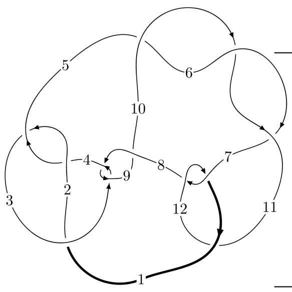
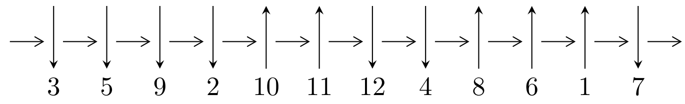
$12a_{0141}$ $(K12a_{0141})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -u^{83} - u^{82} + \cdots + b - 3u,\ -u^{83} - u^{82} + \cdots + a + 1,\ u^{85} + 2u^{84} + \cdots + 3u + 1\rangle$$
$$I_2^u = \langle b - 1,\ u^3 - u^2 + a + u,\ u^5 - u^4 + 2u^3 - u^2 + u - 1\rangle$$

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

$$I_1^u = \langle -u^{83} - u^{82} + \cdots + b - 3u,\ -u^{83} - u^{82} + \cdots + a + 1,\ u^{85} + 2u^{84} + \cdots + 3u + 1 \rangle$$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} u^{83} + u^{82} + \cdots - 2u^2 - 1 \\ u^{83} + u^{82} + \cdots - u^3 + 3u \end{pmatrix}$$

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

$$a_9 = \begin{pmatrix} u^{12} + 3u^{10} + 3u^8 - 2u^6 - 4u^4 - u^2 + 1 \\ -u^{14} - 4u^{12} - 7u^{10} - 4u^8 + 2u^6 + 4u^4 + u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -u^{83} - u^{82} + \cdots - u - 2 \\ u^{83} + u^{82} + \cdots - 2u^2 + 2u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} u^{81} + u^{80} + \cdots + 2u^2 + 2 \\ -u^{83} - u^{82} + \cdots - u^3 - 2u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} u^2 + 1 \\ -u^2 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -u^5 - 2u^3 - u \\ u^5 + u^3 + u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -u^8 - 3u^6 - 3u^4 + 1 \\ u^8 + 2u^6 + 2u^4 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u^{11} + 4u^9 + 6u^7 + 2u^5 - 3u^3 - 2u \\ -u^{11} - 3u^9 - 4u^7 - u^5 + u^3 + u \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -4u^{84} - 3u^{83} + \cdots - 19u^2 - 7$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{85} + 44u^{84} + \cdots + 5u + 1$
c_2, c_4	$u^{85} - 6u^{84} + \cdots - 7u + 1$
c_3, c_8	$u^{85} - u^{84} + \cdots + 280u^2 + 32$
c_5, c_6, c_{10}	$u^{85} - 2u^{84} + \cdots + 69u + 9$
c_7, c_{12}	$u^{85} + 2u^{84} + \cdots + 3u + 1$
c_9	$u^{85} - 33u^{84} + \cdots - 17920u + 1024$
c_{11}	$u^{85} - 48u^{84} + \cdots + 11u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{85} + 68y^{83} + \cdots + 29y - 1$
c_2, c_4	$y^{85} - 44y^{84} + \cdots + 5y - 1$
c_3, c_8	$y^{85} + 33y^{84} + \cdots - 17920y - 1024$
c_5, c_6, c_{10}	$y^{85} - 88y^{84} + \cdots + 5643y - 81$
c_7, c_{12}	$y^{85} + 48y^{84} + \cdots + 11y - 1$
c_9	$y^{85} + 29y^{84} + \cdots + 17432576y - 1048576$
c_{11}	$y^{85} - 20y^{84} + \cdots + 283y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.427067 + 0.903288I$ $a = -1.45806 + 0.54783I$ $b = -0.093443 - 0.592929I$	$0.15850 + 2.06285I$	0
$u = -0.427067 - 0.903288I$ $a = -1.45806 - 0.54783I$ $b = -0.093443 + 0.592929I$	$0.15850 - 2.06285I$	0
$u = -0.299920 + 0.963143I$ $a = -0.70616 + 1.28928I$ $b = -0.444864 + 0.101720I$	$0.80832 + 2.36710I$	0
$u = -0.299920 - 0.963143I$ $a = -0.70616 - 1.28928I$ $b = -0.444864 - 0.101720I$	$0.80832 - 2.36710I$	0
$u = -0.515060 + 0.884059I$ $a = 2.20223 - 0.11337I$ $b = -0.489025 + 1.097400I$	$-2.47171 - 1.64225I$	0
