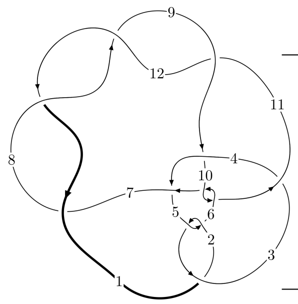
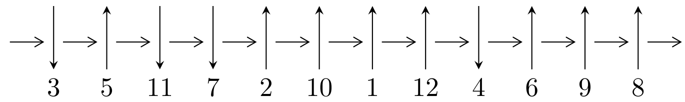
$12a_{0201}$ ($K12a_{0201}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle &-3.58867 \times 10^{91} u^{83} + 1.02171 \times 10^{92} u^{82} + \cdots + 1.57098 \times 10^{92} b - 1.00231 \times 10^{92}, \\ &- 1.83263 \times 10^{92} u^{83} + 5.48113 \times 10^{92} u^{82} + \cdots + 1.57098 \times 10^{92} a + 7.20038 \times 10^{92},\ u^{84} - 3u^{83} + \cdots - 3u - \\ I_2^u = \langle &u^2 a + b,\ -10u^2 a + 25a^2 + 5au + 13u^2 - 15a + 6u + 17,\ u^3 + u^2 + 2u + 1\rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 90 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.

$\boldsymbol{I_1^u = \langle -3.59\times10^{91}u^{83}+1.02\times10^{92}u^{82}+\cdots+1.57\times10^{92}b-1.00\times10^{92},\ -1.83\times10^{92}u^{83}+5.48\times10^{92}u^{82}+\cdots+1.57\times10^{92}a+7.20\times10^{92},\ u^{84}-3u^{83}+\cdots-3u+1\rangle}$

(i) Arc colorings

$$a_8 = \begin{pmatrix}1\\0\end{pmatrix}$$

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

$$a_4 = \begin{pmatrix}1.16655u^{83} - 3.48898u^{82} + \cdots + 6.40630u - 4.58336\\0.228435u^{83} - 0.650361u^{82} + \cdots + 0.796213u + 0.638014\end{pmatrix}$$

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

$$a_{10} = \begin{pmatrix}0.00496120u^{83} + 0.0416024u^{82} + \cdots - 0.527099u - 0.844089\\0.0803009u^{83} - 0.303932u^{82} + \cdots + 0.736204u + 0.163754\end{pmatrix}$$

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

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

$$a_5 = \begin{pmatrix}0.869710u^{83} - 2.51392u^{82} + \cdots + 3.61734u - 4.81101\\0.108064u^{83} + 0.181385u^{82} + \cdots - 0.185590u + 1.02410\end{pmatrix}$$

$$a_6 = \begin{pmatrix}-0.163754u^{83} + 0.571563u^{82} + \cdots - 3.05646u + 1.22747\\-0.0564860u^{83} + 0.102861u^{82} + \cdots + 0.829205u + 0.00496120\end{pmatrix}$$

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

$$a_3 = \begin{pmatrix}0.835016u^{83} - 2.40727u^{82} + \cdots + 5.41664u - 4.56959\\0.175384u^{83} - 0.0477895u^{82} + \cdots + 1.19301u + 0.711354\end{pmatrix}$$

