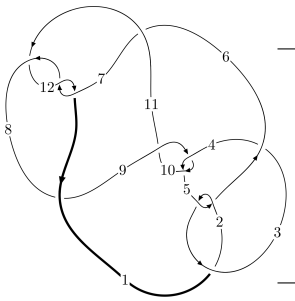
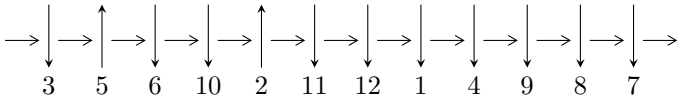
$12a_{0035}$ $(K12a_{0035})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -6u^{93} - 19u^{92} + \cdots + 2b + 4,\ 3u^{93} + 15u^{92} + \cdots + 2a - 8,\ u^{94} + 3u^{93} + \cdots - 4u - 1 \rangle$$
$$I_2^u = \langle -u^2a + b,\ u^2a + a^2 + u^2 + a - u + 2,\ u^3 - u^2 + 2u - 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 100 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. $I_1^u =$
$\langle -6u^{93}-19u^{92}+\cdots+2b+4,\ 3u^{93}+15u^{92}+\cdots+2a-8,\ u^{94}+3u^{93}+\cdots-4u-1\rangle$

(i) Arc colorings

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

$$a_{12} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

$$a_1 = \begin{pmatrix} -u \\ u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -\frac{3}{2}u^{93} - \frac{15}{2}u^{92} + \cdots + \frac{29}{2}u + 4 \\ 3u^{93} + \frac{19}{2}u^{92} + \cdots - \frac{17}{2}u - 2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -\frac{1}{2}u^{93} - \frac{3}{2}u^{92} + \cdots - \frac{47}{2}u^2 + \frac{17}{2}u \\ \frac{1}{2}u^{92} + u^{91} + \cdots - 7u^2 + \frac{3}{2}u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u^4 - u^2 + 1 \\ u^4 + 2u^2 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -u^4 - u^2 + 1 \\ -u^6 - 2u^4 - u^2 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -u^{93} - 9u^{92} + \cdots + 18u + \frac{9}{2} \\ \frac{9}{2}u^{93} + 15u^{92} + \cdots - 17u - \frac{9}{2} \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u^{93} + 3u^{92} + \cdots - 4u - \frac{1}{2} \\ -\frac{3}{2}u^{93} - 3u^{92} + \cdots - 2u - \frac{3}{2} \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} u^{11} + 4u^9 + 4u^7 - 2u^5 - 3u^3 + 2u \\ -u^{11} - 5u^9 - 8u^7 - 3u^5 + 3u^3 + u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 2u^{93} + \frac{15}{2}u^{92} + \cdots - \frac{33}{2}u - \frac{11}{2}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{94}+44u^{93}+\cdots-9u+1$
c_2, c_5	$u^{94}+4u^{93}+\cdots+9u+1$
c_3	$u^{94}-4u^{93}+\cdots-3441u+306$
c_4, c_9	$u^{94}+u^{93}+\cdots-160u-64$
c_6, c_8	$u^{94}+3u^{93}+\cdots-33u-34$
c_7, c_{11}, c_{12}	$u^{94}-3u^{93}+\cdots+4u-1$
c_{10}	$u^{94}+35u^{93}+\cdots+66560u+4096$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{94} + 16y^{93} + \cdots - 369y + 1$
c_2, c_5	$y^{94} + 44y^{93} + \cdots - 9y + 1$
c_3	$y^{94} - 12y^{93} + \cdots - 6463449y + 93636$
c_4, c_9	$y^{94} - 35y^{93} + \cdots - 66560y + 4096$
c_6, c_8	$y^{94} - 53y^{93} + \cdots - 12309y + 1156$
c_7, c_{11}, c_{12}	$y^{94} + 79y^{93} + \cdots - 16y + 1$
