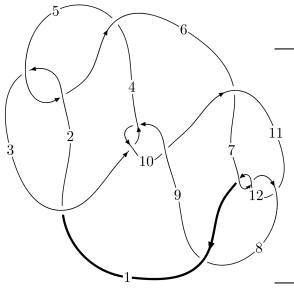
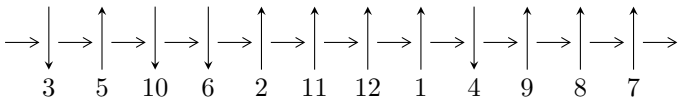
$12a_{0194}$ $(K12a_{0194})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -1.93196 \times 10^{140} u^{86} + 6.66096 \times 10^{139} u^{85} + \cdots + 1.09402 \times 10^{141} b + 3.74745 \times 10^{141},$$
$$1.59602 \times 10^{141} u^{86} - 1.20857 \times 10^{140} u^{85} + \cdots + 2.18804 \times 10^{141} a - 3.03570 \times 10^{142},\ u^{87} - u^{86} + \cdots - 32u$$

$$I_1^v = \langle a,\ v^4 + v^3 + v^2 + b + v + 1,\ v^6 + v^5 + v^4 + 2v^3 + v^2 + 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 93 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. $\boldsymbol{I_1^u = \langle -1.93 \times 10^{140} u^{86} + 6.66 \times 10^{139} u^{85} + \cdots + 1.09 \times 10^{141} b + 3.75 \times 10^{141},\ 1.60 \times 10^{141} u^{86} - 1.21 \times 10^{140} u^{85} + \cdots + 2.19 \times 10^{141} a - 3.04 \times 10^{142},\ u^{87} - u^{86} + \cdots - 32u - 64 \rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_4 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.729429u^{86} + 0.0552353u^{85} + \cdots + 62.6495u + 13.8741 \\ 0.176593u^{86} - 0.0608853u^{85} + \cdots - 15.4584u - 3.42540 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.0681336u^{86} - 0.709362u^{85} + \cdots + 54.5898u + 49.3534 \\ -0.134816u^{86} + 0.459791u^{85} + \cdots - 32.0043u - 32.4889 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.0681336u^{86} - 0.709362u^{85} + \cdots + 54.5898u + 49.3534 \\ -0.398582u^{86} + 0.178985u^{85} + \cdots + 15.8456u - 8.54975 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.0666825u^{86} - 0.249571u^{85} + \cdots + 22.5855u + 16.8646 \\ -0.134816u^{86} + 0.459791u^{85} + \cdots - 32.0043u - 32.4889 \end{pmatrix}$$

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

$$a_{11} = \begin{pmatrix} u^3 \\ u^5 + u^3 + u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.368646u^{86} - 0.527148u^{85} + \cdots + 71.9013u + 40.4381 \\ -0.312704u^{86} + 0.0963934u^{85} + \cdots + 15.1995u - 3.76857 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.439933u^{86} - 0.447080u^{85} + \cdots + 58.1327u + 22.1757 \\ -0.0174712u^{86} + 0.0259493u^{85} + \cdots - 0.972693u - 3.56818 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 0.774940u^{86} - 1.07849u^{85} + \cdots + 41.4842u + 76.3652 \\ -0.00285224u^{86} - 0.0798040u^{85} + \cdots + 8.17160u + 2.44523 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.00629905u^{86} - 0.167117u^{85} + \cdots + 11.7485u + 43.8850$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4	$u^{87} + 30u^{86} + \cdots + 10u - 1$
