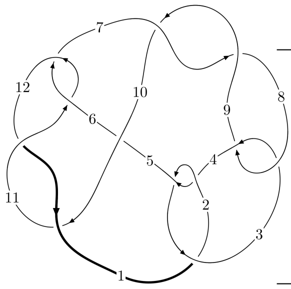
$12a_{0104}$ $(K12a_{0104})$



A knot diagram[1]

Linearized knot diagam

$\downarrow$	$\downarrow$	$\uparrow$	$\downarrow$	$\uparrow$	$\uparrow$	$\uparrow$	$\uparrow$	$\uparrow$	$\uparrow$	$\uparrow$	$\uparrow$
3	5	8	2	10	12	9	4	7	1	6	11

Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 1.99116 \times 10^{67} u^{83} + 1.87216 \times 10^{67} u^{82} + \cdots + 3.81065 \times 10^{67} b + 1.15565 \times 10^{68}, \\ & - 5.13819 \times 10^{68} u^{83} - 8.03748 \times 10^{68} u^{82} + \cdots + 1.52426 \times 10^{68} a + 6.32981 \times 10^{69},\ u^{84} + u^{83} + \cdots - 20u - \end{aligned}$$

$$I_1^v = \langle a,\ v^2 + b - 2v + 1,\ v^3 - 2v^2 + v - 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 87 representations.

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[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.