$$a_2 = \begin{pmatrix}-0.667963u^{83} + 1.84046u^{82} + \cdots - 5.88896u - 1.51691\\-0.0928646u^{83} + 0.425791u^{82} + \cdots + 3.33040u - 0.355437\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 2.16495u^{83} - 5.74232u^{82} + \cdots + 10.7785u - 2.44552$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{84} + 40u^{83} + \cdots + 3294u + 625$
c_2, c_5	$u^{84} + 4u^{83} + \cdots + 166u + 25$
c_3	$25(25u^{84} + 105u^{83} + \cdots - 18688u + 2563)$
c_4	$25(25u^{84} + 10u^{83} + \cdots + 227461u + 20617)$
c_6, c_{10}	$u^{84} - 3u^{83} + \cdots - 3u + 1$
c_7, c_8, c_{11} c_{12}	$u^{84} + 3u^{83} + \cdots + 3u + 1$
c_9	$u^{84} - u^{83} + \cdots + 8800u + 8000$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{84} + 12y^{83} + \cdots - 3086686y + 390625$
c_2, c_5	$y^{84} + 40y^{83} + \cdots + 3294y + 625$
c_3	$625(625y^{84} - 31725y^{83} + \cdots - 1.22498 \times 10^{8}y + 6568969)$
c_4	$625(625y^{84} - 13650y^{83} + \cdots - 5.34301 \times 10^{10}y + 4.25061 \times 10^{8})$
c_6, c_{10}	$y^{84} + 47y^{83} + \cdots + 19y + 1$
c_7, c_8, c_{11} c_{12}	$y^{84} + 99y^{83} + \cdots + 19y + 1$
c_9	$y^{84} - 35y^{83} + \cdots - 789120000y + 64000000$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.559377 + 0.850834I$ $a = -1.34504 - 0.79140I$ $b = -0.0424165 + 0.1039430I$	$-5.4555 + 13.7745I$	0
$u = 0.559377 - 0.850834I$ $a = -1.34504 + 0.79140I$ $b = -0.0424165 - 0.1039430I$	$-5.4555 - 13.7745I$	0
$u = -0.603908 + 0.839047I$ $a = 0.818244 - 0.598416I$ $b = -0.0640806 + 0.0705229I$	$-1.66257 - 7.72348I$	0
$u = -0.603908 - 0.839047I$ $a = 0.818244 + 0.598416I$ $b = -0.0640806 - 0.0705229I$	$-1.66257 + 7.72348I$	0
$u = 0.354001 + 0.884267I$ $a = -1.44947 - 0.48407I$ $b = 0.151051 - 0.266514I$	$-8.77859 + 4.94528I$	0
$u = 0.354001 - 0.884267I$ $a = -1.44947 + 0.48407I$ $b = 0.151051 + 0.266514I$	$-8.77859 - 4.94528I$	0
$u = 0.501059 + 0.802771I$ $a = 1.45664 + 0.76972I$ $b = -0.0915011 - 0.0759455I$	$-3.02003 + 8.18197I$	0
$u = 0.501059 - 0.802771I$ $a = 1.45664 - 0.76972I$ $b = -0.0915011 + 0.0759455I$	$-3.02003 - 8.18197I$	0
$u = 0.575841 + 0.733284I$ $a = -0.084003 - 1.043710I$ $b = 0.182438 - 0.080722I$	$-7.12558 + 2.31715I$	0
$u = 0.575841 - 0.733284I$ $a = -0.084003 + 1.043710I$ $b = 0.182438 + 0.080722I$	$-7.12558 - 2.31715I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.352613 + 0.849364I$ $a = 0.561264 + 1.147210I$ $b = 0.162827 + 0.112680I$	$-3.83598 - 0.83646I$	0
$u = 0.352613 - 0.849364I$ $a = 0.561264 - 1.147210I$ $b = 0.162827 - 0.112680I$	$-3.83598 + 0.83646I$	0
$u = -0.059146 + 1.084560I$ $a = 0.794617 + 0.270479I$ $b = 0.322778 - 0.026997I$	$-3.51431 - 1.41708I$	0