c_{10}	$y^{94} + 37y^{93} + \cdots - 336592896y + 16777216$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.351586+1.054580I$ $a=-1.15398+1.86992I$ $b=\ \ 0.313058-0.701062I$	$-1.40013-8.27926I$	0
$u=-0.351586-1.054580I$ $a=-1.15398-1.86992I$ $b=\ \ 0.313058+0.701062I$	$-1.40013+8.27926I$	0
$u=-0.319387+1.064870I$ $a=\ \ 0.60014-1.46592I$ $b=-0.269640+0.910868I$	$0.91044-3.19835I$	0
$u=-0.319387-1.064870I$ $a=\ \ 0.60014+1.46592I$ $b=-0.269640-0.910868I$	$0.91044+3.19835I$	0
$u=\ \ 0.272022+1.136290I$ $a=\ \ 1.42508+2.49568I$ $b=-0.66890-1.54095I$	$0.75736+2.48496I$	0
$u=\ \ 0.272022-1.136290I$ $a=\ \ 1.42508-2.49568I$ $b=-0.66890+1.54095I$	$0.75736-2.48496I$	0
$u=-0.341633+1.119760I$ $a=\ \ 0.36104+1.97232I$ $b=\ \ 0.355067-1.058820I$	$-3.79950-0.44484I$	0
$u=-0.341633-1.119760I$ $a=\ \ 0.36104-1.97232I$ $b=\ \ 0.355067+1.058820I$	$-3.79950+0.44484I$	0
$u=-0.805155+0.159834I$ $a=-0.683311-0.812685I$ $b=\ \ 2.10771-0.56090I$	$-4.13551+12.51930I$	$-12.4410-9.1338I$
$u=-0.805155-0.159834I$ $a=-0.683311+0.812685I$ $b=\ \ 2.10771+0.56090I$	$-4.13551-12.51930I$	$-12.4410+9.1338I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.819292+0.023297I$ $a=-0.557966-0.104325I$ $b=\ \ 2.01706-1.04963I$	$-9.72584+4.11008I$	$-17.4683-3.8689I$
$u=-0.819292-0.023297I$ $a=-0.557966+0.104325I$ $b=\ \ 2.01706+1.04963I$	$-9.72584-4.11008I$	$-17.4683+3.8689I$
$u=-0.223727+1.159260I$ $a=\ \ 0.038821-0.996676I$ $b=-0.793555+1.158040I$	$2.56110-0.96081I$	0
$u=-0.223727-1.159260I$ $a=\ \ 0.038821+0.996676I$ $b=-0.793555-1.158040I$	$2.56110+0.96081I$	0
$u=-0.800713+0.124544I$ $a=\ \ 0.056147-0.232819I$ $b=\ \ 1.45417+0.99662I$	$-6.82446+4.61345I$	$-16.0257-3.7320I$
$u=-0.800713-0.124544I$ $a=\ \ 0.056147+0.232819I$ $b=\ \ 1.45417-0.99662I$	$-6.82446-4.61345I$	$-16.0257+3.7320I$
$u=-0.791562+0.153666I$ $a=\ \ 0.673326+0.346910I$ $b=-1.43596+0.24106I$	$-1.85813+7.30815I$	$-9.64546-5.45633I$
$u=-0.791562-0.153666I$ $a=\ \ 0.673326-0.346910I$ $b=-1.43596-0.24106I$	$-1.85813-7.30815I$	$-9.64546+5.45633I$
$u=-0.795310$ $a=\ \ 0.653225$ $b=-1.34153$	-6.33214	-13.9450
$u=\ \ 0.207009+1.187620I$ $a=-0.54176-1.63085I$ $b=\ \ 0.28783+1.45505I$	$2.77826-1.83941I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.207009 - 1.187620I$ $a = -0.54176 + 1.63085I$ $b = 0.28783 - 1.45505I$	$2.77826 + 1.83941I$	0
$u = 0.763490 + 0.126859I$ $a = 0.996501 - 0.724536I$ $b = -2.36823 - 0.61181I$	$-2.24813 - 6.31785I$	$-11.54818 + 5.93405I$
$u = 0.763490 - 0.126859I$ $a = 0.996501 + 0.724536I$ $b = -2.36823 + 0.61181I$	$-2.24813 + 6.31785I$	$-11.54818 - 5.93405I$
$u = 0.361057 + 0.671513I$ $a = -0.862756 + 0.799832I$ $b = -1.113130 - 0.534733I$	$-0.51313 - 8.14873I$	$-8.97384 + 8.84166I$
