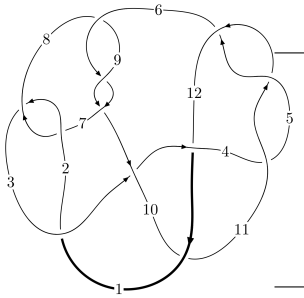
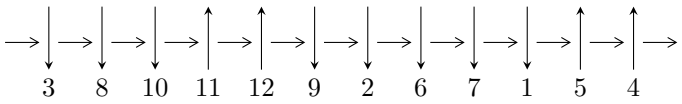
$12a_{0757}$ $(K12a_{0757})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle u^{85} - 38u^{83} + \cdots + b + 1,\ u^{84} - u^{83} + \cdots + a + 2,\ u^{86} - 2u^{85} + \cdots - 4u - 1 \rangle$$
$$I_2^u = \langle b,\ -u^4 - u^3 + u^2 + a + u,\ u^5 + u^4 - 2u^3 - u^2 + u - 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 91 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.

$$\boldsymbol{I_1^u = \langle u^{85}-38u^{83}+\cdots+b+1,\ u^{84}-u^{83}+\cdots+a+2,\ u^{86}-2u^{85}+\cdots-4u-1\rangle}$$

(i) Arc colorings

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

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

$$a_5 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} u \\ -u^3+u \end{pmatrix}$$