$u = -0.515060 - 0.884059I$ $a = 2.20223 + 0.11337I$ $b = -0.489025 - 1.097400I$	$-2.47171 + 1.64225I$	0
$u = -0.127090 + 0.966533I$ $a = 0.14971 - 1.50302I$ $b = -0.162922 - 0.575892I$	$-0.189918 - 0.769631I$	0
$u = -0.127090 - 0.966533I$ $a = 0.14971 + 1.50302I$ $b = -0.162922 + 0.575892I$	$-0.189918 + 0.769631I$	0
$u = 0.472646 + 0.937491I$ $a = -1.30201 - 2.40692I$ $b = -0.75331 + 1.77642I$	$-2.91281 - 3.22612I$	0
$u = 0.472646 - 0.937491I$ $a = -1.30201 + 2.40692I$ $b = -0.75331 - 1.77642I$	$-2.91281 + 3.22612I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.148743 + 1.053900I$ $a = 0.031322 + 0.766541I$ $b = 1.145100 + 0.559030I$	$3.86682 + 1.00502I$	0
$u = 0.148743 - 1.053900I$ $a = 0.031322 - 0.766541I$ $b = 1.145100 - 0.559030I$	$3.86682 - 1.00502I$	0
$u = -0.482726 + 0.958907I$ $a = 2.09417 - 0.93018I$ $b = 0.361332 + 1.235000I$	$-2.60128 + 5.81097I$	0
$u = -0.482726 - 0.958907I$ $a = 2.09417 + 0.93018I$ $b = 0.361332 - 1.235000I$	$-2.60128 - 5.81097I$	0
$u = 0.094327 + 1.083490I$ $a = -0.282344 - 1.027780I$ $b = -1.192310 - 0.747964I$	$1.72458 + 5.87992I$	0
$u = 0.094327 - 1.083490I$ $a = -0.282344 + 1.027780I$ $b = -1.192310 + 0.747964I$	$1.72458 - 5.87992I$	0
$u = 0.221914 + 0.883158I$ $a = 1.20820 - 1.44716I$ $b = -1.45625 - 0.47093I$	$-0.855582 - 1.085530I$	$4.15462 - 1.86707I$
$u = 0.221914 - 0.883158I$ $a = 1.20820 + 1.44716I$ $b = -1.45625 + 0.47093I$	$-0.855582 + 1.085530I$	$4.15462 + 1.86707I$
$u = 0.488530 + 0.986861I$ $a = 0.70570 + 2.33378I$ $b = 1.01921 - 1.22307I$	$1.47835 - 6.73642I$	0
$u = 0.488530 - 0.986861I$ $a = 0.70570 - 2.33378I$ $b = 1.01921 + 1.22307I$	$1.47835 + 6.73642I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.517691 + 0.981760I$ $a = -0.62999 - 2.67424I$ $b = -1.38554 + 1.33578I$	$-1.25752 - 11.69060I$	0
$u = 0.517691 - 0.981760I$ $a = -0.62999 + 2.67424I$ $b = -1.38554 - 1.33578I$	$-1.25752 + 11.69060I$	0
$u = -0.429195 + 0.777445I$ $a = -1.174550 - 0.530055I$ $b = 0.415792 - 0.088181I$	$-0.06950 + 1.83366I$	$0.66649 - 5.14350I$
$u = -0.429195 - 0.777445I$ $a = -1.174550 + 0.530055I$ $b = 0.415792 + 0.088181I$	$-0.06950 - 1.83366I$	$0.66649 + 5.14350I$
$u = 0.290125 + 1.079680I$ $a = -0.170641 - 0.295666I$ $b = 0.738944 + 0.278480I$	$5.05386 - 1.05004I$	0
$u = 0.290125 - 1.079680I$ $a = -0.170641 + 0.295666I$ $b = 0.738944 - 0.278480I$	$5.05386 + 1.05004I$	0
$u = -0.872592 + 0.011682I$ $a = -0.13799 + 1.46426I$ $b = 0.319385 - 1.125930I$	$9.16696 - 2.75702I$	$3.57442 + 3.01021I$
$u = -0.872592 - 0.011682I$ $a = -0.13799 - 1.46426I$ $b = 0.319385 + 1.125930I$	$9.16696 + 2.75702I$	$3.57442 - 3.01021I$
$u = -0.863233 + 0.080625I$ $a = 0.81138 - 1.42675I$ $b = -1.91866 + 1.20507I$	$3.48230 - 11.13990I$	$-1.12808 + 7.06717I$
$u = -0.863233 - 0.080625I$ $a = 0.81138 + 1.42675I$ $b = -1.91866 - 1.20507I$	$3.48230 + 11.13990I$	$-1.12808 - 7.06717I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.860540+0.064517I$ $a=-0.70023+1.48083I$ $b=1.62593-1.28684I$	$6.12444-5.75564I$	$2.12476+3.50801I$
