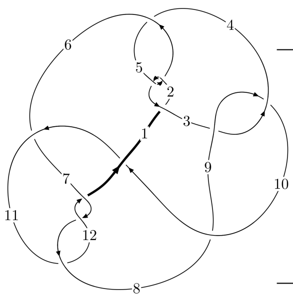
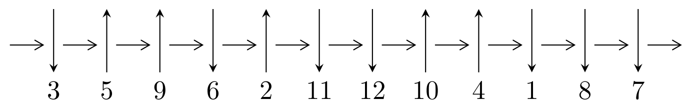
$12a_{0180}$ $(K12a_{0180})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle 40u^{91} + 119u^{90} + \cdots + 4b + 23,\ 27u^{91} + 64u^{90} + \cdots + 4a - 3,\ u^{92} + 4u^{91} + \cdots + 2u + 1\rangle$$
$$I_2^u = \langle -au + b,\ a^3 - a^2u + a^2 + 1,\ u^2 - u + 1\rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 98 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. $\boldsymbol{I_1^u = \langle 40u^{91} + 119u^{90} + \cdots + 4b + 23,\ 27u^{91} + 64u^{90} + \cdots + 4a - 3,\ u^{92} + 4u^{91} + \cdots + 2u + 1\rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^3 \\ u^5 + u^3 + u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -\frac{27}{4}u^{91} - 16u^{90} + \cdots - \frac{25}{2}u + \frac{3}{4} \\ -10u^{91} - \frac{119}{4}u^{90} + \cdots - \frac{53}{4}u - \frac{23}{4} \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -\frac{23}{4}u^{91} - \frac{57}{4}u^{90} + \cdots - \frac{45}{4}u + \frac{3}{2} \\ -5u^{91} - \frac{63}{4}u^{90} + \cdots - \frac{29}{4}u - \frac{19}{4} \end{pmatrix}$$
$$a_7 = \begin{pmatrix} \frac{1}{4}u^{90} + \frac{3}{4}u^{89} + \cdots + \frac{17}{4}u + \frac{1}{4} \\ -\frac{1}{4}u^{91} - u^{90} + \cdots + \frac{1}{2}u - \frac{1}{4} \end{pmatrix}$$
$$a_4 = \begin{pmatrix} u^2 + 1 \\ u^2 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -\frac{25}{4}u^{91} - 12u^{90} + \cdots - \frac{17}{2}u + \frac{21}{4} \\ -13u^{91} - \frac{161}{4}u^{90} + \cdots - \frac{71}{4}u - \frac{25}{4} \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -\frac{9}{4}u^{91} - 12u^{90} + \cdots - \frac{27}{2}u - \frac{19}{4} \\ -2u^{91} - \frac{33}{4}u^{90} + \cdots - \frac{23}{4}u - \frac{21}{4} \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -\frac{7}{2}u^{91} - \frac{23}{2}u^{90} + \cdots - 5u - \frac{3}{2} \\ \frac{5}{4}u^{91} + \frac{5}{4}u^{90} + \cdots + \frac{1}{4}u - \frac{5}{2} \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -8u^{91} - \frac{51}{2}u^{90} + \cdots - 11u - 19$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4	$u^{92} + 32u^{91} + \cdots + 18u + 1$
c_2, c_5	$u^{92} + 4u^{91} + \cdots + 2u + 1$
c_3, c_9	$u^{92} + u^{91} + \cdots + 32u + 64$
c_6	$u^{92} + 3u^{91} + \cdots - 3u + 1$
c_7, c_{11}, c_{12}	$u^{92} - 3u^{91} + \cdots - 5u + 1$
c_8	$u^{92} - 35u^{91} + \cdots - 70656u + 4096$
c_{10}	$u^{92} - 21u^{91} + \cdots - 69583u + 3971$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4	$y^{92} + 60y^{91} + \cdots + 102y + 1$
c_2, c_5	$y^{92} + 32y^{91} + \cdots + 18y + 1$