$u = 0.361057 - 0.671513I$ $a = -0.862756 - 0.799832I$ $b = -1.113130 + 0.534733I$	$-0.51313 + 8.14873I$	$-8.97384 - 8.84166I$
$u = -0.246747 + 1.213070I$ $a = -0.344077 + 0.628748I$ $b = 1.32614 - 0.49237I$	$1.93636 + 4.08463I$	0
$u = -0.246747 - 1.213070I$ $a = -0.344077 - 0.628748I$ $b = 1.32614 + 0.49237I$	$1.93636 - 4.08463I$	0
$u = -0.742646 + 0.133805I$ $a = 0.305512 - 0.849898I$ $b = -0.247171 - 0.370551I$	$-0.40083 + 4.55861I$	$-9.48261 - 6.77535I$
$u = -0.742646 - 0.133805I$ $a = 0.305512 + 0.849898I$ $b = -0.247171 + 0.370551I$	$-0.40083 - 4.55861I$	$-9.48261 + 6.77535I$
$u = 0.745684 + 0.058825I$ $a = 0.284002 - 0.610144I$ $b = -1.55723 + 1.53202I$	$-4.01862 + 0.63484I$	$-14.7380 - 0.8437I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.745684 - 0.058825I$ $a = 0.284002 + 0.610144I$ $b = -1.55723 - 1.53202I$	$-4.01862 - 0.63484I$	$-14.7380 + 0.8437I$
$u = 0.297640 + 1.220630I$ $a = -0.91602 + 3.00986I$ $b = 0.17095 - 2.37493I$	$-0.46784 - 4.41267I$	0
$u = 0.297640 - 1.220630I$ $a = -0.91602 - 3.00986I$ $b = 0.17095 + 2.37493I$	$-0.46784 + 4.41267I$	0
$u = 0.730077 + 0.133883I$ $a = -0.875274 + 0.280144I$ $b = 1.370320 + 0.318322I$	$-0.21470 - 1.60724I$	$-7.97056 + 1.57129I$
$u = 0.730077 - 0.133883I$ $a = -0.875274 - 0.280144I$ $b = 1.370320 - 0.318322I$	$-0.21470 + 1.60724I$	$-7.97056 - 1.57129I$
$u = -0.717097 + 0.108393I$ $a = 0.308251 + 1.174220I$ $b = 0.130133 + 0.598547I$	$-1.35579 - 0.62536I$	$-12.06986 - 1.95150I$
$u = -0.717097 - 0.108393I$ $a = 0.308251 - 1.174220I$ $b = 0.130133 - 0.598547I$	$-1.35579 + 0.62536I$	$-12.06986 + 1.95150I$
$u = 0.293385 + 0.658021I$ $a = 0.266291 - 0.707620I$ $b = 0.598578 + 0.548638I$	$1.60349 - 3.29234I$	$-5.23174 + 4.77747I$
$u = 0.293385 - 0.658021I$ $a = 0.266291 + 0.707620I$ $b = 0.598578 - 0.548638I$	$1.60349 + 3.29234I$	$-5.23174 - 4.77747I$
$u = -0.365972 + 1.235490I$ $a = -2.15333 + 1.40823I$ $b = 1.72605 - 0.32067I$	$-5.98368 + 0.15479I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.365972-1.235490I$ $a=-2.15333-1.40823I$ $b=\ \ 1.72605+0.32067I$	$-5.98368-0.15479I$	0
$u=\ \ 0.658370+0.267531I$ $a=-0.199386+1.344550I$ $b=-0.308441+0.617622I$	$-1.88023+4.47482I$	$-11.92967-3.68864I$
$u=\ \ 0.658370-0.267531I$ $a=-0.199386-1.344550I$ $b=-0.308441-0.617622I$	$-1.88023-4.47482I$	$-11.92967+3.68864I$
$u=\ \ 0.146043+1.287240I$ $a=-0.519747-0.895621I$ $b=\ \ 0.651519+1.152850I$	$3.09448-2.01504I$	0
$u=\ \ 0.146043-1.287240I$ $a=-0.519747+0.895621I$ $b=\ \ 0.651519-1.152850I$	$3.09448+2.01504I$	0
$u=-0.346129+1.258550I$ $a=\ \ 0.76971-1.71108I$ $b=-0.93264+1.31896I$	$-2.43413+4.11256I$	0