$\boldsymbol{I_1^u = \langle 1.99\times10^{67}u^{83}+1.87\times10^{67}u^{82}+\cdots+3.81\times10^{67}b+1.16\times10^{68},\ -5.14\times10^{68}u^{83}-8.04\times10^{68}u^{82}+\cdots+1.52\times10^{68}a+6.33\times10^{69},\ u^{84}+u^{83}+\cdots-20u+8\rangle}$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 3.37094u^{83}+5.27304u^{82}+\cdots+31.2513u-41.5271 \\ -0.522525u^{83}-0.491296u^{82}+\cdots+6.19371u-3.03269 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u \\ -u^3+u \end{pmatrix}$$
$$a_2 = \begin{pmatrix} 2.79271u^{83}+4.41807u^{82}+\cdots+23.1737u-32.5566 \\ -0.137145u^{83}+0.0275366u^{82}+\cdots+13.3625u-9.78925 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -1.79356u^{83}-2.91487u^{82}+\cdots-26.3707u+29.3430 \\ -1.57738u^{83}-2.35817u^{82}+\cdots-4.88066u+12.1841 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -u^2+1 \\ u^2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} u^4-u^2+1 \\ -u^4 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -1.41045u^{83}-2.14536u^{82}+\cdots-1.96825u+16.7853 \\ -1.10477u^{83}-1.62406u^{82}+\cdots-14.3843u+13.7098 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 3.89508u^{83}+6.34816u^{82}+\cdots+35.8388u-48.8808 \\ 1.62411u^{83}+2.53617u^{82}+\cdots+13.9325u-10.6569 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -2.67160u^{83}-4.37994u^{82}+\cdots-30.3466u+37.6237 \\ -1.28352u^{83}-1.99642u^{82}+\cdots-5.14258u+10.5210 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 8.77740u^{83}+13.2937u^{82}+\cdots+81.5455u-75.6360$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{84} + 48u^{83} + \cdots + 32u + 1$
c_2, c_4	$u^{84} - 4u^{83} + \cdots + 8u - 1$
c_3, c_8	$u^{84} + u^{83} + \cdots - 20u + 8$
c_5	$u^{84} + 2u^{83} + \cdots - 34883u - 5113$
c_6, c_{11}	$u^{84} - 2u^{83} + \cdots + 3u - 1$
c_7, c_9	$u^{84} - 21u^{83} + \cdots - 1232u + 64$
c_{10}, c_{12}	$u^{84} - 26u^{83} + \cdots + 5u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{84} - 20y^{83} + \cdots - 396y + 1$
c_2, c_4	$y^{84} - 48y^{83} + \cdots - 32y + 1$
c_3, c_8	$y^{84} - 21y^{83} + \cdots - 1232y + 64$
c_5	$y^{84} + 30y^{83} + \cdots - 376788467y + 26142769$
c_6, c_{11}	$y^{84} - 26y^{83} + \cdots + 5y + 1$
c_7, c_9	$y^{84} + 79y^{83} + \cdots - 101632y + 4096$
c_{10}, c_{12}	$y^{84} + 66y^{83} + \cdots + 53y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.944843 + 0.334613I$ $a = -0.979009 - 0.114566I$ $b = 0.193593 - 0.054360I$	$0.240350 + 0.971453I$	0
$u = 0.944843 - 0.334613I$ $a = -0.979009 + 0.114566I$ $b = 0.193593 + 0.054360I$	$0.240350 - 0.971453I$	0
$u = 1.007490 + 0.174190I$ $a = -0.175011 - 0.158006I$ $b = 0.257564 - 0.954127I$	$1.82802 + 0.02599I$	0
$u = 1.007490 - 0.174190I$ $a = -0.175011 + 0.158006I$ $b = 0.257564 + 0.954127I$	$1.82802 - 0.02599I$	0
$u = -0.919921 + 0.321774I$ $a = -0.112585 + 0.178270I$ $b = -0.175048 - 1.006520I$	$0.34357 - 3.75775I$	0
$u = -0.919921 - 0.321774I$ $a = -0.112585 - 0.178270I$ $b = -0.175048 + 1.006520I$	$0.34357 + 3.75775I$	0
$u = -1.015960 + 0.163473I$ $a = 0.823134 + 0.144319I$ $b = 0.048860 + 0.382909I$	$5.40644 - 0.91414I$	0
$u = -1.015960 - 0.163473I$ $a = 0.823134 - 0.144319I$ $b = 0.048860 - 0.382909I$	$5.40644 + 0.91414I$	0
$u = -1.033450 + 0.006740I$ $a = 0.530218 - 0.247157I$ $b = -0.069544 - 0.793657I$	$2.19629 - 4.45888I$	0
$u = -1.033450 - 0.006740I$ $a = 0.530218 + 0.247157I$ $b = -0.069544 + 0.793657I$	$2.19629 + 4.45888I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.020110 + 0.312867I$ $a = 1.044500 + 0.003066I$ $b = 0.0427561 - 0.0679166I$	$1.06655 - 6.25067I$	0
$u = -1.020110 - 0.312867I$ $a = 1.044500 - 0.003066I$ $b = 0.0427561 + 0.0679166I$	$1.06655 + 6.25067I$	0
$u = 0.337186 + 0.860218I$ $a = 0.348190 + 0.078579I$ $b = 0.437219 - 0.299567I$	$-3.13667 - 6.26179I$	$2.84623 + 7.67334I$
$u = 0.337186 - 0.860218I$ $a = 0.348190 - 0.078579I$ $b = 0.437219 + 0.299567I$	$-3.13667 + 6.26179I$	$2.84623 - 7.67334I$