c_3, c_9	$y^{92} - 35y^{91} + \cdots - 70656y + 4096$
c_6	$y^{92} - y^{91} + \cdots - y + 1$
c_7, c_{11}, c_{12}	$y^{92} + 83y^{91} + \cdots - y + 1$
c_8	$y^{92} + 33y^{91} + \cdots + 368050176y + 16777216$
c_{10}	$y^{92} + 19y^{91} + \cdots + 418605695y + 15768841$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.642901 + 0.753810I$ $a = -0.876838 + 1.051680I$ $b = -0.464572 + 0.257031I$	$1.04598 + 1.86380I$	0
$u = 0.642901 - 0.753810I$ $a = -0.876838 - 1.051680I$ $b = -0.464572 - 0.257031I$	$1.04598 - 1.86380I$	0
$u = 0.749706 + 0.679211I$ $a = -0.90313 + 1.74816I$ $b = -0.562272 + 0.756692I$	$5.20706 - 4.55365I$	0
$u = 0.749706 - 0.679211I$ $a = -0.90313 - 1.74816I$ $b = -0.562272 - 0.756692I$	$5.20706 + 4.55365I$	0
$u = -0.645279 + 0.737552I$ $a = -0.06859 + 2.02630I$ $b = 1.37252 + 1.60110I$	$3.89595 - 4.10626I$	0
$u = -0.645279 - 0.737552I$ $a = -0.06859 - 2.02630I$ $b = 1.37252 - 1.60110I$	$3.89595 + 4.10626I$	0
$u = -0.049139 + 1.019310I$ $a = -0.872887 - 0.623692I$ $b = -0.15815 + 1.67459I$	$-0.33973 - 4.46873I$	0
$u = -0.049139 - 1.019310I$ $a = -0.872887 + 0.623692I$ $b = -0.15815 - 1.67459I$	$-0.33973 + 4.46873I$	0
$u = 0.412618 + 0.938002I$ $a = -0.362557 - 0.742830I$ $b = 0.324219 - 0.150659I$	$-0.51240 + 2.59373I$	0
$u = 0.412618 - 0.938002I$ $a = -0.362557 + 0.742830I$ $b = 0.324219 + 0.150659I$	$-0.51240 - 2.59373I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.712042 + 0.666319I$ $a = 0.75389 - 1.59404I$ $b = 0.428516 - 0.657966I$	$-0.094959 - 1.238240I$	0
$u = 0.712042 - 0.666319I$ $a = 0.75389 + 1.59404I$ $b = 0.428516 + 0.657966I$	$-0.094959 + 1.238240I$	0
$u = -0.728596 + 0.640611I$ $a = 0.81559 + 1.89435I$ $b = 1.46254 + 1.23253I$	$2.50023 + 3.17652I$	0
$u = -0.728596 - 0.640611I$ $a = 0.81559 - 1.89435I$ $b = 1.46254 - 1.23253I$	$2.50023 - 3.17652I$	0
$u = -0.795374 + 0.654252I$ $a = 1.14573 + 1.56142I$ $b = 1.51632 + 1.07301I$	$3.26408 + 3.00564I$	0
$u = -0.795374 - 0.654252I$ $a = 1.14573 - 1.56142I$ $b = 1.51632 - 1.07301I$	$3.26408 - 3.00564I$	0
$u = -0.014222 + 1.030500I$ $a = 0.739894 + 0.598341I$ $b = -0.04915 - 1.60139I$	$-5.29884 - 0.89429I$	0
$u = -0.014222 - 1.030500I$ $a = 0.739894 - 0.598341I$ $b = -0.04915 + 1.60139I$	$-5.29884 + 0.89429I$	0
$u = -0.821306 + 0.634726I$ $a = -1.38974 - 1.60955I$ $b = -1.62649 - 1.06033I$	$1.86179 + 6.99768I$	0
$u = -0.821306 - 0.634726I$ $a = -1.38974 + 1.60955I$ $b = -1.62649 + 1.06033I$	$1.86179 - 6.99768I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.673042 + 0.683931I$ $a = -0.38646 - 1.98387I$ $b = -1.42101 - 1.36108I$	$-0.476840 - 0.461750I$	0