$u=-0.346129-1.258550I$ $a=\ \ 0.76971+1.71108I$ $b=-0.93264-1.31896I$	$-2.43413-4.11256I$	0
$u=\ \ 0.655988+0.207772I$ $a=-0.303076-0.671050I$ $b=\ \ 0.339247-0.122021I$	$0.0223914-0.0925396I$	$-8.17235+0.51763I$
$u=\ \ 0.655988-0.207772I$ $a=-0.303076+0.671050I$ $b=\ \ 0.339247+0.122021I$	$0.0223914+0.0925396I$	$-8.17235-0.51763I$
$u=-0.365714+1.275590I$ $a=-0.53429+2.97606I$ $b=\ \ 1.51702-2.35674I$	$-5.68982+8.37124I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.365714-1.275590I$ $a=-0.53429-2.97606I$ $b=\ \ 1.51702+2.35674I$	$-5.68982-8.37124I$	0
$u=\ \ 0.313278+1.307810I$ $a=\ \ 2.86579+0.42092I$ $b=-2.66846+0.41995I$	$0.25992-3.19129I$	0
$u=\ \ 0.313278-1.307810I$ $a=\ \ 2.86579-0.42092I$ $b=-2.66846-0.41995I$	$0.25992+3.19129I$	0
$u=\ \ 0.367469+0.521123I$ $a=\ \ 0.06904+1.46105I$ $b=-0.348565+0.361785I$	$-2.59885-0.99613I$	$-12.66422+3.51334I$
$u=\ \ 0.367469-0.521123I$ $a=\ \ 0.06904-1.46105I$ $b=-0.348565-0.361785I$	$-2.59885+0.99613I$	$-12.66422-3.51334I$
$u=\ \ 0.070031+1.366780I$ $a=-0.123188-0.592014I$ $b=\ \ 0.264084+1.332300I$	$3.22572-2.28737I$	0
$u=\ \ 0.070031-1.366780I$ $a=-0.123188+0.592014I$ $b=\ \ 0.264084-1.332300I$	$3.22572+2.28737I$	0
$u=-0.305834+1.335140I$ $a=\ \ 0.074584-0.836640I$ $b=-0.89820+1.42609I$	$3.19308+3.09736I$	0
$u=-0.305834-1.335140I$ $a=\ \ 0.074584+0.836640I$ $b=-0.89820-1.42609I$	$3.19308-3.09736I$	0
$u=\ \ 0.538245+0.320223I$ $a=-1.031060-0.094532I$ $b=-0.872555-0.075771I$	$-3.30326-2.28034I$	$-15.1915+4.6781I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.538245 - 0.320223I$ $a = -1.031060 + 0.094532I$ $b = -0.872555 + 0.075771I$	$-3.30326 + 2.28034I$	$-15.1915 - 4.6781I$
$u = 0.025452 + 0.620139I$ $a = -0.742007 - 0.914591I$ $b = -0.346461 + 0.713419I$	$2.38027 - 1.44221I$	$-2.82236 + 3.43033I$
$u = 0.025452 - 0.620139I$ $a = -0.742007 + 0.914591I$ $b = -0.346461 - 0.713419I$	$2.38027 + 1.44221I$	$-2.82236 - 3.43033I$
$u = 0.310881 + 1.345020I$ $a = -1.08999 - 2.22156I$ $b = 1.52900 + 2.06908I$	$4.44484 - 5.39215I$	0
$u = 0.310881 - 1.345020I$ $a = -1.08999 + 2.22156I$ $b = 1.52900 - 2.06908I$	$4.44484 + 5.39215I$	0
$u = -0.016489 + 1.381180I$ $a = -2.02420 + 0.83379I$ $b = 2.94086 - 0.32282I$	$6.88593 + 3.56319I$	0
$u = -0.016489 - 1.381180I$ $a = -2.02420 - 0.83379I$ $b = 2.94086 + 0.32282I$	$6.88593 - 3.56319I$	0
$u = -0.316216 + 1.345920I$ $a = -0.0516053 + 0.0153543I$ $b = 0.676154 - 0.292686I$	$4.26127 + 8.40222I$	0
$u = -0.316216 - 1.345920I$ $a = -0.0516053 - 0.0153543I$ $b = 0.676154 + 0.292686I$	$4.26127 - 8.40222I$	0