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

$$a_9 = \begin{pmatrix} -u^{84}+u^{83}+\cdots-3u-2 \\ -u^{85}+38u^{83}+\cdots-3u-1 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} u^{84}-u^{83}+\cdots+u^2+2 \\ -u^{51}+23u^{49}+\cdots-2u^2-u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -u^3+2u \\ -u^3+u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -u^{84}+u^{83}+\cdots-5u-3 \\ -2u^{85}+76u^{83}+\cdots-8u-2 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} -u^{14}+7u^{12}-18u^{10}+19u^8-4u^6-4u^4+1 \\ -u^{14}+6u^{12}-13u^{10}+10u^8+2u^6-4u^4-u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -u^{25}+12u^{23}+\cdots-2u^3+u \\ -u^{25}+11u^{23}+\cdots+5u^5+u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -6u^{85}+4u^{84}+\cdots-25u-14$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{86}+33u^{85}+\cdots+7680u+1024$
c_2, c_7	$u^{86}+u^{85}+\cdots+64u+32$
c_3	$u^{86}+2u^{85}+\cdots-3956u-757$
c_4, c_5, c_{11}	$u^{86}-2u^{85}+\cdots-4u-1$
c_6, c_8, c_9	$u^{86}-6u^{85}+\cdots+6u-1$
c_{10}	$u^{86}-18u^{85}+\cdots-31954u+1153$
c_{12}	$u^{86}+6u^{85}+\cdots+48u+5$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{86} + 31y^{85} + \cdots - 28966912y + 1048576$
c_2, c_7	$y^{86} - 33y^{85} + \cdots - 7680y + 1024$
c_3	$y^{86} - 6y^{85} + \cdots - 13406188y + 573049$
c_4, c_5, c_{11}	$y^{86} - 78y^{85} + \cdots - 8y + 1$
c_6, c_8, c_9	$y^{86} - 74y^{85} + \cdots - 18y + 1$
c_{10}	$y^{86} + 30y^{85} + \cdots - 95840184y + 1329409$
c_{12}	$y^{86} - 6y^{85} + \cdots - 324y + 25$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.091010+0.090090I$ $a=-0.956544+0.537574I$ $b=-0.493444-0.302436I$	$-0.575276-0.519687I$	0
$u=-1.091010-0.090090I$ $a=-0.956544-0.537574I$ $b=-0.493444+0.302436I$	$-0.575276+0.519687I$	0
$u=\ \ 1.094950+0.151003I$ $a=-1.23286-0.93748I$ $b=-2.64637-1.01452I$	$-1.57274+2.87671I$	0
$u=\ \ 1.094950-0.151003I$ $a=-1.23286+0.93748I$ $b=-2.64637+1.01452I$	$-1.57274-2.87671I$	0
$u=-0.855622+0.201501I$ $a=\ \ 0.719578-0.625350I$ $b=\ \ 2.47832-0.23964I$	$-8.00416+0.05306I$	$-10.12496+0.65924I$
$u=-0.855622-0.201501I$ $a=\ \ 0.719578+0.625350I$ $b=\ \ 2.47832+0.23964I$	$-8.00416-0.05306I$	$-10.12496-0.65924I$
$u=-1.110730+0.237283I$ $a=\ \ 0.953610-0.941499I$ $b=\ \ 2.19457-0.80602I$	$-4.00442-8.63773I$	0
$u=-1.110730-0.237283I$ $a=\ \ 0.953610+0.941499I$ $b=\ \ 2.19457+0.80602I$	$-4.00442+8.63773I$	0
$u=-1.121590+0.183537I$ $a=-0.313878-0.392217I$ $b=-0.511985+0.231496I$	$1.26195-4.79212I$	0
$u=-1.121590-0.183537I$ $a=-0.313878+0.392217I$ $b=-0.511985-0.231496I$	$1.26195+4.79212I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.204880 + 0.082857I$ $a = 0.377988 - 0.117095I$ $b = 0.653932 + 0.222912I$	$2.68827 + 0.56424I$	0