c_2, c_5	$u^{87} + 4u^{86} + \cdots + 2u + 1$
c_3, c_9	$u^{87} - u^{86} + \cdots - 32u - 64$
c_6, c_8	$u^{87} - 3u^{86} + \cdots + 313u - 73$
c_7, c_{11}, c_{12}	$u^{87} + 3u^{86} + \cdots - u - 1$
c_{10}	$u^{87} - 35u^{86} + \cdots - 44032u + 4096$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4	$y^{87} + 58y^{86} + \cdots + 94y - 1$
c_2, c_5	$y^{87} + 30y^{86} + \cdots + 10y - 1$
c_3, c_9	$y^{87} + 35y^{86} + \cdots - 44032y - 4096$
c_6, c_8	$y^{87} - 51y^{86} + \cdots - 128331y - 5329$
c_7, c_{11}, c_{12}	$y^{87} + 73y^{86} + \cdots - 19y - 1$
c_{10}	$y^{87} + 23y^{86} + \cdots - 99614720y - 16777216$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.611285 + 0.788569I$ $a = 0.917741 + 0.861333I$ $b = -0.082818 + 1.004170I$	$-3.36212 - 2.35337I$	0
$u = 0.611285 - 0.788569I$ $a = 0.917741 - 0.861333I$ $b = -0.082818 - 1.004170I$	$-3.36212 + 2.35337I$	0
$u = 0.443560 + 0.899987I$ $a = 0.644315 - 0.499952I$ $b = -0.526359 - 1.058500I$	$-2.47271 - 2.75618I$	0
$u = 0.443560 - 0.899987I$ $a = 0.644315 + 0.499952I$ $b = -0.526359 + 1.058500I$	$-2.47271 + 2.75618I$	0
$u = 0.767266 + 0.648567I$ $a = 1.04401 + 1.12977I$ $b = 0.055082 + 1.005560I$	$-6.09885 + 4.42777I$	0
$u = 0.767266 - 0.648567I$ $a = 1.04401 - 1.12977I$ $b = 0.055082 - 1.005560I$	$-6.09885 - 4.42777I$	0
$u = 0.277378 + 0.974111I$ $a = -1.10874 - 1.67118I$ $b = 0.716351 + 0.750458I$	$3.27239 + 1.34065I$	0
$u = 0.277378 - 0.974111I$ $a = -1.10874 + 1.67118I$ $b = 0.716351 - 0.750458I$	$3.27239 - 1.34065I$	0
$u = 0.678907 + 0.702812I$ $a = 0.769386 + 0.217668I$ $b = -0.650762 + 0.511807I$	$-4.66548 - 1.46210I$	$0. + 3.02931I$
$u = 0.678907 - 0.702812I$ $a = 0.769386 - 0.217668I$ $b = -0.650762 - 0.511807I$	$-4.66548 + 1.46210I$	$0. - 3.02931I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.768238+0.688700I$ $a=\ \ 0.634804+0.441462I$ $b=-0.618764+1.016630I$	$-6.05440-3.49870I$	0
$u=-0.768238-0.688700I$ $a=\ \ 0.634804-0.441462I$ $b=-0.618764-1.016630I$	$-6.05440+3.49870I$	0
$u=-1.008650+0.241433I$ $a=\ \ 0.684736-0.311760I$ $b=-0.725433-0.765619I$	$0.50208+3.44185I$	0
$u=-1.008650-0.241433I$ $a=\ \ 0.684736+0.311760I$ $b=-0.725433+0.765619I$	$0.50208-3.44185I$	0
$u=\ \ 0.426093+0.859319I$ $a=-3.15793-0.28000I$ $b=\ \ 0.652013-0.953417I$	$-2.63778-0.82623I$	$4.00000+3.60231I$
$u=\ \ 0.426093-0.859319I$ $a=-3.15793+0.28000I$ $b=\ \ 0.652013+0.953417I$	$-2.63778+0.82623I$	$4.00000-3.60231I$
$u=-0.695363+0.644567I$ $a=\ \ 1.10625-1.01304I$ $b=\ \ 0.026957-0.964064I$	$-1.31652-0.83169I$	$1.65300+1.09851I$
