108090-0.747508I$ $a=\ \ 2.10891+0.43739I$ $b=\ \ 0.307458+0.750018I$	$-1.78843-2.57849I$	$3.72292+3.56796I$
$u=\ \ 1.37100$ $a=\ \ 0.975338$ $b=\ \ 1.58426$	-2.55489	-5.86400
$u=\ \ 1.37100$ $a=-0.247524+1.200480I$ $b=-0.14313+4.43627I$	-10.4506	-5.86400
$u=\ \ 1.37100$ $a=-0.247524-1.200480I$ $b=-0.14313-4.43627I$	-10.4506	-5.86400
$u=\ \ 1.37100$ $a=\ \ 0.320715$ $b=-0.834836$	-2.55489	-5.86400

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.334530 + 0.318930I$ $a = 0.283327 - 1.065010I$ $b = -1.51898 - 2.93006I$	$-6.32752 - 6.44354I$	$-1.42845 + 5.29417I$
$u = 1.334530 + 0.318930I$ $a = -1.130370 + 0.118813I$ $b = -1.00572 + 1.40159I$	$1.56816 - 6.44354I$	$-1.42845 + 5.29417I$
$u = 1.334530 + 0.318930I$ $a = 0.237323 + 1.244130I$ $b = 1.81040 + 3.06377I$	$-6.32752 - 6.44354I$	$-1.42845 + 5.29417I$
$u = 1.334530 + 0.318930I$ $a = -0.232706 - 0.587777I$ $b = 0.24276 - 1.75166I$	$1.56816 - 6.44354I$	$-1.42845 + 5.29417I$
$u = 1.334530 - 0.318930I$ $a = 0.283327 + 1.065010I$ $b = -1.51898 + 2.93006I$	$-6.32752 + 6.44354I$	$-1.42845 - 5.29417I$
$u = 1.334530 - 0.318930I$ $a = -1.130370 - 0.118813I$ $b = -1.00572 - 1.40159I$	$1.56816 + 6.44354I$	$-1.42845 - 5.29417I$
$u = 1.334530 - 0.318930I$ $a = 0.237323 - 1.244130I$ $b = 1.81040 - 3.06377I$	$-6.32752 + 6.44354I$	$-1.42845 - 5.29417I$
$u = 1.334530 - 0.318930I$ $a = -0.232706 + 0.587777I$ $b = 0.24276 + 1.75166I$	$1.56816 + 6.44354I$	$-1.42845 - 5.29417I$
$u = -0.463640$ $a = -0.460586$ $b = -1.38936$	3.10281	-3.89450
$u = -0.463640$ $a = 2.56602$ $b = -0.430619$	3.10281	-3.89450

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.463640$ $a = -0.40210 + 3.00975I$ $b = \quad 0.347586 + 0.953404I$	-4.79288	-3.89450
$u = -0.463640$ $a = -0.40210 - 3.00975I$ $b = \quad 0.347586 - 0.953404I$	-4.79288	-3.89450

III.