$u = -0.673042 - 0.683931I$ $a = -0.38646 + 1.98387I$ $b = -1.42101 + 1.36108I$	$-0.476840 + 0.461750I$	0
$u = -0.839105 + 0.634467I$ $a = 1.52117 + 1.56007I$ $b = 1.68190 + 1.02254I$	$7.34278 + 10.67130I$	0
$u = -0.839105 - 0.634467I$ $a = 1.52117 - 1.56007I$ $b = 1.68190 - 1.02254I$	$7.34278 - 10.67130I$	0
$u = 0.039095 + 1.055240I$ $a = -0.543732 - 0.565851I$ $b = 0.38416 + 1.48804I$	$-3.00342 + 2.65278I$	0
$u = 0.039095 - 1.055240I$ $a = -0.543732 + 0.565851I$ $b = 0.38416 - 1.48804I$	$-3.00342 - 2.65278I$	0
$u = 0.188853 + 1.042670I$ $a = 0.263413 + 0.793199I$ $b = -0.765362 - 0.731153I$	$3.26367 + 1.72100I$	0
$u = 0.188853 - 1.042670I$ $a = 0.263413 - 0.793199I$ $b = -0.765362 + 0.731153I$	$3.26367 - 1.72100I$	0
$u = 0.721414 + 0.781773I$ $a = 1.32688 - 1.25004I$ $b = 0.798901 - 0.328279I$	$6.63463 + 3.78818I$	0
$u = 0.721414 - 0.781773I$ $a = 1.32688 + 1.25004I$ $b = 0.798901 + 0.328279I$	$6.63463 - 3.78818I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.081609 + 1.063250I$ $a = -0.416314 - 0.600758I$ $b = 0.58404 + 1.31940I$	$-2.82546 + 2.65048I$	0
$u = 0.081609 - 1.063250I$ $a = -0.416314 + 0.600758I$ $b = 0.58404 - 1.31940I$	$-2.82546 - 2.65048I$	0
$u = -0.818744 + 0.695134I$ $a = -1.14533 - 1.17271I$ $b = -1.44066 - 0.90346I$	$9.90058 + 1.48370I$	0
$u = -0.818744 - 0.695134I$ $a = -1.14533 + 1.17271I$ $b = -1.44066 + 0.90346I$	$9.90058 - 1.48370I$	0
$u = 0.099843 + 1.107390I$ $a = 0.291232 + 0.526476I$ $b = -0.88134 - 1.37902I$	$-4.54378 + 6.35161I$	0
$u = 0.099843 - 1.107390I$ $a = 0.291232 - 0.526476I$ $b = -0.88134 + 1.37902I$	$-4.54378 - 6.35161I$	0
$u = 0.426898 + 1.032290I$ $a = 0.518448 + 0.965826I$ $b = -0.611894 + 0.416777I$	$4.53905 + 4.83419I$	0
$u = 0.426898 - 1.032290I$ $a = 0.518448 - 0.965826I$ $b = -0.611894 - 0.416777I$	$4.53905 - 4.83419I$	0
$u = 0.114031 + 1.124140I$ $a = -0.219078 - 0.521026I$ $b = 1.02893 + 1.35358I$	$0.73255 + 9.96253I$	0
$u = 0.114031 - 1.124140I$ $a = -0.219078 + 0.521026I$ $b = 1.02893 - 1.35358I$	$0.73255 - 9.96253I$	0

Solutions to I^u_1	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.772457+0.851923I$ $a=-0.248090+0.203737I$ $b=\ \ 0.364833+0.912372I$	$6.36426-0.95080I$	0
$u=-0.772457-0.851923I$ $a=-0.248090-0.203737I$ $b=\ \ 0.364833-0.912372I$	$6.36426+0.95080I$	0
$u=\ \ 0.637017+0.962931I$ $a=-1.54501-0.19549I$ $b=-0.539132-0.678725I$	$0.37562+3.13774I$	0
$u=\ \ 0.637017-0.962931I$ $a=-1.54501+0.19549I$ $b=-0.539132+0.678725I$	$0.37562-3.13774I$	0