$u = 0.325860 + 1.343950I$ $a = 1.91588 + 3.33804I$ $b = -2.93290 - 2.93126I$	$2.38301 - 10.26160I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.325860 - 1.343950I$ $a = 1.91588 - 3.33804I$ $b = -2.93290 + 2.93126I$	$2.38301 + 10.26160I$	0
$u = 0.200914 + 1.368680I$ $a = 1.313830 + 0.182615I$ $b = -1.93679 + 0.32568I$	$1.96196 - 4.91979I$	0
$u = 0.200914 - 1.368680I$ $a = 1.313830 - 0.182615I$ $b = -1.93679 - 0.32568I$	$1.96196 + 4.91979I$	0
$u = -0.344918 + 1.344910I$ $a = -2.19325 + 0.39504I$ $b = 2.16703 + 0.59757I$	$-2.20181 + 8.74640I$	0
$u = -0.344918 - 1.344910I$ $a = -2.19325 - 0.39504I$ $b = 2.16703 - 0.59757I$	$-2.20181 - 8.74640I$	0
$u = 0.003577 + 1.389610I$ $a = 1.11891 - 1.18307I$ $b = -1.65509 + 0.99510I$	$8.44452 - 1.51231I$	0
$u = 0.003577 - 1.389610I$ $a = 1.11891 + 1.18307I$ $b = -1.65509 - 0.99510I$	$8.44452 + 1.51231I$	0
$u = 0.275455 + 1.363070I$ $a = 0.102702 - 0.238819I$ $b = -0.517274 + 0.037833I$	$4.96173 - 3.51095I$	0
$u = 0.275455 - 1.363070I$ $a = 0.102702 + 0.238819I$ $b = -0.517274 - 0.037833I$	$4.96173 + 3.51095I$	0
$u = -0.337562 + 1.359830I$ $a = 1.23843 - 1.96495I$ $b = -1.75415 + 1.70909I$	$2.91527 + 11.38800I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.337562-1.359830I$ $a=\ \ 1.23843+1.96495I$ $b=-1.75415-1.70909I$	$2.91527-11.38800I$	0
$u=\ \ 0.261096+1.380600I$ $a=-0.092849-0.803720I$ $b=\ \ 0.79183+1.51038I$	$3.31639+1.14144I$	0
$u=\ \ 0.261096-1.380600I$ $a=-0.092849+0.803720I$ $b=\ \ 0.79183-1.51038I$	$3.31639-1.14144I$	0
$u=-0.343711+1.364600I$ $a=-1.90058+2.78698I$ $b=\ \ 2.99172-2.39077I$	$0.6743+16.6665I$	0
$u=-0.343711-1.364600I$ $a=-1.90058-2.78698I$ $b=\ \ 2.99172+2.39077I$	$0.6743-16.6665I$	0
$u=\ \ 0.039853+1.411050I$ $a=-0.965916-0.939378I$ $b=\ \ 1.42920+0.68536I$	$8.01316-4.10190I$	0
$u=\ \ 0.039853-1.411050I$ $a=-0.965916+0.939378I$ $b=\ \ 1.42920-0.68536I$	$8.01316+4.10190I$	0
$u=\ \ 0.05124+1.42228I$ $a=\ \ 1.89938+0.53953I$ $b=-2.82345+0.01727I$	$6.06023-9.18761I$	0
$u=\ \ 0.05124-1.42228I$ $a=\ \ 1.89938-0.53953I$ $b=-2.82345-0.01727I$	$6.06023+9.18761I$	0
$u=-0.125946+0.536133I$ $a=\ \ 1.34468+1.38361I$ $b=\ \ 0.933554-0.595599I$	$1.01261+3.21488I$	$-4.87205-3.43985I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.125946-0.536133I$ $a=\ \ 1.34468-1.38361I$ $b=\ \ 0.933554+0.595599I$	$1.01261-3.21488I$	$-4.87205+3.43985I$
$u=\ \ 0.408365$ $a=-0.235762$ $b=\ \ 0.359010$	-0.736099	-13.3290
$u=-0.192609+0.116954I$ $a=\ \ 0.12284+3.63556I$ $b=\ \ 0.351760+0.622816I$	$-0.31015-1.80079I$	$-2.04373+2.87212I$
$u=-0.192609-0.116954I$ $a=\ \ 0.12284-3.63556I$ $b=\ \ 0.351760-0.622816I$	$-0.31015+1.80079I$	$-2.04373-2.87212I$