$u = -0.059146 - 1.084560I$ $a = 0.794617 - 0.270479I$ $b = 0.322778 + 0.026997I$	$-3.51431 + 1.41708I$	0
$u = -0.505379 + 0.743093I$ $a = -0.966789 + 0.597818I$ $b = 0.0998708 + 0.0522679I$	$0.26259 - 2.97021I$	0
$u = -0.505379 - 0.743093I$ $a = -0.966789 - 0.597818I$ $b = 0.0998708 - 0.0522679I$	$0.26259 + 2.97021I$	0
$u = 0.498502 + 0.985151I$ $a = -0.394841 - 0.857254I$ $b = -0.080456 + 0.122688I$	$-6.24548 - 5.02549I$	0
$u = 0.498502 - 0.985151I$ $a = -0.394841 + 0.857254I$ $b = -0.080456 - 0.122688I$	$-6.24548 + 5.02549I$	0
$u = -0.823438 + 0.141577I$ $a = 0.235246 + 0.004564I$ $b = 0.607378 - 0.197816I$	$0.48308 + 2.97342I$	0
$u = -0.823438 - 0.141577I$ $a = 0.235246 - 0.004564I$ $b = 0.607378 + 0.197816I$	$0.48308 - 2.97342I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.350172 + 1.132160I$ $a = 0.625704 - 0.237671I$ $b = 0.198471 + 0.000769I$	$-3.54157 - 1.27620I$	0
$u = -0.350172 - 1.132160I$ $a = 0.625704 + 0.237671I$ $b = 0.198471 - 0.000769I$	$-3.54157 + 1.27620I$	0
$u = 0.774229 + 0.059652I$ $a = -0.319713 - 0.244575I$ $b = -0.930111 - 0.495675I$	$-3.06074 - 9.34032I$	$1.08705 + 7.00360I$
$u = 0.774229 - 0.059652I$ $a = -0.319713 + 0.244575I$ $b = -0.930111 + 0.495675I$	$-3.06074 + 9.34032I$	$1.08705 - 7.00360I$
$u = -0.057154 + 0.759277I$ $a = 2.92385 - 0.76517I$ $b = 1.44744 - 0.65670I$	$-2.74047 - 1.50981I$	$-1.82977 + 7.34075I$
$u = -0.057154 - 0.759277I$ $a = 2.92385 + 0.76517I$ $b = 1.44744 + 0.65670I$	$-2.74047 + 1.50981I$	$-1.82977 - 7.34075I$
$u = -0.283084 + 0.680233I$ $a = 0.176113 + 0.832722I$ $b = 0.305432 - 1.203210I$	$-3.10028 - 5.80914I$	$-1.88912 + 10.77046I$
$u = -0.283084 - 0.680233I$ $a = 0.176113 - 0.832722I$ $b = 0.305432 + 1.203210I$	$-3.10028 + 5.80914I$	$-1.88912 - 10.77046I$
$u = -0.663601 + 0.245565I$ $a = -0.299112 + 0.012132I$ $b = -0.426042 + 0.391408I$	$1.80973 - 0.97588I$	$6.29958 - 0.92330I$
$u = -0.663601 - 0.245565I$ $a = -0.299112 - 0.012132I$ $b = -0.426042 - 0.391408I$	$1.80973 + 0.97588I$	$6.29958 + 0.92330I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.666820 + 0.079514I$ $a = 0.382678 + 0.101341I$ $b = 0.868529 + 0.564372I$	$-0.84887 - 4.24920I$	$4.48446 + 3.03882I$
$u = 0.666820 - 0.079514I$ $a = 0.382678 - 0.101341I$ $b = 0.868529 - 0.564372I$	$-0.84887 + 4.24920I$	$4.48446 - 3.03882I$
$u = 0.627872 + 0.171062I$ $a = -0.669086 + 0.483574I$ $b = -0.703760 + 0.442978I$	$-5.54769 + 1.76630I$	$-2.07508 - 2.33583I$
$u = 0.627872 - 0.171062I$ $a = -0.669086 - 0.483574I$ $b = -0.703760 - 0.442978I$	$-5.54769 - 1.76630I$	$-2.07508 + 2.33583I$
$u = 0.196060 + 0.617529I$ $a = 1.239230 - 0.333181I$ $b = -0.247349 - 1.018570I$	$-0.71568 + 3.16029I$	$2.36917 - 2.88022I$