$u=\ \ 0.694063+0.930779I$ $a=\ \ 1.84149-0.23992I$ $b=\ \ 0.901783+0.492338I$	$6.17703+1.63040I$	0
$u=\ \ 0.694063-0.930779I$ $a=\ \ 1.84149+0.23992I$ $b=\ \ 0.901783-0.492338I$	$6.17703-1.63040I$	0
$u=-0.648923+0.963875I$ $a=\ \ 2.28705-0.13460I$ $b=\ \ 1.01494-2.14469I$	$3.17860-0.96592I$	0
$u=-0.648923-0.963875I$ $a=\ \ 2.28705+0.13460I$ $b=\ \ 1.01494+2.14469I$	$3.17860+0.96592I$	0
$u=-0.802483+0.845550I$ $a=-0.0670920-0.0220836I$ $b=-0.473225-0.660175I$	$12.43660+1.84019I$	0
$u=-0.802483-0.845550I$ $a=-0.0670920+0.0220836I$ $b=-0.473225+0.660175I$	$12.43660-1.84019I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.765102 + 0.886692I$ $a = 0.599881 + 0.042043I$ $b = -0.024561 - 0.934324I$	$6.25915 - 4.83547I$	0
$u = -0.765102 - 0.886692I$ $a = 0.599881 - 0.042043I$ $b = -0.024561 + 0.934324I$	$6.25915 + 4.83547I$	0
$u = 0.553881 + 1.032230I$ $a = 1.13450 + 0.85900I$ $b = -0.089633 + 0.904418I$	$-1.78862 + 0.40226I$	0
$u = 0.553881 - 1.032230I$ $a = 1.13450 - 0.85900I$ $b = -0.089633 - 0.904418I$	$-1.78862 - 0.40226I$	0
$u = 0.610961 + 1.007840I$ $a = -1.47890 - 0.58939I$ $b = -0.310480 - 0.915611I$	$0.41714 + 3.43049I$	0
$u = 0.610961 - 1.007840I$ $a = -1.47890 + 0.58939I$ $b = -0.310480 + 0.915611I$	$0.41714 - 3.43049I$	0
$u = -0.660076 + 0.985183I$ $a = -2.30310 - 0.12522I$ $b = -1.23552 + 1.96251I$	$-1.38714 - 4.73913I$	0
$u = -0.660076 - 0.985183I$ $a = -2.30310 + 0.12522I$ $b = -1.23552 - 1.96251I$	$-1.38714 + 4.73913I$	0
$u = 0.536811 + 1.057780I$ $a = -1.05323 - 1.03593I$ $b = 0.274468 - 0.980206I$	$3.32573 - 2.90799I$	0
$u = 0.536811 - 1.057780I$ $a = -1.05323 + 1.03593I$ $b = 0.274468 + 0.980206I$	$3.32573 + 2.90799I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.624857 + 0.519885I$ $a = -0.14823 + 1.43468I$ $b = 0.095485 + 0.593880I$	$1.75392 + 1.44567I$	$0.46845 - 3.19830I$
$u = 0.624857 - 0.519885I$ $a = -0.14823 - 1.43468I$ $b = 0.095485 - 0.593880I$	$1.75392 - 1.44567I$	$0.46845 + 3.19830I$
$u = -0.785281 + 0.904484I$ $a = -0.567595 - 0.371017I$ $b = -0.119757 + 0.699012I$	$12.2566 - 7.7782I$	0
$u = -0.785281 - 0.904484I$ $a = -0.567595 + 0.371017I$ $b = -0.119757 - 0.699012I$	$12.2566 + 7.7782I$	0
$u = 0.672023 + 0.995544I$ $a = 1.91013 + 0.33190I$ $b = 0.739155 + 0.926686I$	$-1.07653 + 6.57366I$	0
$u = 0.672023 - 0.995544I$ $a = 1.91013 - 0.33190I$ $b = 0.739155 - 0.926686I$	$-1.07653 - 6.57366I$	0
$u = 0.736653 + 0.303470I$ $a = 0.66833 + 1.37235I$ $b = 0.734474 + 0.760338I$	$5.51098 + 7.56145I$	$4.66571 - 6.73887I$
$u = 0.736653 - 0.303470I$ $a = 0.66833 - 1.37235I$ $b = 0.734474 - 0.760338I$	$5.51098 - 7.56145I$	$4.66571 + 6.73887I$