$u = 0.794131 + 0.728423I$ $a = -0.974458 - 0.845826I$ $b = 1.51142 + 0.01992I$	$-0.337519 - 0.141011I$	0
$u = 0.794131 - 0.728423I$ $a = -0.974458 + 0.845826I$ $b = 1.51142 - 0.01992I$	$-0.337519 + 0.141011I$	0
$u = -0.388919 + 0.818219I$ $a = -0.528494 + 0.151733I$ $b = -0.219537 - 0.303501I$	$-3.73082 + 0.85271I$	$1.01297 - 1.85902I$
$u = -0.388919 - 0.818219I$ $a = -0.528494 - 0.151733I$ $b = -0.219537 + 0.303501I$	$-3.73082 - 0.85271I$	$1.01297 + 1.85902I$
$u = 1.046740 + 0.346528I$ $a = 0.304682 - 0.142438I$ $b = 0.289616 - 0.826402I$	$4.27583 + 5.51191I$	0
$u = 1.046740 - 0.346528I$ $a = 0.304682 + 0.142438I$ $b = 0.289616 + 0.826402I$	$4.27583 - 5.51191I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.019520+0.464975I$ $a=-0.631007+0.059771I$ $b=-0.040704-0.556867I$	$-1.53401-5.48411I$	0
$u=-1.019520-0.464975I$ $a=-0.631007-0.059771I$ $b=-0.040704+0.556867I$	$-1.53401+5.48411I$	0
$u=-0.832540+0.791010I$ $a=-1.38296+1.38107I$ $b=\ \ 1.67649+0.32338I$	$-3.97085-1.54693I$	0
$u=-0.832540-0.791010I$ $a=-1.38296-1.38107I$ $b=\ \ 1.67649-0.32338I$	$-3.97085+1.54693I$	0
$u=\ \ 0.849652+0.031157I$ $a=-0.593491-0.039522I$ $b=\ \ 0.386490+0.580423I$	$1.276520-0.101763I$	$8.75991-0.18259I$
$u=\ \ 0.849652-0.031157I$ $a=-0.593491+0.039522I$ $b=\ \ 0.386490-0.580423I$	$1.276520+0.101763I$	$8.75991+0.18259I$
$u=\ \ 1.064990+0.457286I$ $a=\ \ 0.658207-0.090830I$ $b=\ \ 0.215968-0.486348I$	$-0.60235+10.99640I$	0
$u=\ \ 1.064990-0.457286I$ $a=\ \ 0.658207+0.090830I$ $b=\ \ 0.215968+0.486348I$	$-0.60235-10.99640I$	0
$u=\ \ 0.790207+0.858708I$ $a=-0.96570-1.11724I$ $b=\ \ 2.16628+0.31658I$	$-6.55489-4.86996I$	0
$u=\ \ 0.790207-0.858708I$ $a=-0.96570+1.11724I$ $b=\ \ 2.16628-0.31658I$	$-6.55489+4.86996I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.885911 + 0.768881I$ $a = 1.17335 - 0.91320I$ $b = -1.81844 - 0.42053I$	$-3.28211 - 2.90476I$	0
$u = -0.885911 - 0.768881I$ $a = 1.17335 + 0.91320I$ $b = -1.81844 + 0.42053I$	$-3.28211 + 2.90476I$	0
$u = -0.772200 + 0.886697I$ $a = -0.96527 + 1.39186I$ $b = 1.68660 - 0.53395I$	$-3.85417 + 4.39341I$	0
$u = -0.772200 - 0.886697I$ $a = -0.96527 - 1.39186I$ $b = 1.68660 + 0.53395I$	$-3.85417 - 4.39341I$	0
$u = -0.815259 + 0.851759I$ $a = 1.02235 - 1.10450I$ $b = -2.19830 + 0.15039I$	$-7.26044 - 1.06497I$	0
$u = -0.815259 - 0.851759I$ $a = 1.02235 + 1.10450I$ $b = -2.19830 - 0.15039I$	$-7.26044 + 1.06497I$	0
$u = 0.826391 + 0.857345I$ $a = 1.16777 + 1.50281I$ $b = -1.95683 - 0.11611I$	$-7.12683 - 1.45321I$	0
$u = 0.826391 - 0.857345I$ $a = 1.16777 - 1.50281I$ $b = -1.95683 + 0.11611I$	$-7.12683 + 1.45321I$	0
$u = 0.946159 + 0.729920I$ $a = -1.29420 - 0.80499I$ $b = 1.58522 - 0.79508I$	$0.12413 + 5.72559I$	0
$u = 0.946159 - 0.729920I$ $a = -1.29420 + 0.80499I$ $b = 1.58522 + 0.79508I$	$0.12413 - 5.72559I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.179453 + 0.777420I$ $a = 0.311303 - 0.375412I$ $b = 0.438005 + 0.193021I$	$1.30918 - 1.58416I$	$9.83805 + 4.37635I$
$u = 0.179453 - 0.777420I$ $a = 0.311303 + 0.375412I$ $b = 0.438005 - 0.193021I$	$1.30918 + 1.58416I$	$9.83805 - 4.37635I$
$u = -0.883068 + 0.821610I$ $a = -1.54150 + 1.07663I$ $b = 2.76029 - 0.11644I$	$-10.29460 + 0.43264I$	0
$u = -0.883068 - 0.821610I$ $a = -1.54150 - 1.07663I$ $b = 2.76029 + 0.11644I$	$-10.29460 - 0.43264I$	0
$u = -0.710190 + 0.347281I$ $a = -2.27716 + 0.25838I$ $b = -0.234211 + 0.619343I$	$-4.43275 + 1.24589I$	$2.27933 + 1.64914I$
$u = -0.710190 - 0.347281I$ $a = -2.27716 - 0.25838I$ $b = -0.234211 - 0.619343I$	$-4.43275 - 1.24589I$	$2.27933 - 1.64914I$
$u = -0.937545 + 0.765953I$ $a = -1.47040 + 0.78920I$ $b = 1.99452 + 0.20653I$	$-3.64552 - 4.32145I$	0
$u = -0.937545 - 0.765953I$ $a = -1.47040 - 0.78920I$ $b = 1.99452 - 0.20653I$	$-3.64552 + 4.32145I$	0
$u = 0.742303 + 0.267678I$ $a = 2.46612 + 0.22285I$ $b = 0.453650 + 0.593662I$	$-4.02469 + 4.17427I$	$4.30501 - 7.15131I$