$u = 0.196060 - 0.617529I$ $a = 1.239230 + 0.333181I$ $b = -0.247349 + 1.018570I$	$-0.71568 - 3.16029I$	$2.36917 + 2.88022I$
$u = -0.181114 + 0.588314I$ $a = -2.47298 + 3.00036I$ $b = -1.47689 + 0.99560I$	$-3.13471 + 1.93596I$	$4.26373 + 2.32250I$
$u = -0.181114 - 0.588314I$ $a = -2.47298 - 3.00036I$ $b = -1.47689 - 0.99560I$	$-3.13471 - 1.93596I$	$4.26373 - 2.32250I$
$u = -0.285706 + 1.360680I$ $a = -0.240060 + 0.370676I$ $b = -0.219517 + 0.162799I$	$-3.25781 - 4.38865I$	0
$u = -0.285706 - 1.360680I$ $a = -0.240060 - 0.370676I$ $b = -0.219517 - 0.162799I$	$-3.25781 + 4.38865I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.273958 + 0.517742I$ $a = 2.14473 + 0.91311I$ $b = -0.732241 - 0.347542I$	$-0.27546 + 3.96105I$	$3.31158 - 10.67062I$
$u = 0.273958 - 0.517742I$ $a = 2.14473 - 0.91311I$ $b = -0.732241 + 0.347542I$	$-0.27546 - 3.96105I$	$3.31158 + 10.67062I$
$u = -0.278794 + 0.406348I$ $a = -1.60602 + 0.57998I$ $b = 0.281917 + 0.460637I$	$0.456460 - 1.219620I$	$6.20987 + 4.56453I$
$u = -0.278794 - 0.406348I$ $a = -1.60602 - 0.57998I$ $b = 0.281917 - 0.460637I$	$0.456460 + 1.219620I$	$6.20987 - 4.56453I$
$u = -0.293880 + 0.377603I$ $a = -1.078430 - 0.084585I$ $b = 0.042583 + 0.717975I$	$0.538633 - 1.103160I$	$7.21508 + 6.37604I$
$u = -0.293880 - 0.377603I$ $a = -1.078430 + 0.084585I$ $b = 0.042583 - 0.717975I$	$0.538633 + 1.103160I$	$7.21508 - 6.37604I$
$u = -0.00893 + 1.56295I$ $a = 0.97735 + 1.24513I$ $b = 1.66511 + 1.48668I$	$-6.12688 - 1.59937I$	0
$u = -0.00893 - 1.56295I$ $a = 0.97735 - 1.24513I$ $b = 1.66511 - 1.48668I$	$-6.12688 + 1.59937I$	0
$u = -0.01945 + 1.57262I$ $a = 1.93490 + 0.40789I$ $b = 3.50479 + 0.31797I$	$-6.44558 - 1.79187I$	0
$u = -0.01945 - 1.57262I$ $a = 1.93490 - 0.40789I$ $b = 3.50479 - 0.31797I$	$-6.44558 + 1.79187I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.04000 + 1.57921I$ $a = -2.69888 - 0.37859I$ $b = -4.75339 - 0.35957I$	$-7.51330 + 4.86891I$	0
$u = 0.04000 - 1.57921I$ $a = -2.69888 + 0.37859I$ $b = -4.75339 + 0.35957I$	$-7.51330 - 4.86891I$	0
$u = -0.01120 + 1.58483I$ $a = -0.33329 - 1.70734I$ $b = -0.40623 - 4.78895I$	$-10.56600 + 1.42603I$	0
$u = -0.01120 - 1.58483I$ $a = -0.33329 + 1.70734I$ $b = -0.40623 + 4.78895I$	$-10.56600 - 1.42603I$	0
$u = 0.288131 + 0.291830I$ $a = -0.748039 - 1.103380I$ $b = 0.695579 + 0.725202I$	$0.29629 - 1.71529I$	$6.13579 + 1.42425I$
$u = 0.288131 - 0.291830I$ $a = -0.748039 + 1.103380I$ $b = 0.695579 - 0.725202I$	$0.29629 + 1.71529I$	$6.13579 - 1.42425I$
$u = 0.04376 + 1.60820I$ $a = -1.102070 - 0.442715I$ $b = -2.15482 + 0.08868I$	$-8.48978 + 3.97458I$	0
$u = 0.04376 - 1.60820I$ $a = -1.102070 + 0.442715I$ $b = -2.15482 - 0.08868I$	$-8.48978 - 3.97458I$	0