$$\boldsymbol{I^u_3 = \langle u^{14} - u^{13} + \cdots + b - 3u,\ u^{14} - 6u^{12} + \cdots + a - 3,\ u^{15} - 7u^{13} + \cdots - 3u - 1\rangle}$$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u^{14} + 6u^{12} - 13u^{10} + 9u^8 + 7u^6 - 11u^4 + u^3 - u + 3 \\ -u^{14} + u^{13} + \cdots - 4u^2 + 3u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^{11} - 5u^9 + 9u^7 - 5u^5 - 3u^3 + u^2 + 3u - 2 \\ -u^{14} + u^{13} + \cdots + u + 1 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -u^{14} + 6u^{12} - 13u^{10} + 9u^8 + 7u^6 - 11u^4 + u^3 - u + 3 \\ -2u^{14} + u^{13} + \cdots - 4u^2 + 2u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -u^2 + 1 \\ -u^2 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} u^{14} - 6u^{12} + \cdots + 4u - 2 \\ u^{13} + u^{12} + \cdots + u + 1 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u^{11} - 5u^9 + 9u^7 - 5u^5 - 3u^3 + 3u - 1 \\ -u^{14} + u^{13} + \cdots + 6u^3 + 1 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u^6 - 3u^4 + 2u^2 + 1 \\ u^8 - 2u^6 + 2u^2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -u^3 + 2u \\ -u^5 + u^3 + u \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -4u^{14} + 2u^{13} + 28u^{12} - 10u^{11} - 72u^{10} + 16u^9 + 72u^8 - 2u^7 + 5u^6 - 16u^5 - 46u^4 + 13u^3 + 3u^2 - 5u + 10$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{15} - 6u^{14} + \cdots + 7u - 1$
c_2, c_9	$u^{15} + u^{14} + \cdots + 3u^2 + 1$
c_3, c_8	$u^{15} + 3u^{13} + \cdots + u + 1$
c_4, c_5	$u^{15} - 7u^{13} + 19u^{11} - 22u^9 + 3u^7 + 14u^5 - u^4 - 6u^3 + 2u^2 - 3u - 1$
c_6	$u^{15} + 5u^{13} + \cdots - 3u - 1$
c_7	$u^{15} - u^{14} + \cdots - 3u^2 - 1$
c_{10}	$u^{15} + 5u^{13} + \cdots - 3u + 1$
c_{11}	$u^{15} - 7u^{13} + 19u^{11} - 22u^9 + 3u^7 + 14u^5 + u^4 - 6u^3 - 2u^2 - 3u + 1$
c_{12}	$u^{15} + 3u^{13} + \cdots + u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{15} - 10y^{14} + \cdots + 65y - 1$
c_2, c_7, c_9	$y^{15} - 9y^{14} + \cdots - 6y - 1$
c_3, c_8, c_{12}	$y^{15} + 6y^{14} + \cdots + 9y - 1$
c_4, c_5, c_{11}	$y^{15} - 14y^{14} + \cdots + 13y - 1$
c_6, c_{10}	$y^{15} + 10y^{14} + \cdots + 15y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.067646 + 0.825365I$ $a = -0.380175 - 0.868214I$ $b = 0.310598 - 0.548513I$	$7.99475 + 1.92226I$	$9.12294 - 1.22401I$
$u = -0.067646 - 0.825365I$ $a = -0.380175 + 0.868214I$ $b = 0.310598 + 0.548513I$	$7.99475 - 1.92226I$	$9.12294 + 1.22401I$
$u = -1.20404$ $a = -0.582456$ $b = -3.43713$	0.894455	-3.21180
$u = 1.202120 + 0.181369I$ $a = 0.277876 + 0.914400I$ $b = 0.118572 + 0.512284I$	$-6.17070 - 1.65898I$	$-7.52412 + 4.06635I$
$u = 1.202120 - 0.181369I$ $a = 0.277876 - 0.914400I$ $b = 0.118572 - 0.512284I$	$-6.17070 + 1.65898I$	$-7.52412 - 4.06635I$
$u = -1.216500 + 0.366926I$ $a = 0.493698 + 0.310572I$ $b = 0.45473 + 1.67906I$	$4.46605 + 2.37005I$	$5.16588 - 2.66961I$
$u = -1.216500 - 0.366926I$ $a = 0.493698 - 0.310572I$ $b = 0.45473 - 1.67906I$	$4.46605 - 2.37005I$	$5.16588 + 2.66961I$
$u = 1.322630 + 0.369202I$ $a = -0.597920 - 0.072527I$ $b = -0.341991 - 0.081983I$	$3.63687 - 6.22447I$	$4.70740 + 3.89231I$
$u = 1.322630 - 0.369202I$ $a = -0.597920 + 0.072527I$ $b = -0.341991 + 0.081983I$	$3.63687 + 6.22447I$	$4.70740 - 3.89231I$
$u = 1.38580$ $a = 0.772897$ $b = 0.448939$	-1.59422	4.26710

