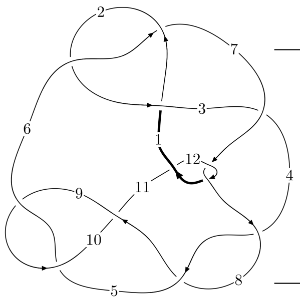
$12n_{0295}$ ($K12n_{0295}$)



A knot diagram[1]

Linearized knot diagam

$$\rightarrow \underset{3}{\downarrow} \rightarrow \underset{6}{\uparrow} \rightarrow \underset{7}{\downarrow} \rightarrow \underset{8}{\uparrow} \rightarrow \underset{10}{\downarrow} \rightarrow \underset{2}{\uparrow} \rightarrow \underset{12}{\uparrow} \rightarrow \underset{5}{\uparrow} \rightarrow \underset{6}{\downarrow} \rightarrow \underset{9}{\uparrow} \rightarrow \underset{1}{\uparrow} \rightarrow \underset{8}{\uparrow} \rightarrow$$

Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 1.06469 \times 10^{32} u^{66} - 1.40021 \times 10^{32} u^{65} + \cdots + 2.98795 \times 10^{31} b - 4.19610 \times 10^{32}, \\ & - 1.94960 \times 10^{31} u^{66} - 3.90032 \times 10^{31} u^{65} + \cdots + 2.98795 \times 10^{31} a - 2.08028 \times 10^{32},\ u^{67} - u^{66} + \cdots - 4u + \end{aligned}$$

$$I_2^u = \langle u^3 a - u^2 a + au - u^2 + b - 2a + u - 1,\ u^3 a + 2a^2 + 2au - u^2 - 2,\ u^4 + 2u^2 + 2 \rangle$$

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

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 77 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.

$\boldsymbol{I_1^u = \langle 1.06\times 10^{32}u^{66} - 1.40\times 10^{32}u^{65} + \cdots + 2.99\times 10^{31}b - 4.20\times 10^{32},\ -1.95\times 10^{31}u^{66} - 3.90\times 10^{31}u^{65} + \cdots + 2.99\times 10^{31}a - 2.08\times 10^{32},\ u^{67} - u^{66} + \cdots - 4u + 4\rangle}$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