$u = -0.06572 + 1.61236I$ $a = 0.25388 - 1.78486I$ $b = 0.55057 - 2.45686I$	$-11.01890 - 7.03717I$	0
$u = -0.06572 - 1.61236I$ $a = 0.25388 + 1.78486I$ $b = 0.55057 + 2.45686I$	$-11.01890 + 7.03717I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.02406+1.63596I$ $a=-1.27658+1.06452I$ $b=-3.37497+3.38315I$	$-11.09410-1.87001I$	0
$u=-0.02406-1.63596I$ $a=-1.27658-1.06452I$ $b=-3.37497-3.38315I$	$-11.09410+1.87001I$	0
$u=0.10980+1.63370I$ $a=-1.243870-0.667925I$ $b=-2.51489-1.49587I$	$-12.27640+0.94689I$	0
$u=0.10980-1.63370I$ $a=-1.243870+0.667925I$ $b=-2.51489+1.49587I$	$-12.27640-0.94689I$	0
$u=-0.14236+1.63151I$ $a=1.60169-0.04119I$ $b=3.11449-0.09048I$	$-7.86900-5.39498I$	0
$u=-0.14236-1.63151I$ $a=1.60169+0.04119I$ $b=3.11449+0.09048I$	$-7.86900+5.39498I$	0
$u=0.18027+1.63208I$ $a=1.118390+0.583138I$ $b=2.08381+1.15494I$	$-15.1614+5.2174I$	0
$u=0.18027-1.63208I$ $a=1.118390-0.583138I$ $b=2.08381-1.15494I$	$-15.1614-5.2174I$	0
$u=0.14361+1.64435I$ $a=-2.11765-0.04963I$ $b=-4.19419-0.00744I$	$-11.3977+10.6415I$	0
$u=0.14361-1.64435I$ $a=-2.11765+0.04963I$ $b=-4.19419+0.00744I$	$-11.3977-10.6415I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.09631 + 1.66230I$ $a = 2.20269 - 0.24901I$ $b = 4.20217 - 0.38809I$	$-17.5922 + 6.6845I$	0
$u = 0.09631 - 1.66230I$ $a = 2.20269 + 0.24901I$ $b = 4.20217 + 0.38809I$	$-17.5922 - 6.6845I$	0
$u = -0.328502 + 0.059345I$ $a = 2.21199 - 2.70852I$ $b = -0.726650 - 0.503743I$	$-1.42146 + 3.57364I$	$4.61344 - 2.53748I$
$u = -0.328502 - 0.059345I$ $a = 2.21199 + 2.70852I$ $b = -0.726650 + 0.503743I$	$-1.42146 - 3.57364I$	$4.61344 + 2.53748I$
$u = -0.17610 + 1.65959I$ $a = -1.52509 + 0.08404I$ $b = -3.02998 + 0.08952I$	$-10.1779 - 10.7238I$	0
$u = -0.17610 - 1.65959I$ $a = -1.52509 - 0.08404I$ $b = -3.02998 - 0.08952I$	$-10.1779 + 10.7238I$	0
$u = 0.16399 + 1.66168I$ $a = 1.98755 + 0.07708I$ $b = 4.04967 + 0.09312I$	$-14.0467 + 16.5764I$	0
$u = 0.16399 - 1.66168I$ $a = 1.98755 - 0.07708I$ $b = 4.04967 - 0.09312I$	$-14.0467 - 16.5764I$	0
$u = 0.184110 + 0.262726I$ $a = -2.32875 - 0.09910I$ $b = 0.492273 + 0.447222I$	$0.19160 - 1.53066I$	$0.415592 + 0.997580I$
$u = 0.184110 - 0.262726I$ $a = -2.32875 + 0.09910I$ $b = 0.492273 - 0.447222I$	$0.19160 + 1.53066I$	$0.415592 - 0.997580I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.07757 + 1.68352I$ $a = -1.51866 - 0.11008I$ $b = -3.13003 - 0.08518I$	$-13.07090 - 2.69496I$	0
$u = -0.07757 - 1.68352I$ $a = -1.51866 + 0.11008I$ $b = -3.13003 + 0.08518I$	$-13.07090 + 2.69496I$	0
$u = 0.10895 + 1.70761I$ $a = 1.271630 + 0.476012I$ $b = 2.67034 + 0.89787I$	$-15.7142 - 2.6891I$	0
$u = 0.10895 - 1.70761I$ $a = 1.271630 - 0.476012I$ $b = 2.67034 - 0.89787I$	$-15.7142 + 2.6891I$	0