$u = 1.204880 - 0.082857I$ $a = 0.377988 + 0.117095I$ $b = 0.653932 - 0.222912I$	$2.68827 - 0.56424I$	0
$u = -0.304717 + 0.718199I$ $a = -3.02965 + 2.28213I$ $b = -2.85170 - 0.19298I$	$-4.47476 - 12.25720I$	$-8.16453 + 9.33775I$
$u = -0.304717 - 0.718199I$ $a = -3.02965 - 2.28213I$ $b = -2.85170 + 0.19298I$	$-4.47476 + 12.25720I$	$-8.16453 - 9.33775I$
$u = -0.644967 + 0.406996I$ $a = 0.81693 - 1.29819I$ $b = 2.40453 - 0.03748I$	$-3.18368 + 8.27801I$	$-5.74606 - 4.15811I$
$u = -0.644967 - 0.406996I$ $a = 0.81693 + 1.29819I$ $b = 2.40453 + 0.03748I$	$-3.18368 - 8.27801I$	$-5.74606 + 4.15811I$
$u = -0.302147 + 0.698378I$ $a = 1.69695 - 0.39760I$ $b = 1.200740 + 0.251003I$	$0.59979 - 7.98524I$	$-4.28596 + 8.59628I$
$u = -0.302147 - 0.698378I$ $a = 1.69695 + 0.39760I$ $b = 1.200740 - 0.251003I$	$0.59979 + 7.98524I$	$-4.28596 - 8.59628I$
$u = 0.290094 + 0.690020I$ $a = 3.62527 + 2.53458I$ $b = 3.21306 - 0.37602I$	$-2.54869 + 6.00860I$	$-7.19871 - 6.21639I$
$u = 0.290094 - 0.690020I$ $a = 3.62527 - 2.53458I$ $b = 3.21306 + 0.37602I$	$-2.54869 - 6.00860I$	$-7.19871 + 6.21639I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.213699+0.712661I$ $a=-3.75536+1.00291I$ $b=-2.50732-1.01411I$	$-10.08270-3.69819I$	$-13.22796+4.35181I$
$u=-0.213699-0.712661I$ $a=-3.75536-1.00291I$ $b=-2.50732+1.01411I$	$-10.08270+3.69819I$	$-13.22796-4.35181I$
$u=0.370897+0.644380I$ $a=-0.213962-0.831526I$ $b=0.070557+0.135650I$	$-1.75429-0.31789I$	$-7.24883+0.38454I$
$u=0.370897-0.644380I$ $a=-0.213962+0.831526I$ $b=0.070557-0.135650I$	$-1.75429+0.31789I$	$-7.24883-0.38454I$
$u=0.317056+0.659169I$ $a=-1.69293-0.31547I$ $b=-1.113990+0.441879I$	$1.84865+2.71798I$	$-1.15601-3.64002I$
$u=0.317056-0.659169I$ $a=-1.69293+0.31547I$ $b=-1.113990-0.441879I$	$1.84865-2.71798I$	$-1.15601+3.64002I$
$u=-0.285082+0.670702I$ $a=0.291900-0.687149I$ $b=-0.001367+0.187746I$	$-1.84610-3.37653I$	$-8.02440+5.55346I$
$u=-0.285082-0.670702I$ $a=0.291900+0.687149I$ $b=-0.001367-0.187746I$	$-1.84610+3.37653I$	$-8.02440-5.55346I$
$u=0.492588+0.515342I$ $a=0.002431-0.995227I$ $b=0.206724+0.064894I$	$-1.23426+4.17652I$	$-5.38905-6.75676I$
$u=0.492588-0.515342I$ $a=0.002431+0.995227I$ $b=0.206724-0.064894I$	$-1.23426-4.17652I$	$-5.38905+6.75676I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.594464+0.384370I$ $a=-0.364909+1.124990I$ $b=-0.818330+0.327095I$	$1.81169+4.17335I$	$-1.36388-3.22734I$
$u=-0.594464-0.384370I$ $a=-0.364909-1.124990I$ $b=-0.818330-0.327095I$	$1.81169-4.17335I$	$-1.36388+3.22734I$
$u=-0.088996+0.698267I$ $a=-3.20560-0.37370I$ $b=-1.60239-1.14493I$	$-7.07287+5.12939I$	$-12.10062-3.05911I$
$u=-0.088996-0.698267I$ $a=-3.20560+0.37370I$ $b=-1.60239+1.14493I$	$-7.07287-5.12939I$	$-12.10062+3.05911I$
$u=1.296840+0.254244I$ $a=1.74259+1.37380I$ $b=1.00578-1.42157I$	$-2.76937-1.68516I$	0