$u=-0.695363-0.644567I$ $a=\ \ 1.10625+1.01304I$ $b=\ \ 0.026957+0.964064I$	$-1.31652+0.83169I$	$1.65300-1.09851I$
$u=\ \ 0.520735+0.931628I$ $a=\ \ 0.792847+0.788022I$ $b=-0.164125+1.058190I$	$-3.08368-2.00968I$	0
$u=\ \ 0.520735-0.931628I$ $a=\ \ 0.792847-0.788022I$ $b=-0.164125-1.058190I$	$-3.08368+2.00968I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.005790 + 0.366180I$ $a = 0.691862 + 0.291804I$ $b = -0.735938 + 0.721753I$	$3.86176 + 0.42107I$	0
$u = 1.005790 - 0.366180I$ $a = 0.691862 - 0.291804I$ $b = -0.735938 - 0.721753I$	$3.86176 - 0.42107I$	0
$u = 1.006180 + 0.368157I$ $a = 0.639735 - 0.387808I$ $b = -0.692514 - 0.944335I$	$-0.04609 + 1.98521I$	0
$u = 1.006180 - 0.368157I$ $a = 0.639735 + 0.387808I$ $b = -0.692514 + 0.944335I$	$-0.04609 - 1.98521I$	0
$u = -0.421885 + 0.985583I$ $a = -2.66540 + 0.10722I$ $b = 0.684806 + 0.957414I$	$2.63586 + 4.03889I$	0
$u = -0.421885 - 0.985583I$ $a = -2.66540 - 0.10722I$ $b = 0.684806 - 0.957414I$	$2.63586 - 4.03889I$	0
$u = -0.296732 + 1.041850I$ $a = 0.777629 - 0.073278I$ $b = -0.689752 - 0.183697I$	$0.964622 - 0.562642I$	0
$u = -0.296732 - 1.041850I$ $a = 0.777629 + 0.073278I$ $b = -0.689752 + 0.183697I$	$0.964622 + 0.562642I$	0
$u = -0.331769 + 0.849752I$ $a = 0.664057 + 0.509027I$ $b = -0.498045 + 1.039790I$	$1.93817 - 0.98719I$	$8.58368 - 0.93595I$
$u = -0.331769 - 0.849752I$ $a = 0.664057 - 0.509027I$ $b = -0.498045 - 1.039790I$	$1.93817 + 0.98719I$	$8.58368 + 0.93595I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.019790+0.453057I$ $a=\ \ 0.692708-0.276370I$ $b=-0.751523-0.691973I$	$-0.55415-4.35219I$	0
$u=-1.019790-0.453057I$ $a=\ \ 0.692708+0.276370I$ $b=-0.751523+0.691973I$	$-0.55415+4.35219I$	0
$u=\ \ 0.594895+0.947229I$ $a=-0.324433-1.258840I$ $b=\ \ 0.746602+0.626637I$	$-3.92192-3.46935I$	0
$u=\ \ 0.594895-0.947229I$ $a=-0.324433+1.258840I$ $b=\ \ 0.746602-0.626637I$	$-3.92192+3.46935I$	0
$u=\ \ 0.149465+0.867093I$ $a=\ \ 0.686866-0.538383I$ $b=-0.444261-1.034670I$	$-1.54609+4.58317I$	$5.10158-4.29853I$
$u=\ \ 0.149465-0.867093I$ $a=\ \ 0.686866+0.538383I$ $b=-0.444261+1.034670I$	$-1.54609-4.58317I$	$5.10158+4.29853I$
$u=\ \ 0.411198+1.044420I$ $a=\ \ 0.765130+0.098490I$ $b=-0.714320+0.248220I$	$4.23995-3.36961I$	0
$u=\ \ 0.411198-1.044420I$ $a=\ \ 0.765130-0.098490I$ $b=-0.714320-0.248220I$	$4.23995+3.36961I$	0
$u=-0.740949+0.850608I$ $a=\ \ 0.826055-0.975867I$ $b=-0.041288-1.076880I$	$-9.58781+2.79623I$	0
$u=-0.740949-0.850608I$ $a=\ \ 0.826055+0.975867I$ $b=-0.041288+1.076880I$	$-9.58781-2.79623I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.446275+1.037880I$ $a=-0.71304+1.33524I$ $b=\ \ 0.757142-0.696856I$	$2.32576+2.18173I$	0