II. $\boldsymbol{I_2^u = \langle u^2a + b,\ -10u^2a + 13u^2 + \cdots - 15a + 17,\ u^3 + u^2 + 2u + 1\rangle}$

(i) Arc colorings

$$a_8 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_4 = \begin{pmatrix} a \\ -u^2a \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u^2+1 \\ u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 2a \\ -2u^2a - au \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -u \\ -u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -u \\ -u^2 - u - 1 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} u^2a + a \\ -u^2a - au - a \end{pmatrix}$$
$$a_2 = \begin{pmatrix} u^2a - \frac{4}{5}u^2 + a + \frac{2}{5}u - \frac{6}{5} \\ -u^2a - au + \frac{1}{5}u^2 - a + \frac{7}{5}u + \frac{4}{5} \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{27}{5}u^2a + \frac{74}{5}au + \frac{87}{25}u^2 + \frac{53}{5}a + \frac{94}{25}u + \frac{133}{25}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5	$(u^2-u+1)^3$
c_2	$(u^2+u+1)^3$
c_3	$25(25u^6-20u^5+21u^4-6u^3+5u^2-u+1)$
c_4	$25(25u^6-35u^5+29u^4-18u^3+9u^2-4u+1)$
c_6	$(u^3-u^2+1)^2$
c_7, c_8	$(u^3+u^2+2u+1)^2$
c_9	u^6
c_{10}	$(u^3+u^2-1)^2$
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_5	$(y^2+y+1)^3$
c_3	$625(625y^6+650y^5+451y^4+184y^3+55y^2+9y+1)$
c_4	$625(625y^6+225y^5+31y^4-32y^3-5y^2+2y+1)$
c_6, c_{10}	$(y^3-y^2+2y-1)^2$
c_7, c_8, c_{11} c_{12}	$(y^3+3y^2+2y-1)^2$
c_9	y^6

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.215080 + 1.307140I$ $a = -0.432147 - 0.224180I$ $b = -0.592331 - 0.615655I$	$-3.02413 - 4.85801I$	$2.36205 + 10.05749I$
$u = -0.215080 + 1.307140I$ $a = 0.410219 - 0.262160I$ $b = 0.829338 - 0.205146I$	$-3.02413 - 0.79824I$	$3.05664 - 3.74022I$
$u = -0.215080 - 1.307140I$ $a = -0.432147 + 0.224180I$ $b = -0.592331 + 0.615655I$	$-3.02413 + 4.85801I$	$2.36205 - 10.05749I$
$u = -0.215080 - 1.307140I$ $a = 0.410219 + 0.262160I$ $b = 0.829338 + 0.205146I$	$-3.02413 + 0.79824I$	$3.05664 + 3.74022I$
$u = -0.569840$ $a = 0.421928 + 0.730800I$ $b = -0.137007 - 0.237304I$	$1.11345 - 2.02988I$	$5.96131 + 2.86462I$
$u = -0.569840$ $a = 0.421928 - 0.730800I$ $b = -0.137007 + 0.237304I$	$1.11345 + 2.02988I$	$5.96131 - 2.86462I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u^2-u+1)^3)(u^{84}+40u^{83}+\cdots+3294u+625)$
c_2	$((u^2+u+1)^3)(u^{84}+4u^{83}+\cdots+166u+25)$
c_3	$625(25u^6-20u^5+21u^4-6u^3+5u^2-u+1)$ $\cdot(25u^{84}+105u^{83}+\cdots-18688u+2563)$
c_4	$625(25u^6-35u^5+29u^4-18u^3+9u^2-4u+1)$ $\cdot(25u^{84}+10u^{83}+\cdots+227461u+20617)$
c_5	$((u^2-u+1)^3)(u^{84}+4u^{83}+\cdots+166u+25)$
c_6	$((u^3-u^2+1)^2)(u^{84}-3u^{83}+\cdots-3u+1)$
c_7, c_8	$((u^3+u^2+2u+1)^2)(u^{84}+3u^{83}+\cdots+3u+1)$
c_9	$u^6(u^{84}-u^{83}+\cdots+8800u+8000)$
c_{10}	$((u^3+u^2-1)^2)(u^{84}-3u^{83}+\cdots-3u+1)$
c_{11}, c_{12}	$((u^3-u^2+2u-1)^2)(u^{84}+3u^{83}+\cdots+3u+1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y^2+y+1)^3)(y^{84}+12y^{83}+\cdots-3086686y+390625)$
c_2, c_5	$((y^2+y+1)^3)(y^{84}+40y^{83}+\cdots+3294y+625)$
c_3	$390625(625y^6+650y^5+451y^4+184y^3+55y^2+9y+1)$ $\cdot(625y^{84}-31725y^{83}+\cdots-122497860y+6568969)$
c_4	$390625(625y^6+225y^5+31y^4-32y^3-5y^2+2y+1)$ $\cdot(625y^{84}-13650y^{83}+\cdots-53430131371y+425060689)$
c_6, c_{10}	$((y^3-y^2+2y-1)^2)(y^{84}+47y^{83}+\cdots+19y+1)$
c_7, c_8, c_{11} c_{12}	$((y^3+3y^2+2y-1)^2)(y^{84}+99y^{83}+\cdots+19y+1)$
c_9	$y^6(y^{84}-35y^{83}+\cdots-7.89120\times10^8y+6.40000\times10^7)$