$$a_{10} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.652488u^{66} + 1.30535u^{65} + \cdots + 3.13714u + 6.96225 \\ -3.56329u^{66} + 4.68621u^{65} + \cdots - 16.7518u + 14.0434 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u^2 + 1 \\ u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.652488u^{66} + 1.30535u^{65} + \cdots + 3.13714u + 6.96225 \\ -2.60763u^{66} + 2.64905u^{65} + \cdots - 11.5304u + 6.21206 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -3.25872u^{66} + 3.19768u^{65} + \cdots - 14.7929u + 8.57622 \\ 2.29504u^{66} - 0.672961u^{65} + \cdots + 9.68506u - 2.51477 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.0915661u^{66} - 1.99663u^{65} + \cdots + 2.63606u - 7.72366 \\ -4.93115u^{66} + 4.21632u^{65} + \cdots - 21.8384u + 11.2155 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} u^4 + u^2 + 1 \\ u^6 + 2u^4 + u^2 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -u^7 - 2u^5 - 2u^3 \\ -u^9 - 3u^7 - 3u^5 + u \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 0.709744u^{66} - 1.32832u^{65} + \cdots + 4.54050u - 3.81522 \\ -5.57978u^{66} + 5.85739u^{65} + \cdots - 26.2200u + 17.2657 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 3.44470u^{66} - 8.34775u^{65} + \cdots + 29.7826u - 28.7599$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{67} + 38u^{66} + \cdots - 4u - 1$
c_2, c_6	$u^{67} - 2u^{66} + \cdots + 6u - 1$
c_3	$u^{67} + 2u^{66} + \cdots + 734u - 173$
c_4, c_8	$u^{67} - u^{66} + \cdots - 52u - 548$
c_5, c_9	$u^{67} + u^{66} + \cdots - 4u - 4$
c_7, c_{12}	$u^{67} - 3u^{66} + \cdots - 15u - 13$
c_{10}	$u^{67} - 31u^{66} + \cdots - 80u + 16$
c_{11}	$u^{67} - 23u^{66} + \cdots + 3501u - 169$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{67} - 10y^{66} + \cdots + 84y - 1$
c_2, c_6	$y^{67} + 38y^{66} + \cdots - 4y - 1$
c_3	$y^{67} - 58y^{66} + \cdots - 506856y - 29929$
c_4, c_8	$y^{67} - y^{66} + \cdots - 3289680y - 300304$
c_5, c_9	$y^{67} + 31y^{66} + \cdots - 80y - 16$
c_7, c_{12}	$y^{67} - 23y^{66} + \cdots + 3501y - 169$
c_{10}	$y^{67} + 15y^{66} + \cdots - 3328y - 256$
c_{11}	$y^{67} + 57y^{66} + \cdots + 203921y - 28561$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.293686+0.958960I$ $a=-0.848658-0.410982I$ $b=-1.26966-0.89610I$	$3.60658-1.32410I$	$10.41239+2.57758I$
$u=-0.293686-0.958960I$ $a=-0.848658+0.410982I$ $b=-1.26966+0.89610I$	$3.60658+1.32410I$	$10.41239-2.57758I$
$u=-0.797556+0.595964I$ $a=\ \ 0.370623-1.314420I$ $b=-0.92158-2.06820I$	$-8.62301+6.67427I$	$0.-5.42994I$
$u=-0.797556-0.595964I$ $a=\ \ 0.370623+1.314420I$ $b=-0.92158+2.06820I$	$-8.62301-6.67427I$	$0.+5.42994I$
$u=\ \ 0.390812+0.942541I$ $a=-0.614053-0.918919I$ $b=-0.27889-2.74791I$	$2.87894-3.62568I$	$4.00000+3.66828I$
$u=\ \ 0.390812-0.942541I$ $a=-0.614053+0.918919I$ $b=-0.27889+2.74791I$	$2.87894+3.62568I$	$4.00000-3.66828I$
$u=\ \ 0.369468+0.905859I$ $a=-1.161530+0.100804I$ $b=\ \ 1.70277+0.10484I$	$2.70033+0.62241I$	$6.92862+0.I$
$u=\ \ 0.369468-0.905859I$ $a=-1.161530-0.100804I$ $b=\ \ 1.70277-0.10484I$	$2.70033-0.62241I$	$6.92862+0.I$
$u=-0.625687+0.815726I$ $a=-0.866747+0.736378I$ $b=\ \ 0.96397+1.91289I$	$-4.18859+2.44849I$	0