$u = 0.742303 - 0.267678I$ $a = 2.46612 - 0.22285I$ $b = 0.453650 - 0.593662I$	$-4.02469 - 4.17427I$	$4.30501 + 7.15131I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.910182 + 0.812566I$ $a = -1.49098 + 1.66207I$ $b = 2.25259 + 0.65273I$	$-10.20980 - 6.53851I$	0
$u = -0.910182 - 0.812566I$ $a = -1.49098 - 1.66207I$ $b = 2.25259 - 0.65273I$	$-10.20980 + 6.53851I$	0
$u = 0.899767 + 0.828154I$ $a = 1.59727 + 1.03673I$ $b = -2.77141 + 0.08624I$	$-10.97060 + 5.59094I$	0
$u = 0.899767 - 0.828154I$ $a = 1.59727 - 1.03673I$ $b = -2.77141 - 0.08624I$	$-10.97060 - 5.59094I$	0
$u = 0.901036 + 0.828606I$ $a = 1.42088 + 1.67116I$ $b = -2.30109 + 0.49063I$	$-10.96750 + 0.58518I$	0
$u = 0.901036 - 0.828606I$ $a = 1.42088 - 1.67116I$ $b = -2.30109 - 0.49063I$	$-10.96750 - 0.58518I$	0
$u = 0.822519 + 0.932893I$ $a = 0.91684 + 1.64748I$ $b = -2.25077 - 0.72210I$	$-10.83780 - 3.57887I$	0
$u = 0.822519 - 0.932893I$ $a = 0.91684 - 1.64748I$ $b = -2.25077 + 0.72210I$	$-10.83780 + 3.57887I$	0
$u = -0.810693 + 0.944952I$ $a = -0.85275 + 1.63282I$ $b = 2.19212 - 0.87271I$	$-10.04530 + 9.52899I$	0
$u = -0.810693 - 0.944952I$ $a = -0.85275 - 1.63282I$ $b = 2.19212 + 0.87271I$	$-10.04530 - 9.52899I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.066113+0.750316I$ $a=\ \ 0.110116-0.634486I$ $b=\ \ 0.213608+0.726049I$	$-2.03059+2.74891I$	$4.68139-1.77818I$
$u=-0.066113-0.750316I$ $a=\ \ 0.110116+0.634486I$ $b=\ \ 0.213608-0.726049I$	$-2.03059-2.74891I$	$4.68139+1.77818I$
$u=-0.968832+0.798968I$ $a=\ \ 1.37635-0.95784I$ $b=-2.05317-0.97229I$	$-6.78392-5.08439I$	0
$u=-0.968832-0.798968I$ $a=\ \ 1.37635+0.95784I$ $b=-2.05317+0.97229I$	$-6.78392+5.08439I$	0
$u=\ \ 0.965716+0.805863I$ $a=\ \ 1.65828+0.77345I$ $b=-2.23791+0.67188I$	$-6.69081+7.64283I$	0
$u=\ \ 0.965716-0.805863I$ $a=\ \ 1.65828-0.77345I$ $b=-2.23791-0.67188I$	$-6.69081-7.64283I$	0
$u=\ \ 0.985942+0.791492I$ $a=-1.41550-0.93253I$ $b=\ \ 1.99222-1.10077I$	$-5.94934+11.01360I$	0
$u=\ \ 0.985942-0.791492I$ $a=-1.41550+0.93253I$ $b=\ \ 1.99222+1.10077I$	$-5.94934-11.01360I$	0
$u=-0.647382+0.314500I$ $a=\ \ 0.331197+0.827943I$ $b=-0.58409-1.80025I$	$-4.64480-3.92489I$	$3.17496+9.60631I$
$u=-0.647382-0.314500I$ $a=\ \ 0.331197-0.827943I$ $b=-0.58409+1.80025I$	$-4.64480+3.92489I$	$3.17496-9.60631I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.004740 + 0.795428I$ $a = -1.69928 + 0.61945I$ $b = 1.90772 + 0.99106I$	$-3.12969 - 10.62390I$	0
$u = -1.004740 - 0.795428I$ $a = -1.69928 - 0.61945I$ $b = 1.90772 - 0.99106I$	$-3.12969 + 10.62390I$	0
$u = 0.164668 + 0.688630I$ $a = -0.154369 - 0.645027I$ $b = 0.037509 + 0.772539I$	$-2.20909 + 2.50520I$	$4.04658 - 4.39330I$
$u = 0.164668 - 0.688630I$ $a = -0.154369 + 0.645027I$ $b = 0.037509 - 0.772539I$	$-2.20909 - 2.50520I$	$4.04658 + 4.39330I$
$u = 1.008710 + 0.840149I$ $a = 1.86319 + 0.69471I$ $b = -2.33246 + 1.32376I$	$-10.2365 + 10.1066I$	0
$u = 1.008710 - 0.840149I$ $a = 1.86319 - 0.69471I$ $b = -2.33246 - 1.32376I$	$-10.2365 - 10.1066I$	0
$u = -1.020970 + 0.838580I$ $a = -1.88269 + 0.64828I$ $b = 2.23100 + 1.44321I$	$-9.3654 - 16.0858I$	0
$u = -1.020970 - 0.838580I$ $a = -1.88269 - 0.64828I$ $b = 2.23100 - 1.44321I$	$-9.3654 + 16.0858I$	0
$u = 0.618250 + 0.265447I$ $a = -0.514034 + 0.791465I$ $b = 0.89045 - 1.74001I$	$-4.45560 - 1.93655I$	$4.71213 - 4.39943I$
$u = 0.618250 - 0.265447I$ $a = -0.514034 - 0.791465I$ $b = 0.89045 + 1.74001I$	$-4.45560 + 1.93655I$	$4.71213 + 4.39943I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.622760$ $a = \quad 2.68748$ $b = \quad 0.499429$	0.0915949	15.1660
$u = -0.273077 + 0.514248I$ $a = -1.087230 - 0.760616I$ $b = -0.102496 + 0.170604I$	$-1.66765 + 0.61770I$	$-3.60063 - 1.02986I$
$u = -0.273077 - 0.514248I$ $a = -1.087230 + 0.760616I$ $b = -0.102496 - 0.170604I$	$-1.66765 - 0.61770I$	$-3.60063 + 1.02986I$
$u = \quad 0.458074$ $a = -0.459214$ $b = \quad 0.469056$	0.847284	12.0560