$u = -0.674913 + 1.007430I$ $a = 2.31488 + 0.39215I$ $b = 1.45352 - 1.75153I$	$1.41878 - 8.56226I$	0
$u = -0.674913 - 1.007430I$ $a = 2.31488 - 0.39215I$ $b = 1.45352 + 1.75153I$	$1.41878 + 8.56226I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.689741 + 0.998409I$ $a = -2.06247 - 0.29732I$ $b = -0.866938 - 0.961930I$	$4.24777 + 10.04400I$	0
$u = 0.689741 - 0.998409I$ $a = -2.06247 + 0.29732I$ $b = -0.866938 + 0.961930I$	$4.24777 - 10.04400I$	0
$u = 0.691350 + 0.323647I$ $a = -0.472036 - 1.315920I$ $b = -0.615510 - 0.679209I$	$0.16035 + 4.18611I$	$-0.08760 - 7.00112I$
$u = 0.691350 - 0.323647I$ $a = -0.472036 + 1.315920I$ $b = -0.615510 + 0.679209I$	$0.16035 - 4.18611I$	$-0.08760 + 7.00112I$
$u = -0.701167 + 1.022500I$ $a = 2.22562 + 0.67703I$ $b = 1.58021 - 1.43553I$	$2.15321 - 8.65286I$	0
$u = -0.701167 - 1.022500I$ $a = 2.22562 - 0.67703I$ $b = 1.58021 + 1.43553I$	$2.15321 + 8.65286I$	0
$u = -0.725895 + 1.009800I$ $a = -1.95020 - 0.77200I$ $b = -1.39984 + 1.17166I$	$8.94198 - 7.27847I$	0
$u = -0.725895 - 1.009800I$ $a = -1.95020 + 0.77200I$ $b = -1.39984 - 1.17166I$	$8.94198 + 7.27847I$	0
$u = -0.705585 + 1.038540I$ $a = -2.31317 - 0.81730I$ $b = -1.75526 + 1.36554I$	$0.64185 - 12.72570I$	0
$u = -0.705585 - 1.038540I$ $a = -2.31317 + 0.81730I$ $b = -1.75526 - 1.36554I$	$0.64185 + 12.72570I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.712363 + 1.045250I$ $a = 2.32087 + 0.91166I$ $b = 1.82414 - 1.28144I$	$6.0961 - 16.4704I$	0
$u = -0.712363 - 1.045250I$ $a = 2.32087 - 0.91166I$ $b = 1.82414 + 1.28144I$	$6.0961 + 16.4704I$	0
$u = 0.681181 + 0.155183I$ $a = -0.743363 - 0.691642I$ $b = -0.901052 - 0.360806I$	$7.13244 - 0.93823I$	$7.68047 - 0.32038I$
$u = 0.681181 - 0.155183I$ $a = -0.743363 + 0.691642I$ $b = -0.901052 + 0.360806I$	$7.13244 + 0.93823I$	$7.68047 + 0.32038I$
$u = -0.049709 + 0.669880I$ $a = 0.47868 + 1.58539I$ $b = 0.718536 - 0.314667I$	$2.15512 + 1.97107I$	$-2.70295 - 3.91920I$
$u = -0.049709 - 0.669880I$ $a = 0.47868 - 1.58539I$ $b = 0.718536 + 0.314667I$	$2.15512 - 1.97107I$	$-2.70295 + 3.91920I$
$u = 0.566211 + 0.246218I$ $a = 0.240340 + 0.887725I$ $b = 0.601429 + 0.361363I$	$1.35924 + 0.87136I$	$4.15219 - 0.94788I$
$u = 0.566211 - 0.246218I$ $a = 0.240340 - 0.887725I$ $b = 0.601429 - 0.361363I$	$1.35924 - 0.87136I$	$4.15219 + 0.94788I$
$u = -0.340858 + 0.208082I$ $a = 0.08860 + 2.84168I$ $b = 0.482748 + 0.817580I$	$3.41520 - 3.40175I$	$-0.01797 + 2.25502I$