$u=-0.625687-0.815726I$ $a=-0.866747-0.736378I$ $b=\ \ 0.96397-1.91289I$	$-4.18859-2.44849I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.827360 + 0.500431I$ $a = -0.371421 - 1.339800I$ $b = 0.97307 - 1.82972I$	$-8.90984 + 0.43271I$	$-1.022530 + 0.496680I$
$u = 0.827360 - 0.500431I$ $a = -0.371421 + 1.339800I$ $b = 0.97307 + 1.82972I$	$-8.90984 - 0.43271I$	$-1.022530 - 0.496680I$
$u = -0.828153 + 0.492617I$ $a = -1.081770 + 0.896752I$ $b = 1.05437 + 1.68616I$	$-8.86607 - 3.17955I$	$-0.988573 + 0.950602I$
$u = -0.828153 - 0.492617I$ $a = -1.081770 - 0.896752I$ $b = 1.05437 - 1.68616I$	$-8.86607 + 3.17955I$	$-0.988573 - 0.950602I$
$u = 0.773593 + 0.535367I$ $a = 0.820590 - 0.525886I$ $b = 0.506080 + 0.187810I$	$-4.83958 - 1.65195I$	$2.33033 + 2.39714I$
$u = 0.773593 - 0.535367I$ $a = 0.820590 + 0.525886I$ $b = 0.506080 - 0.187810I$	$-4.83958 + 1.65195I$	$2.33033 - 2.39714I$
$u = 0.846926 + 0.407345I$ $a = 1.10299 + 0.93182I$ $b = -1.17325 + 1.47521I$	$-7.51011 + 10.16540I$	$0.84901 - 5.51887I$
$u = 0.846926 - 0.407345I$ $a = 1.10299 - 0.93182I$ $b = -1.17325 - 1.47521I$	$-7.51011 - 10.16540I$	$0.84901 + 5.51887I$
$u = -0.808297 + 0.434822I$ $a = -0.798749 - 0.636743I$ $b = -0.374659 + 0.223488I$	$-4.26028 - 4.81071I$	$3.21364 + 2.49973I$
$u = -0.808297 - 0.434822I$ $a = -0.798749 + 0.636743I$ $b = -0.374659 - 0.223488I$	$-4.26028 + 4.81071I$	$3.21364 - 2.49973I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.393391+1.042260I$ $a=-0.204574+0.462109I$ $b=-0.204935-0.456540I$	$4.35771+3.46092I$	0
$u=-0.393391-1.042260I$ $a=-0.204574-0.462109I$ $b=-0.204935+0.456540I$	$4.35771-3.46092I$	0
$u=-0.102031+1.124100I$ $a=-0.074288+0.720806I$ $b=-0.252101+1.022590I$	$1.05983-2.64924I$	0
$u=-0.102031-1.124100I$ $a=-0.074288-0.720806I$ $b=-0.252101-1.022590I$	$1.05983+2.64924I$	0
$u=0.499688+1.012210I$ $a=0.890259-0.218223I$ $b=0.757089-0.307916I$	$1.97793-2.12988I$	0
$u=0.499688-1.012210I$ $a=0.890259+0.218223I$ $b=0.757089+0.307916I$	$1.97793+2.12988I$	0
$u=0.548320+0.997805I$ $a=0.696251+0.717636I$ $b=-2.01408+2.32374I$	$1.30273-5.96282I$	0
$u=0.548320-0.997805I$ $a=0.696251-0.717636I$ $b=-2.01408-2.32374I$	$1.30273+5.96282I$	0
$u=-0.003645+1.165290I$ $a=1.040750+0.337542I$ $b=-0.279122+0.832538I$	$-2.94562-1.34587I$	0
$u=-0.003645-1.165290I$ $a=1.040750-0.337542I$ $b=-0.279122-0.832538I$	$-2.94562+1.34587I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.298119 + 0.774004I$ $a = 0.239287 + 0.602551I$ $b = -0.040611 + 0.560440I$	$0.401806 - 1.265690I$	$4.47035 + 5.10756I$
$u = 0.298119 - 0.774004I$ $a = 0.239287 - 0.602551I$ $b = -0.040611 - 0.560440I$	$0.401806 + 1.265690I$	$4.47035 - 5.10756I$
$u = -0.545451 + 1.036140I$ $a = 0.346086 - 0.872759I$ $b = -0.02443 - 2.31994I$	$1.87665 + 7.41999I$	0
$u = -0.545451 - 1.036140I$ $a = 0.346086 + 0.872759I$ $b = -0.02443 + 2.31994I$	$1.87665 - 7.41999I$	0
$u = -0.414664 + 1.113320I$ $a = -0.322911 - 0.117417I$ $b = -0.009462 - 1.064340I$	$4.31530 + 3.66992I$	0
$u = -0.414664 - 1.113320I$ $a = -0.322911 + 0.117417I$ $b = -0.009462 + 1.064340I$	$4.31530 - 3.66992I$	0
$u = 0.563544 + 0.577917I$ $a = 1.109400 + 0.643464I$ $b = -0.66998 + 2.28277I$	$0.05661 + 1.47287I$	$-0.156482 - 0.461455I$
$u = 0.563544 - 0.577917I$ $a = 1.109400 - 0.643464I$ $b = -0.66998 - 2.28277I$	$0.05661 - 1.47287I$	$-0.156482 + 0.461455I$