$u=-0.860540-0.064517I$ $a=-0.70023-1.48083I$ $b=1.62593+1.28684I$	$6.12444+5.75564I$	$2.12476-3.50801I$
$u=0.844152+0.062878I$ $a=0.268712-0.119606I$ $b=0.752344+0.745016I$	$1.62409+4.88126I$	$-2.48263-3.81093I$
$u=0.844152-0.062878I$ $a=0.268712+0.119606I$ $b=0.752344-0.745016I$	$1.62409-4.88126I$	$-2.48263+3.81093I$
$u=0.388889+1.096620I$ $a=0.099797+0.999827I$ $b=-0.0317490-0.1256150I$	$4.33398-5.66355I$	0
$u=0.388889-1.096620I$ $a=0.099797-0.999827I$ $b=-0.0317490+0.1256150I$	$4.33398+5.66355I$	0
$u=-0.831465+0.054925I$ $a=0.75430-1.75204I$ $b=-1.62680+1.91695I$	$0.96832-2.23146I$	$-2.03853+3.04442I$
$u=-0.831465-0.054925I$ $a=0.75430+1.75204I$ $b=-1.62680-1.91695I$	$0.96832+2.23146I$	$-2.03853-3.04442I$
$u=0.829680+0.029626I$ $a=-0.212091+0.030369I$ $b=-0.707910-0.329097I$	$3.58523+0.53976I$	$0.236036+1.036399I$
$u=0.829680-0.029626I$ $a=-0.212091-0.030369I$ $b=-0.707910+0.329097I$	$3.58523-0.53976I$	$0.236036-1.036399I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.549150 + 0.588273I$ $a = 1.10721 + 1.72614I$ $b = -0.755841 - 1.170040I$	$-3.29788 + 5.93867I$	$-5.94323 - 6.90497I$
$u = -0.549150 - 0.588273I$ $a = 1.10721 - 1.72614I$ $b = -0.755841 + 1.170040I$	$-3.29788 - 5.93867I$	$-5.94323 + 6.90497I$
$u = 0.767403 + 0.105507I$ $a = 0.514337 + 0.150139I$ $b = -0.047203 + 0.669447I$	$0.74936 - 1.67557I$	$-1.83419 + 4.19037I$
$u = 0.767403 - 0.105507I$ $a = 0.514337 - 0.150139I$ $b = -0.047203 - 0.669447I$	$0.74936 + 1.67557I$	$-1.83419 - 4.19037I$
$u = 0.418759 + 1.172800I$ $a = -0.159145 + 0.894091I$ $b = 0.135953 + 0.365111I$	$4.44095 - 5.64736I$	0
$u = 0.418759 - 1.172800I$ $a = -0.159145 - 0.894091I$ $b = 0.135953 - 0.365111I$	$4.44095 + 5.64736I$	0
$u = -0.457326 + 0.591105I$ $a = -0.94785 - 1.41236I$ $b = 0.377468 + 0.777654I$	$-0.68556 + 1.70417I$	$-2.97415 - 3.79810I$
$u = -0.457326 - 0.591105I$ $a = -0.94785 + 1.41236I$ $b = 0.377468 - 0.777654I$	$-0.68556 - 1.70417I$	$-2.97415 + 3.79810I$
$u = 0.595689 + 0.441663I$ $a = 1.83391 + 1.66748I$ $b = -1.15659 - 1.23971I$	$-2.76956 + 7.29426I$	$-5.22729 - 5.96862I$
$u = 0.595689 - 0.441663I$ $a = 1.83391 - 1.66748I$ $b = -1.15659 + 1.23971I$	$-2.76956 - 7.29426I$	$-5.22729 + 5.96862I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.487621 + 1.191850I$ $a = 1.067100 - 0.424092I$ $b = 0.121066 - 0.748933I$	$3.93138 - 2.95603I$	0
$u = 0.487621 - 1.191850I$ $a = 1.067100 + 0.424092I$ $b = 0.121066 + 0.748933I$	$3.93138 + 2.95603I$	0
$u = 0.490907 + 0.508135I$ $a = 1.56014 + 2.20056I$ $b = -0.40694 - 1.54213I$	$-4.10374 - 0.78290I$	$-8.23718 + 0.26691I$
$u = 0.490907 - 0.508135I$ $a = 1.56014 - 2.20056I$ $b = -0.40694 + 1.54213I$	$-4.10374 + 0.78290I$	$-8.23718 - 0.26691I$
$u = -0.432592 + 1.231440I$ $a = 0.76495 + 1.44194I$ $b = -1.82893 + 1.84485I$	$4.81532 + 2.20135I$	0
$u = -0.432592 - 1.231440I$ $a = 0.76495 - 1.44194I$ $b = -1.82893 - 1.84485I$	$4.81532 - 2.20135I$	0