$u=-0.446275-1.037880I$ $a=-0.71304-1.33524I$ $b=\ \ 0.757142+0.696856I$	$2.32576-2.18173I$	0
$u=-1.026800+0.483421I$ $a=\ \ 0.628167+0.397780I$ $b=-0.692708+0.975062I$	$3.09256-5.88380I$	0
$u=-1.026800-0.483421I$ $a=\ \ 0.628167-0.397780I$ $b=-0.692708-0.975062I$	$3.09256+5.88380I$	0
$u=-0.233192+0.805989I$ $a=-1.13555+2.48104I$ $b=\ \ 0.652662-0.757523I$	$-2.01462-4.26726I$	$5.97179+2.61130I$
$u=-0.233192-0.805989I$ $a=-1.13555-2.48104I$ $b=\ \ 0.652662+0.757523I$	$-2.01462+4.26726I$	$5.97179-2.61130I$
$u=-0.488848+1.054160I$ $a=\ \ 0.753394-0.112714I$ $b=-0.738176-0.286575I$	$-0.22381+7.35518I$	0
$u=-0.488848-1.054160I$ $a=\ \ 0.753394+0.112714I$ $b=-0.738176+0.286575I$	$-0.22381-7.35518I$	0
$u=-0.607515+0.995263I$ $a=\ \ 0.748024-0.842364I$ $b=-0.136497-1.103500I$	$-0.23467+5.86188I$	0
$u=-0.607515-0.995263I$ $a=\ \ 0.748024+0.842364I$ $b=-0.136497+1.103500I$	$-0.23467-5.86188I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.043830 + 0.551455I$ $a = 0.620829 - 0.402944I$ $b = -0.694009 - 0.993135I$	$-1.46195 + 9.86196I$	0
$u = 1.043830 - 0.551455I$ $a = 0.620829 + 0.402944I$ $b = -0.694009 + 0.993135I$	$-1.46195 - 9.86196I$	0
$u = 0.540953 + 1.061670I$ $a = -2.32849 - 0.37630I$ $b = 0.698997 - 0.991276I$	$1.43879 - 7.72271I$	0
$u = 0.540953 - 1.061670I$ $a = -2.32849 + 0.37630I$ $b = 0.698997 + 0.991276I$	$1.43879 + 7.72271I$	0
$u = -0.657070 + 0.997761I$ $a = -2.30139 + 0.72609I$ $b = 0.677860 + 1.017760I$	$-5.07559 + 8.90900I$	0
$u = -0.657070 - 0.997761I$ $a = -2.30139 - 0.72609I$ $b = 0.677860 - 1.017760I$	$-5.07559 - 8.90900I$	0
$u = 0.668410 + 0.428154I$ $a = 0.670160 - 0.423926I$ $b = -0.603421 - 0.947278I$	$-0.45864 + 3.05031I$	$0.11561 - 3.71074I$
$u = 0.668410 - 0.428154I$ $a = 0.670160 + 0.423926I$ $b = -0.603421 + 0.947278I$	$-0.45864 - 3.05031I$	$0.11561 + 3.71074I$
$u = 0.652989 + 1.019560I$ $a = 0.726453 + 0.866754I$ $b = -0.122757 + 1.123020I$	$-4.94082 - 9.82420I$	0
$u = 0.652989 - 1.019560I$ $a = 0.726453 - 0.866754I$ $b = -0.122757 - 1.123020I$	$-4.94082 + 9.82420I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.527998 + 0.508519I$ $a = 1.38834 + 0.49257I$ $b = 0.025988 + 0.717177I$	$-4.08095 - 1.96025I$	$-2.32551 + 3.82515I$
$u = 0.527998 - 0.508519I$ $a = 1.38834 - 0.49257I$ $b = 0.025988 - 0.717177I$	$-4.08095 + 1.96025I$	$-2.32551 - 3.82515I$
$u = -0.250839 + 0.646005I$ $a = 0.913229 - 0.095011I$ $b = -0.377028 - 0.231372I$	$0.322925 + 0.980399I$	$5.93960 - 6.62047I$