$u = 0.123549 + 1.190490I$ $a = -1.043430 + 0.330545I$ $b = 0.286253 + 1.175820I$	$-2.02431 + 7.56304I$	0
$u = 0.123549 - 1.190490I$ $a = -1.043430 - 0.330545I$ $b = 0.286253 - 1.175820I$	$-2.02431 - 7.56304I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.670786 + 1.018810I$ $a = 1.078320 - 0.268018I$ $b = -0.60969 - 1.60312I$	$-7.35703 - 1.17039I$	0
$u = -0.670786 - 1.018810I$ $a = 1.078320 + 0.268018I$ $b = -0.60969 + 1.60312I$	$-7.35703 + 1.17039I$	0
$u = 0.431796 + 1.142180I$ $a = 0.842437 - 0.007900I$ $b = 0.311709 - 0.277350I$	$2.39569 - 1.20414I$	0
$u = 0.431796 - 1.142180I$ $a = 0.842437 + 0.007900I$ $b = 0.311709 + 0.277350I$	$2.39569 + 1.20414I$	0
$u = 0.632532 + 1.049100I$ $a = -0.410549 + 0.627513I$ $b = -1.004620 + 0.513716I$	$-3.30409 - 3.65847I$	0
$u = 0.632532 - 1.049100I$ $a = -0.410549 - 0.627513I$ $b = -1.004620 - 0.513716I$	$-3.30409 + 3.65847I$	0
$u = -0.491913 + 1.123810I$ $a = 0.487065 - 0.297919I$ $b = 0.64193 - 2.20537I$	$3.73381 + 3.87247I$	0
$u = -0.491913 - 1.123810I$ $a = 0.487065 + 0.297919I$ $b = 0.64193 + 2.20537I$	$3.73381 - 3.87247I$	0
$u = 0.442549 + 1.167140I$ $a = -0.668713 - 0.591003I$ $b = -0.37959 - 2.23277I$	$2.29737 - 6.96304I$	0
$u = 0.442549 - 1.167140I$ $a = -0.668713 + 0.591003I$ $b = -0.37959 + 2.23277I$	$2.29737 + 6.96304I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=\ 0.649361+1.084610I$ $a=-1.014350-0.308144I$ $b=\ 0.43011-1.87121I$	$-7.15571-5.94368I$	0
$u=\ 0.649361-1.084610I$ $a=-1.014350+0.308144I$ $b=\ 0.43011+1.87121I$	$-7.15571+5.94368I$	0
$u=-0.646127+1.088570I$ $a=-0.663411+0.842579I$ $b=\ 0.88041+3.02440I$	$-7.07599+8.68070I$	0
$u=-0.646127-1.088570I$ $a=-0.663411-0.842579I$ $b=\ 0.88041-3.02440I$	$-7.07599-8.68070I$	0
$u=-0.570732+0.461256I$ $a=\ 1.41705-0.34329I$ $b=-0.533167-0.314158I$	$0.23654-2.91363I$	$0.64103+4.67783I$
$u=-0.570732-0.461256I$ $a=\ 1.41705+0.34329I$ $b=-0.533167+0.314158I$	$0.23654+2.91363I$	$0.64103-4.67783I$
$u=-0.617183+1.107590I$ $a=\ 0.503682+0.559159I$ $b=\ 1.252870+0.595770I$	$-2.25041+10.15140I$	0
$u=-0.617183-1.107590I$ $a=\ 0.503682-0.559159I$ $b=\ 1.252870-0.595770I$	$-2.25041-10.15140I$	0
$u=\ 0.713940+0.055087I$ $a=-0.56556-1.40057I$ $b=\ 0.473278-0.746286I$	$-0.93797+2.72253I$	$-0.22585-4.76234I$
$u=\ 0.713940-0.055087I$ $a=-0.56556+1.40057I$ $b=\ 0.473278+0.746286I$	$-0.93797-2.72253I$	$-0.22585+4.76234I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.621904 + 1.131010I$ $a = 0.619371 + 0.849174I$ $b = -0.63824 + 3.33873I$	$-5.3362 - 15.6199I$	0
$u = 0.621904 - 1.131010I$ $a = 0.619371 - 0.849174I$ $b = -0.63824 - 3.33873I$	$-5.3362 + 15.6199I$	0
$u = -0.622131 + 0.231767I$ $a = 0.260574 - 1.086710I$ $b = -1.188230 - 0.194967I$	$1.188580 + 0.490539I$	$2.76633 + 0.06990I$
$u = -0.622131 - 0.231767I$ $a = 0.260574 + 1.086710I$ $b = -1.188230 + 0.194967I$	$1.188580 - 0.490539I$	$2.76633 - 0.06990I$
$u = 0.484230 + 0.413310I$ $a = 0.14617 + 1.58952I$ $b = -0.135120 + 0.584183I$	$0.34718 - 1.92926I$	$-0.50268 + 2.96380I$
$u = 0.484230 - 0.413310I$ $a = 0.14617 - 1.58952I$ $b = -0.135120 - 0.584183I$	$0.34718 + 1.92926I$	$-0.50268 - 2.96380I$
$u = -0.572521$ $a = 0.479617$ $b = -0.464996$	1.36152	7.18480