$u = -0.340858 - 0.208082I$ $a = 0.08860 - 2.84168I$ $b = 0.482748 - 0.817580I$	$3.41520 + 3.40175I$	$-0.01797 - 2.25502I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.154137+0.306851I$ $a=\ \ 0.15053-2.39095I$ $b=-0.555962-0.393546I$	$-1.248290-0.494452I$	$-7.01028+0.72799I$
$u=-0.154137-0.306851I$ $a=\ \ 0.15053+2.39095I$ $b=-0.555962+0.393546I$	$-1.248290+0.494452I$	$-7.01028-0.72799I$

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

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= a^2u - 3au - a - 3u - 2$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4, c_5	$(u^2 - u + 1)^3$
c_2	$(u^2 + u + 1)^3$
c_3, c_8, c_9	u^6
c_6, c_{10}	$(u^3 + u^2 - 1)^2$
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_4 c_5	$(y^2 + y + 1)^3$
c_3, c_8, c_9	y^6
c_6, c_{10}	$(y^3 - y^2 + 2y - 1)^2$
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
$u = 0.500000 + 0.866025I$ $a = -1.083790 + 0.387453I$ $b = -0.877439 - 0.744862I$	$3.02413 - 0.79824I$	$1.45566 - 0.28364I$
$u = 0.500000 + 0.866025I$ $a = 0.206350 + 1.132320I$ $b = -0.877439 + 0.744862I$	$3.02413 + 4.85801I$	$-2.09851 - 6.80481I$
$u = 0.500000 + 0.866025I$ $a = 0.377439 - 0.653743I$ $b = 0.754878$	$-1.11345 + 2.02988I$	$-5.85715 - 2.43783I$
$u = 0.500000 - 0.866025I$ $a = -1.083790 - 0.387453I$ $b = -0.877439 + 0.744862I$	$3.02413 + 0.79824I$	$1.45566 + 0.28364I$
$u = 0.500000 - 0.866025I$ $a = 0.206350 - 1.132320I$ $b = -0.877439 - 0.744862I$	$3.02413 - 4.85801I$	$-2.09851 + 6.80481I$
$u = 0.500000 - 0.866025I$ $a = 0.377439 + 0.653743I$ $b = 0.754878$	$-1.11345 - 2.02988I$	$-5.85715 + 2.43783I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_4	$((u^2-u+1)^3)(u^{92}+32u^{91}+\cdots+18u+1)$
c_2	$((u^2+u+1)^3)(u^{92}+4u^{91}+\cdots+2u+1)$
c_3, c_9	$u^6(u^{92}+u^{91}+\cdots+32u+64)$
c_5	$((u^2-u+1)^3)(u^{92}+4u^{91}+\cdots+2u+1)$
c_6	$((u^3+u^2-1)^2)(u^{92}+3u^{91}+\cdots-3u+1)$
c_7	$((u^3-u^2+2u-1)^2)(u^{92}-3u^{91}+\cdots-5u+1)$
c_8	$u^6(u^{92}-35u^{91}+\cdots-70656u+4096)$
c_{10}	$((u^3+u^2-1)^2)(u^{92}-21u^{91}+\cdots-69583u+3971)$
c_{11}, c_{12}	$((u^3+u^2+2u+1)^2)(u^{92}-3u^{91}+\cdots-5u+1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_4	$((y^2+y+1)^3)(y^{92}+60y^{91}+\cdots+102y+1)$
c_2, c_5	$((y^2+y+1)^3)(y^{92}+32y^{91}+\cdots+18y+1)$
c_3, c_9	$y^6(y^{92}-35y^{91}+\cdots-70656y+4096)$
c_6	$((y^3-y^2+2y-1)^2)(y^{92}-y^{91}+\cdots-y+1)$
c_7, c_{11}, c_{12}	$((y^3+3y^2+2y-1)^2)(y^{92}+83y^{91}+\cdots-y+1)$
c_8	$y^6(y^{92}+33y^{91}+\cdots+3.68050\times10^8y+1.67772\times10^7)$
c_{10}	$((y^3-y^2+2y-1)^2)(y^{92}+19y^{91}+\cdots+4.18606\times10^8y+1.57688\times10^7)$