$u = -0.250839 - 0.646005I$ $a = 0.913229 + 0.095011I$ $b = -0.377028 + 0.231372I$	$0.322925 - 0.980399I$	$5.93960 + 6.62047I$
$u = -0.561413 + 1.185130I$ $a = -0.662931 + 0.987024I$ $b = 0.824524 - 0.680211I$	$3.53114 + 2.02176I$	0
$u = -0.561413 - 1.185130I$ $a = -0.662931 - 0.987024I$ $b = 0.824524 + 0.680211I$	$3.53114 - 2.02176I$	0
$u = 0.029916 + 1.327490I$ $a = -1.49885 - 0.68928I$ $b = 0.804293 + 0.856431I$	$6.54252 - 1.34989I$	0
$u = 0.029916 - 1.327490I$ $a = -1.49885 + 0.68928I$ $b = 0.804293 - 0.856431I$	$6.54252 + 1.34989I$	0
$u = 0.047029 + 1.330660I$ $a = -1.59556 + 0.59324I$ $b = 0.798778 - 0.877711I$	$10.37450 - 2.98463I$	0
$u = 0.047029 - 1.330660I$ $a = -1.59556 - 0.59324I$ $b = 0.798778 + 0.877711I$	$10.37450 + 2.98463I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.121603+1.328060I$ $a=-1.68238-0.49161I$ $b=\ 0.792331+0.897528I$	$6.41712+7.31572I$	0
$u=-0.121603-1.328060I$ $a=-1.68238+0.49161I$ $b=\ 0.792331-0.897528I$	$6.41712-7.31572I$	0
$u=\ 0.634374+1.173840I$ $a=-2.00540-0.45132I$ $b=\ 0.722792-1.019870I$	$2.49663-7.82179I$	0
$u=\ 0.634374-1.173840I$ $a=-2.00540+0.45132I$ $b=\ 0.722792+1.019870I$	$2.49663+7.82179I$	0
$u=\ 0.633489+1.184630I$ $a=-0.577053-0.930602I$ $b=\ 0.836929+0.657205I$	$6.44169-6.28675I$	0
$u=\ 0.633489-1.184630I$ $a=-0.577053+0.930602I$ $b=\ 0.836929-0.657205I$	$6.44169+6.28675I$	0
$u=-0.622610+0.177262I$ $a=\ 0.884623+0.156178I$ $b=\ 0.346087-0.160520I$	$-2.55006-3.29913I$	$1.11145+2.49429I$
$u=-0.622610-0.177262I$ $a=\ 0.884623-0.156178I$ $b=\ 0.346087+0.160520I$	$-2.55006+3.29913I$	$1.11145-2.49429I$
$u=-0.679060+1.174990I$ $a=-0.522511+0.901931I$ $b=\ 0.842463-0.641024I$	$1.73423+10.47340I$	0
$u=-0.679060-1.174990I$ $a=-0.522511-0.901931I$ $b=\ 0.842463+0.641024I$	$1.73423-10.47340I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.696216+1.175180I$ $a=-1.94109+0.54914I$ $b=\ 0.720267+1.035200I$	$5.29166+12.11040I$	0
$u=-0.696216-1.175180I$ $a=-1.94109-0.54914I$ $b=\ 0.720267-1.035200I$	$5.29166-12.11040I$	0
$u=\ 0.733904+1.165900I$ $a=-1.91300-0.61390I$ $b=\ 0.716303-1.044050I$	$0.5090-16.2964I$	0
$u=\ 0.733904-1.165900I$ $a=-1.91300+0.61390I$ $b=\ 0.716303+1.044050I$	$0.5090+16.2964I$	0
$u=-0.509418+0.232441I$ $a=\ 0.763520-0.371468I$ $b=-0.541403-0.775770I$	$0.16334+1.55638I$	$-0.76791-2.56835I$
$u=-0.509418-0.232441I$ $a=\ 0.763520+0.371468I$ $b=-0.541403+0.775770I$	$0.16334-1.55638I$	$-0.76791+2.56835I$
$u=\ 0.557201$ $a=\ 0.897719$ $b=\ 0.285348$	1.51878	6.53030

II. $\boldsymbol{I_1^v = \langle a,\ v^4+v^3+v^2+b+v+1,\ v^6+v^5+v^4+2v^3+v^2+1\rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