$u=1.296840-0.254244I$ $a=1.74259-1.37380I$ $b=1.00578+1.42157I$	$-2.76937+1.68516I$	0
$u=0.573829+0.340250I$ $a=-0.46762-1.57866I$ $b=-2.49170-0.11337I$	$-1.28488-2.33578I$	$-4.10416+0.70719I$
$u=0.573829-0.340250I$ $a=-0.46762+1.57866I$ $b=-2.49170+0.11337I$	$-1.28488+2.33578I$	$-4.10416-0.70719I$
$u=-0.195487+0.637733I$ $a=1.57545-0.73490I$ $b=0.760351-0.133230I$	$-2.97228-2.37551I$	$-11.65767+5.29927I$
$u=-0.195487-0.637733I$ $a=1.57545+0.73490I$ $b=0.760351+0.133230I$	$-2.97228+2.37551I$	$-11.65767-5.29927I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.498839 + 0.429548I$ $a = 0.095972 + 1.205710I$ $b = 0.747967 + 0.564715I$	$2.71612 + 0.92129I$	$1.22364 - 3.37489I$
$u = 0.498839 - 0.429548I$ $a = 0.095972 - 1.205710I$ $b = 0.747967 - 0.564715I$	$2.71612 - 0.92129I$	$1.22364 + 3.37489I$
$u = 0.149386 + 0.639664I$ $a = 4.28046 - 0.54291I$ $b = 1.84399 - 1.81743I$	$-4.29764 + 0.19506I$	$-10.69913 - 1.71756I$
$u = 0.149386 - 0.639664I$ $a = 4.28046 + 0.54291I$ $b = 1.84399 + 1.81743I$	$-4.29764 - 0.19506I$	$-10.69913 + 1.71756I$
$u = -0.102193 + 0.639114I$ $a = 0.170959 - 0.334698I$ $b = 0.022360 + 0.303744I$	$-1.74600 + 1.64794I$	$-8.67678 - 2.62841I$
$u = -0.102193 - 0.639114I$ $a = 0.170959 + 0.334698I$ $b = 0.022360 - 0.303744I$	$-1.74600 - 1.64794I$	$-8.67678 + 2.62841I$
$u = 1.342630 + 0.217708I$ $a = -0.181733 - 0.286949I$ $b = 0.358856 + 0.469214I$	$2.77719 + 1.39279I$	0
$u = 1.342630 - 0.217708I$ $a = -0.181733 + 0.286949I$ $b = 0.358856 - 0.469214I$	$2.77719 - 1.39279I$	0
$u = -1.358500 + 0.238616I$ $a = -2.58446 + 2.02139I$ $b = -1.43667 - 2.58596I$	$0.48014 - 3.36112I$	0
$u = -1.358500 - 0.238616I$ $a = -2.58446 - 2.02139I$ $b = -1.43667 + 2.58596I$	$0.48014 + 3.36112I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.39118$ $a = 1.49038$ $b = -1.25287$	-1.58799	0
$u = 1.376020 + 0.246751I$ $a = -0.511564 - 0.904596I$ $b = -0.925433 - 0.030697I$	$2.02789 + 5.59288I$	0
$u = 1.376020 - 0.246751I$ $a = -0.511564 + 0.904596I$ $b = -0.925433 + 0.030697I$	$2.02789 - 5.59288I$	0
$u = 0.258444 + 0.537961I$ $a = -0.824637 + 0.076619I$ $b = -0.204825 + 0.532118I$	$0.029281 + 1.335260I$	$0.16290 - 4.75932I$
$u = 0.258444 - 0.537961I$ $a = -0.824637 - 0.076619I$ $b = -0.204825 - 0.532118I$	$0.029281 - 1.335260I$	$0.16290 + 4.75932I$
$u = 1.379690 + 0.282039I$ $a = 1.40623 + 2.55472I$ $b = 2.38274 - 1.47835I$	$-5.02912 + 7.30246I$	0
$u = 1.379690 - 0.282039I$ $a = 1.40623 - 2.55472I$ $b = 2.38274 + 1.47835I$	$-5.02912 - 7.30246I$	0
$u = -0.484810 + 0.332092I$ $a = -0.282807 - 1.155640I$ $b = -0.315394 - 0.023660I$	$-0.688337 - 0.084123I$	$-4.53467 - 0.27129I$
$u = -0.484810 - 0.332092I$ $a = -0.282807 + 1.155640I$ $b = -0.315394 + 0.023660I$	$-0.688337 + 0.084123I$	$-4.53467 + 0.27129I$