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

(i) Arc colorings

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

$$a_{12} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

$$a_1 = \begin{pmatrix} -u \\ u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} a \\ u^2a \end{pmatrix}$$

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

$$a_9 = \begin{pmatrix} u \\ u^2 - u + 1 \end{pmatrix}$$

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

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

$$a_4 = \begin{pmatrix} au \\ u^2a - au + a \end{pmatrix}$$

$$a_5 = \begin{pmatrix} au \\ u^2a - au + a \end{pmatrix}$$

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -5u^2a + 3au - 5u^2 - 4a + 5u - 16$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.215080 + 1.307140I$ $a = 0.818128 + 0.292480I$ $b = -1.52448 - 0.02619I$	$3.02413 - 0.79824I$	$-6.43615 - 0.68567I$
$u = 0.215080 + 1.307140I$ $a = -0.155769 - 0.854759I$ $b = 0.73956 + 1.33333I$	$3.02413 - 4.85801I$	$-2.88198 + 6.08229I$
$u = 0.215080 - 1.307140I$ $a = 0.818128 - 0.292480I$ $b = -1.52448 + 0.02619I$	$3.02413 + 0.79824I$	$-6.43615 + 0.68567I$
$u = 0.215080 - 1.307140I$ $a = -0.155769 + 0.854759I$ $b = 0.73956 - 1.33333I$	$3.02413 + 4.85801I$	$-2.88198 - 6.08229I$
$u = 0.569840$ $a = -0.662359 + 1.147240I$ $b = -0.215080 + 0.372529I$	$-1.11345 + 2.02988I$	$-12.18187 - 4.49037I$
$u = 0.569840$ $a = -0.662359 - 1.147240I$ $b = -0.215080 - 0.372529I$	$-1.11345 - 2.02988I$	$-12.18187 + 4.49037I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u^2-u+1)^3)(u^{94}+44u^{93}+\cdots-9u+1)$
c_2	$((u^2+u+1)^3)(u^{94}+4u^{93}+\cdots+9u+1)$
c_3	$((u^2-u+1)^3)(u^{94}-4u^{93}+\cdots-3441u+306)$
c_4, c_9	$u^6(u^{94}+u^{93}+\cdots-160u-64)$
c_5	$((u^2-u+1)^3)(u^{94}+4u^{93}+\cdots+9u+1)$
c_6, c_8	$((u^3+u^2-1)^2)(u^{94}+3u^{93}+\cdots-33u-34)$
c_7	$((u^3-u^2+2u-1)^2)(u^{94}-3u^{93}+\cdots+4u-1)$
c_{10}	$u^6(u^{94}+35u^{93}+\cdots+66560u+4096)$
c_{11}, c_{12}	$((u^3+u^2+2u+1)^2)(u^{94}-3u^{93}+\cdots+4u-1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y^2+y+1)^3)(y^{94}+16y^{93}+\cdots-369y+1)$
c_2, c_5	$((y^2+y+1)^3)(y^{94}+44y^{93}+\cdots-9y+1)$
c_3	$((y^2+y+1)^3)(y^{94}-12y^{93}+\cdots-6463449y+93636)$
c_4, c_9	$y^6(y^{94}-35y^{93}+\cdots-66560y+4096)$
c_6, c_8	$((y^3-y^2+2y-1)^2)(y^{94}-53y^{93}+\cdots-12309y+1156)$
c_7, c_{11}, c_{12}	$((y^3+3y^2+2y-1)^2)(y^{94}+79y^{93}+\cdots-16y+1)$
c_{10}	$y^6(y^{94}+37y^{93}+\cdots-3.36593\times10^8y+1.67772\times10^7)$