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

$$a_5 = \begin{pmatrix} 0 \\ -v^4-v^3-v^2-v-1 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 1 \\ v^4+v^3+v^2+v \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -v^4-v^3-v^2-v-1 \\ -v^4-v^3-v^2-v \end{pmatrix}$$

$$a_1 = \begin{pmatrix} v^4+v^3+v^2+v+1 \\ v^4+v^3+v^2+v \end{pmatrix}$$

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

$$a_{11} = \begin{pmatrix} v \\ 0 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -v^4-v \\ -v^4-v^3-v^2-v \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0 \\ -v^5-v^4-v^3-v^2-v \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} v \\ v^4+v^3+v \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -4v^5-9v^4-9v^3-8v^2-6v+1$

(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_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_4 c_5	$(y^2+y+1)^3$
c_3, 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_1^v	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$v = 0.206350 + 1.132320I$ $a = 0$ $b = -0.500000 + 0.866025I$	$-3.02413 - 4.85801I$	$-1.45566 + 6.64456I$
$v = 0.206350 - 1.132320I$ $a = 0$ $b = -0.500000 - 0.866025I$	$-3.02413 + 4.85801I$	$-1.45566 - 6.64456I$
$v = -1.083790 + 0.387453I$ $a = 0$ $b = -0.500000 + 0.866025I$	$-3.02413 + 0.79824I$	$2.09851 + 0.12339I$
$v = -1.083790 - 0.387453I$ $a = 0$ $b = -0.500000 - 0.866025I$	$-3.02413 - 0.79824I$	$2.09851 - 0.12339I$
$v = 0.377439 + 0.653743I$ $a = 0$ $b = -0.500000 - 0.866025I$	$1.11345 + 2.02988I$	$5.85715 - 4.49037I$
$v = 0.377439 - 0.653743I$ $a = 0$ $b = -0.500000 + 0.866025I$	$1.11345 - 2.02988I$	$5.85715 + 4.49037I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_4	$((u^2-u+1)^3)(u^{87}+30u^{86}+\cdots+10u-1)$
c_2	$((u^2+u+1)^3)(u^{87}+4u^{86}+\cdots+2u+1)$
c_3, c_9	$u^6(u^{87}-u^{86}+\cdots-32u-64)$
c_5	$((u^2-u+1)^3)(u^{87}+4u^{86}+\cdots+2u+1)$
c_6, c_8	$((u^3-u^2+1)^2)(u^{87}-3u^{86}+\cdots+313u-73)$
c_7	$((u^3+u^2+2u+1)^2)(u^{87}+3u^{86}+\cdots-u-1)$
c_{10}	$u^6(u^{87}-35u^{86}+\cdots-44032u+4096)$
c_{11}, c_{12}	$((u^3-u^2+2u-1)^2)(u^{87}+3u^{86}+\cdots-u-1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_4	$((y^2+y+1)^3)(y^{87}+58y^{86}+\cdots+94y-1)$
c_2, c_5	$((y^2+y+1)^3)(y^{87}+30y^{86}+\cdots+10y-1)$
c_3, c_9	$y^6(y^{87}+35y^{86}+\cdots-44032y-4096)$
c_6, c_8	$((y^3-y^2+2y-1)^2)(y^{87}-51y^{86}+\cdots-128331y-5329)$
c_7, c_{11}, c_{12}	$((y^3+3y^2+2y-1)^2)(y^{87}+73y^{86}+\cdots-19y-1)$
c_{10}	$y^6(y^{87}+23y^{86}+\cdots-9.96147\times10^7y-1.67772\times10^7)$