$u = -1.40291 + 0.21886I$ $a = 0.629712 - 0.516662I$ $b = 0.184210 + 0.726781I$	$5.35900 - 4.16935I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.40291-0.21886I$ $a=\ 0.629712+0.516662I$ $b=\ 0.184210-0.726781I$	$5.35900+4.16935I$	0
$u=\ 1.42125+0.14963I$ $a=-0.171108-0.870282I$ $b=\ 0.134991-0.469562I$	$5.21320+1.97379I$	0
$u=\ 1.42125-0.14963I$ $a=-0.171108+0.870282I$ $b=\ 0.134991+0.469562I$	$5.21320-1.97379I$	0
$u=-1.42562+0.13409I$ $a=-1.76380-0.89594I$ $b=\ 2.09227-0.95884I$	$4.84148+0.63389I$	0
$u=-1.42562-0.13409I$ $a=-1.76380+0.89594I$ $b=\ 2.09227+0.95884I$	$4.84148-0.63389I$	0
$u=\ 1.41411+0.26293I$ $a=-0.194651-0.604284I$ $b=\ 0.211606+0.184132I$	$3.58503+6.78684I$	0
$u=\ 1.41411-0.26293I$ $a=-0.194651+0.604284I$ $b=\ 0.211606-0.184132I$	$3.58503-6.78684I$	0
$u=-1.41705+0.27010I$ $a=-0.48533+3.31578I$ $b=-3.42567-0.72914I$	$2.90698-9.50849I$	0
$u=-1.41705-0.27010I$ $a=-0.48533-3.31578I$ $b=-3.42567+0.72914I$	$2.90698+9.50849I$	0
$u=\ 1.43860+0.13075I$ $a=-0.429349+0.494991I$ $b=\ 0.793565+0.831374I$	$8.13195-2.40072I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.43860 - 0.13075I$ $a = -0.429349 - 0.494991I$ $b = 0.793565 - 0.831374I$	$8.13195 + 2.40072I$	0
$u = -1.43698 + 0.15851I$ $a = 0.623047 + 0.425490I$ $b = -0.754946 + 0.982953I$	$8.81344 - 3.06716I$	0
$u = -1.43698 - 0.15851I$ $a = 0.623047 - 0.425490I$ $b = -0.754946 - 0.982953I$	$8.81344 + 3.06716I$	0
$u = -1.42446 + 0.25593I$ $a = 0.593762 - 1.006570I$ $b = 1.32370 + 0.54326I$	$7.42079 - 6.06552I$	0
$u = -1.42446 - 0.25593I$ $a = 0.593762 + 1.006570I$ $b = 1.32370 - 0.54326I$	$7.42079 + 6.06552I$	0
$u = 1.42267 + 0.27266I$ $a = -0.527480 - 0.978161I$ $b = -1.40879 + 0.34846I$	$6.11525 + 11.52370I$	0
$u = 1.42267 - 0.27266I$ $a = -0.527480 + 0.978161I$ $b = -1.40879 - 0.34846I$	$6.11525 - 11.52370I$	0
$u = 1.42568 + 0.28091I$ $a = 0.29899 + 2.87831I$ $b = 3.01900 - 0.42804I$	$1.0585 + 15.8929I$	0
$u = 1.42568 - 0.28091I$ $a = 0.29899 - 2.87831I$ $b = 3.01900 + 0.42804I$	$1.0585 - 15.8929I$	0
$u = 1.45026 + 0.11671I$ $a = 1.37770 - 0.77158I$ $b = -2.03725 - 0.56570I$	$3.38763 - 6.58591I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.45026 - 0.11671I$ $a = 1.37770 + 0.77158I$ $b = -2.03725 + 0.56570I$	$3.38763 + 6.58591I$	0
$u = -1.44132 + 0.24187I$ $a = 0.194375 - 0.685579I$ $b = -0.194750 + 0.044574I$	$4.05862 - 2.91828I$	0
$u = -1.44132 - 0.24187I$ $a = 0.194375 + 0.685579I$ $b = -0.194750 - 0.044574I$	$4.05862 + 2.91828I$	0
$u = -1.45150 + 0.17791I$ $a = 0.175028 - 0.800545I$ $b = -0.203825 - 0.257398I$	$4.96998 - 6.66919I$	0
$u = -1.45150 - 0.17791I$ $a = 0.175028 + 0.800545I$ $b = -0.203825 + 0.257398I$	$4.96998 + 6.66919I$	0
$u = -0.320908$ $a = -1.40782$ $b = -0.462488$	-1.08070	-8.42340