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.191847 + 0.580989I$		
$a = 2.04075 + 1.02550I$	$-3.17279 - 1.01583I$	$0.86576 + 1.51873I$
$b = 0.318346 + 1.004690I$		
$u = 0.191847 - 0.580989I$		
$a = 2.04075 - 1.02550I$	$-3.17279 + 1.01583I$	$0.86576 - 1.51873I$
$b = 0.318346 - 1.004690I$		
$u = -1.393270 + 0.230580I$		
$a = -0.026700 - 1.147080I$	$-8.28883 + 4.00739I$	$-4.40865 - 4.46883I$
$b = 1.19545 - 3.34732I$		
$u = -1.393270 - 0.230580I$		
$a = -0.026700 + 1.147080I$	$-8.28883 - 4.00739I$	$-4.40865 + 4.46883I$
$b = 1.19545 + 3.34732I$		
$u = -0.260139$		
$a = 3.19450$	3.76907	11.0860
$b = -1.12320$		

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u^2+u-1)^{16})(u^{15}-6u^{14}+\cdots+7u-1)$ $\cdot\,(u^{25}-21u^{24}+\cdots+1792u-256)$
c_2, c_9	$(u^{15}+u^{14}+\cdots+3u^2+1)(u^{25}+u^{24}+\cdots+u+1)$ $\cdot\,(u^{32}+u^{31}+\cdots+318u+199)$
c_3, c_8	$(u^{15}+3u^{13}+\cdots+u+1)(u^{25}+18u^{23}+\cdots+20u^2+1)$ $\cdot\,(u^{32}-u^{31}+\cdots-1792u-271)$
c_4, c_5	$(u^8+u^7-3u^6-2u^5+3u^4+2u-1)^4$ $\cdot\,(u^{15}-7u^{13}+19u^{11}-22u^9+3u^7+14u^5-u^4-6u^3+2u^2-3u-1)$ $\cdot\,(u^{25}-5u^{24}+\cdots+10u+4)$
c_6	$(u^8-3u^7+7u^6-10u^5+11u^4-10u^3+6u^2-4u+1)^4$ $\cdot\,(u^{15}+5u^{13}+\cdots-3u-1)(u^{25}+15u^{24}+\cdots-1986u-196)$
c_7	$(u^{15}-u^{14}+\cdots-3u^2-1)(u^{25}+u^{24}+\cdots+u+1)$ $\cdot\,(u^{32}+u^{31}+\cdots+318u+199)$
c_{10}	$(u^8-3u^7+7u^6-10u^5+11u^4-10u^3+6u^2-4u+1)^4$ $\cdot\,(u^{15}+5u^{13}+\cdots-3u+1)(u^{25}+15u^{24}+\cdots-1986u-196)$
c_{11}	$(u^8+u^7-3u^6-2u^5+3u^4+2u-1)^4$ $\cdot\,(u^{15}-7u^{13}+19u^{11}-22u^9+3u^7+14u^5+u^4-6u^3-2u^2-3u+1)$ $\cdot\,(u^{25}-5u^{24}+\cdots+10u+4)$
c_{12}	$(u^{15}+3u^{13}+\cdots+u-1)(u^{25}+18u^{23}+\cdots+20u^2+1)$ $\cdot\,(u^{32}-u^{31}+\cdots-1792u-271)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y^2-3y+1)^{16})(y^{15}-10y^{14}+\cdots+65y-1)$ $\cdot(y^{25}-13y^{24}+\cdots-131072y-65536)$
c_2, c_7, c_9	$(y^{15}-9y^{14}+\cdots-6y-1)(y^{25}-15y^{24}+\cdots+9y-1)$ $\cdot(y^{32}-13y^{31}+\cdots-651956y+39601)$
c_3, c_8, c_{12}	$(y^{15}+6y^{14}+\cdots+9y-1)(y^{25}+36y^{24}+\cdots-40y-1)$ $\cdot(y^{32}+19y^{31}+\cdots-1289332y+73441)$
c_4, c_5, c_{11}	$(y^8-7y^7+19y^6-22y^5+3y^4+14y^3-6y^2-4y+1)^4$ $\cdot(y^{15}-14y^{14}+\cdots+13y-1)(y^{25}-21y^{24}+\cdots-100y-16)$
c_6, c_{10}	$(y^8+5y^7+11y^6+6y^5-17y^4-34y^3-22y^2-4y+1)^4$ $\cdot(y^{15}+10y^{14}+\cdots+15y-1)(y^{25}+15y^{24}+\cdots-132996y-38416)$