II.

$$\boldsymbol{I^u_2 = \langle u^3a-u^2a+au-u^2+b-2a+u-1,\ u^3a+2a^2+2au-u^2-2,\ u^4+2u^2+2\rangle}$$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

$$a_{10} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} a \\ -u^3a+u^2a-au+u^2+2a-u+1 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u^2+1 \\ u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} a \\ -u^3a+2u^2a-au+u^2+2a-u+1 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} \frac{1}{2}u^3+a+u \\ u^2a+u^3+u^2+2a+u+1 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} \frac{1}{2}u^3+a+u \\ u^2a+u^3+u^2+2a+u+1 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u \\ u^3+u \end{pmatrix}$$

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

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

$$a_{12} = \begin{pmatrix} \frac{1}{2}u^3+u^2+a+u+1 \\ u^2a+u^3+2u^2+2a+u+1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -4au+4u^2+16$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.455090 + 1.098680I$ $a = 0.833702 - 0.109759I$ $b = 1.354400 + 0.125259I$	$4.11234 - 5.69375I$	$10.00000 + 7.46410I$
$u = 0.455090 + 1.098680I$ $a = -0.511905 - 0.667128I$ $b = -1.16589 - 1.77772I$	$4.11234 - 1.63398I$	$10.00000 + 0.53590I$
$u = 0.455090 - 1.098680I$ $a = 0.833702 + 0.109759I$ $b = 1.354400 - 0.125259I$	$4.11234 + 5.69375I$	$10.00000 - 7.46410I$
$u = 0.455090 - 1.098680I$ $a = -0.511905 + 0.667128I$ $b = -1.16589 + 1.77772I$	$4.11234 + 1.63398I$	$10.00000 - 0.53590I$
$u = -0.455090 + 1.098680I$ $a = -0.833702 - 0.109759I$ $b = 0.377654 - 0.874741I$	$4.11234 + 5.69375I$	$10.00000 - 7.46410I$
$u = -0.455090 + 1.098680I$ $a = 0.511905 - 0.667128I$ $b = -0.56616 - 2.77772I$	$4.11234 + 1.63398I$	$10.00000 - 0.53590I$
$u = -0.455090 - 1.098680I$ $a = -0.833702 + 0.109759I$ $b = 0.377654 + 0.874741I$	$4.11234 - 5.69375I$	$10.00000 + 7.46410I$
$u = -0.455090 - 1.098680I$ $a = 0.511905 + 0.667128I$ $b = -0.56616 + 2.77772I$	$4.11234 - 1.63398I$	$10.00000 + 0.53590I$

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

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 4v + 4$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^v	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$v = 0.500000 + 0.866025I$ $a = 0$ $b = -0.500000 - 0.866025I$	$1.64493 - 2.02988I$	$6.00000 + 3.46410I$
$v = 0.500000 - 0.866025I$ $a = 0$ $b = -0.500000 + 0.866025I$	$1.64493 + 2.02988I$	$6.00000 - 3.46410I$

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u^2-u+1)^5)(u^{67}+38u^{66}+\cdots-4u-1)$
c_2	$((u^2-u+1)^4)(u^2+u+1)(u^{67}-2u^{66}+\cdots+6u-1)$
c_3	$(u^2-u+1)(u^2+u+1)^4(u^{67}+2u^{66}+\cdots+734u-173)$
c_4, c_8	$u^2(u^4-2u^2+2)^2(u^{67}-u^{66}+\cdots-52u-548)$
c_5, c_9	$u^2(u^4+2u^2+2)^2(u^{67}+u^{66}+\cdots-4u-4)$
c_6	$(u^2-u+1)(u^2+u+1)^4(u^{67}-2u^{66}+\cdots+6u-1)$
c_7	$((u-1)^8)(u+1)^2(u^{67}-3u^{66}+\cdots-15u-13)$
c_{10}	$u^2(u^2-2u+2)^4(u^{67}-31u^{66}+\cdots-80u+16)$
c_{11}	$((u+1)^{10})(u^{67}-23u^{66}+\cdots+3501u-169)$
c_{12}	$((u-1)^2)(u+1)^8(u^{67}-3u^{66}+\cdots-15u-13)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y^2+y+1)^5)(y^{67}-10y^{66}+\cdots+84y-1)$
c_2, c_6	$((y^2+y+1)^5)(y^{67}+38y^{66}+\cdots-4y-1)$
c_3	$((y^2+y+1)^5)(y^{67}-58y^{66}+\cdots-506856y-29929)$
c_4, c_8	$y^2(y^2-2y+2)^4(y^{67}-y^{66}+\cdots-3289680y-300304)$
c_5, c_9	$y^2(y^2+2y+2)^4(y^{67}+31y^{66}+\cdots-80y-16)$
c_7, c_{12}	$((y-1)^{10})(y^{67}-23y^{66}+\cdots+3501y-169)$
c_{10}	$y^2(y^2+4)^4(y^{67}+15y^{66}+\cdots-3328y-256)$
c_{11}	$((y-1)^{10})(y^{67}+57y^{66}+\cdots+203921y-28561)$