II. $I_2^u = \langle b,\ -u^4 - u^3 + u^2 + a + u,\ u^5 + u^4 - 2u^3 - u^2 + u - 1 \rangle$

(i) Arc colorings

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

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

$$a_5 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$

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

$$a_9 = \begin{pmatrix} u^4 + u^3 - u^2 - u \\ 0 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} u^4 + u^3 - 2u^2 - u + 1 \\ u^4 - 2u^2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -u^3 + 2u \\ -u^3 + u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} u^4 + u^3 - 2u^2 - u + 1 \\ u^4 - 2u^2 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} u^2 - 1 \\ -u^4 + 2u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -u^3 + 2u \\ -u^3 + u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -u^3 + 2u \\ -u^3 + u \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 5u^3 + u^2 - 8u - 3$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_7	u^5
c_3	$u^5 - u^4 + 2u^3 - u^2 + u - 1$
c_4, c_5	$u^5 + u^4 - 2u^3 - u^2 + u - 1$
c_6	$(u-1)^5$
c_8, c_9	$(u+1)^5$
c_{10}	$u^5 + u^4 + 2u^3 + u^2 + u + 1$
c_{11}	$u^5 - u^4 - 2u^3 + u^2 + u + 1$
c_{12}	$u^5 + 3u^4 + 4u^3 + u^2 - u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_7	y^5
c_3, c_{10}	$y^5 + 3y^4 + 4y^3 + y^2 - y - 1$
c_4, c_5, c_{11}	$y^5 - 5y^4 + 8y^3 - 3y^2 - y - 1$
c_6, c_8, c_9	$(y-1)^5$
c_{12}	$y^5 - y^4 + 8y^3 - 3y^2 + 3y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.21774$ $a = 1.30408$ $b = 0$	0.756147	-2.23020
$u = 0.309916 + 0.549911I$ $a = -0.428550 - 1.039280I$ $b = 0$	$-1.31583 + 1.53058I$	$-6.94263 - 4.09764I$
$u = 0.309916 - 0.549911I$ $a = -0.428550 + 1.039280I$ $b = 0$	$-1.31583 - 1.53058I$	$-6.94263 + 4.09764I$
$u = -1.41878 + 0.21917I$ $a = 0.276511 - 0.728237I$ $b = 0$	$4.22763 - 4.40083I$	$-2.94226 + 4.18967I$
$u = -1.41878 - 0.21917I$ $a = 0.276511 + 0.728237I$ $b = 0$	$4.22763 + 4.40083I$	$-2.94226 - 4.18967I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$u^5(u^{86}+33u^{85}+\cdots+7680u+1024)$
c_2, c_7	$u^5(u^{86}+u^{85}+\cdots+64u+32)$
c_3	$(u^5-u^4+2u^3-u^2+u-1)(u^{86}+2u^{85}+\cdots-3956u-757)$
c_4, c_5	$(u^5+u^4-2u^3-u^2+u-1)(u^{86}-2u^{85}+\cdots-4u-1)$
c_6	$((u-1)^5)(u^{86}-6u^{85}+\cdots+6u-1)$
c_8, c_9	$((u+1)^5)(u^{86}-6u^{85}+\cdots+6u-1)$
c_{10}	$(u^5+u^4+2u^3+u^2+u+1)(u^{86}-18u^{85}+\cdots-31954u+1153)$
c_{11}	$(u^5-u^4-2u^3+u^2+u+1)(u^{86}-2u^{85}+\cdots-4u-1)$
c_{12}	$(u^5+3u^4+4u^3+u^2-u-1)(u^{86}+6u^{85}+\cdots+48u+5)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$y^5(y^{86}+31y^{85}+\cdots-2.89669\times10^7y+1048576)$
c_2, c_7	$y^5(y^{86}-33y^{85}+\cdots-7680y+1024)$
c_3	$(y^5+3y^4+4y^3+y^2-y-1)(y^{86}-6y^{85}+\cdots-1.34062\times10^7y+573049)$
c_4, c_5, c_{11}	$(y^5-5y^4+8y^3-3y^2-y-1)(y^{86}-78y^{85}+\cdots-8y+1)$
c_6, c_8, c_9	$((y-1)^5)(y^{86}-74y^{85}+\cdots-18y+1)$
c_{10}	$(y^5+3y^4+4y^3+y^2-y-1)$ $\cdot(y^{86}+30y^{85}+\cdots-95840184y+1329409)$
c_{12}	$(y^5-y^4+8y^3-3y^2+3y-1)(y^{86}-6y^{85}+\cdots-324y+25)$