II. $I_1^v = \langle a,\ v^2 + b - 2v + 1,\ v^3 - 2v^2 + v - 1 \rangle$

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -2v^2 + 5v - 1$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^v	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$v = 0.122561 + 0.744862I$ $a = 0$ $b = -0.215080 + 1.307140I$	$-4.66906 - 2.82812I$	$0.69240 + 3.35914I$
$v = 0.122561 - 0.744862I$ $a = 0$ $b = -0.215080 - 1.307140I$	$-4.66906 + 2.82812I$	$0.69240 - 3.35914I$
$v = 1.75488$ $a = 0$ $b = -0.569840$	-0.531480	1.61520

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u-1)^3)(u^{84}+48u^{83}+\cdots+32u+1)$
c_2	$((u-1)^3)(u^{84}-4u^{83}+\cdots+8u-1)$
c_3, c_8	$u^3(u^{84}+u^{83}+\cdots-20u+8)$
c_4	$((u+1)^3)(u^{84}-4u^{83}+\cdots+8u-1)$
c_5	$(u^3+u^2+2u+1)(u^{84}+2u^{83}+\cdots-34883u-5113)$
c_6	$(u^3-u^2+1)(u^{84}-2u^{83}+\cdots+3u-1)$
c_7, c_9	$u^3(u^{84}-21u^{83}+\cdots-1232u+64)$
c_{10}	$(u^3+u^2+2u+1)(u^{84}-26u^{83}+\cdots+5u+1)$
c_{11}	$(u^3+u^2-1)(u^{84}-2u^{83}+\cdots+3u-1)$
c_{12}	$(u^3-u^2+2u-1)(u^{84}-26u^{83}+\cdots+5u+1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y-1)^3)(y^{84}-20y^{83}+\cdots-396y+1)$
c_2, c_4	$((y-1)^3)(y^{84}-48y^{83}+\cdots-32y+1)$
c_3, c_8	$y^3(y^{84}-21y^{83}+\cdots-1232y+64)$
c_5	$(y^3+3y^2+2y-1)(y^{84}+30y^{83}+\cdots-3.76788\times 10^8 y+2.61428\times 10^7)$
c_6, c_{11}	$(y^3-y^2+2y-1)(y^{84}-26y^{83}+\cdots+5y+1)$
c_7, c_9	$y^3(y^{84}+79y^{83}+\cdots-101632y+4096)$
c_{10}, c_{12}	$(y^3+3y^2+2y-1)(y^{84}+66y^{83}+\cdots+53y+1)$