$u = 0.445663 + 1.230960I$ $a = -0.581637 - 0.898159I$ $b = -0.761101 - 0.242276I$	$7.34340 - 3.97545I$	0
$u = 0.445663 - 1.230960I$ $a = -0.581637 + 0.898159I$ $b = -0.761101 + 0.242276I$	$7.34340 + 3.97545I$	0
$u = -0.512165 + 0.463031I$ $a = 0.63934 + 1.63821I$ $b = 0.036905 - 1.325170I$	$-3.96910 - 1.72223I$	$-7.92428 + 1.16968I$
$u = -0.512165 - 0.463031I$ $a = 0.63934 - 1.63821I$ $b = 0.036905 + 1.325170I$	$-3.96910 + 1.72223I$	$-7.92428 - 1.16968I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.427548 + 1.238760I$ $a = 0.382640 + 1.176150I$ $b = 0.746159 + 0.605982I$	$5.54728 + 0.43357I$	0
$u = 0.427548 - 1.238760I$ $a = 0.382640 - 1.176150I$ $b = 0.746159 - 0.605982I$	$5.54728 - 0.43357I$	0
$u = 0.474420 + 1.224890I$ $a = -1.072410 - 0.442407I$ $b = -0.780878 + 0.397385I$	$7.13458 - 5.22782I$	0
$u = 0.474420 - 1.224890I$ $a = -1.072410 + 0.442407I$ $b = -0.780878 - 0.397385I$	$7.13458 + 5.22782I$	0
$u = -0.484834 + 1.222640I$ $a = -2.19593 + 1.58462I$ $b = -1.65391 - 2.09380I$	$4.43882 + 6.98841I$	0
$u = -0.484834 - 1.222640I$ $a = -2.19593 - 1.58462I$ $b = -1.65391 + 2.09380I$	$4.43882 - 6.98841I$	0
$u = -0.416514 + 1.251400I$ $a = -0.163665 + 1.195830I$ $b = -1.97265 + 1.08672I$	$7.54683 - 6.68500I$	0
$u = -0.416514 - 1.251400I$ $a = -0.163665 - 1.195830I$ $b = -1.97265 - 1.08672I$	$7.54683 + 6.68500I$	0
$u = -0.426785 + 1.249060I$ $a = -0.122637 - 1.014800I$ $b = 1.72547 - 1.20199I$	$10.11510 - 1.25157I$	0
$u = -0.426785 - 1.249060I$ $a = -0.122637 + 1.014800I$ $b = 1.72547 + 1.20199I$	$10.11510 + 1.25157I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.490124 + 1.226340I$ $a = 1.43483 + 0.30890I$ $b = 0.866884 - 0.767430I$	$5.09598 - 9.70048I$	0
$u = 0.490124 - 1.226340I$ $a = 1.43483 - 0.30890I$ $b = 0.866884 + 0.767430I$	$5.09598 + 9.70048I$	0
$u = 0.543800 + 0.402118I$ $a = -1.51318 - 1.68366I$ $b = 0.806831 + 1.004280I$	$-0.12612 + 2.57133I$	$-1.97535 - 2.97016I$
$u = 0.543800 - 0.402118I$ $a = -1.51318 + 1.68366I$ $b = 0.806831 - 1.004280I$	$-0.12612 - 2.57133I$	$-1.97535 + 2.97016I$
$u = -0.493919 + 1.232880I$ $a = 1.62810 - 1.79732I$ $b = 1.66947 + 1.38660I$	$9.6280 + 10.6382I$	0
$u = -0.493919 - 1.232880I$ $a = 1.62810 + 1.79732I$ $b = 1.66947 - 1.38660I$	$9.6280 - 10.6382I$	0
$u = -0.501415 + 1.230750I$ $a = -1.62921 + 2.08576I$ $b = -1.99524 - 1.27465I$	$6.9320 + 16.0693I$	0
$u = -0.501415 - 1.230750I$ $a = -1.62921 - 2.08576I$ $b = -1.99524 + 1.27465I$	$6.9320 - 16.0693I$	0
$u = -0.458122 + 1.250850I$ $a = -0.747325 + 0.157441I$ $b = 0.438672 - 1.193640I$	$12.99140 + 1.96517I$	0
$u = -0.458122 - 1.250850I$ $a = -0.747325 - 0.157441I$ $b = 0.438672 + 1.193640I$	$12.99140 - 1.96517I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.470369 + 1.247810I$ $a = 1.022100 - 0.693142I$ $b = 0.219562 + 1.214950I$	$12.9023 + 7.5473I$	0
$u = -0.470369 - 1.247810I$ $a = 1.022100 + 0.693142I$ $b = 0.219562 - 1.214950I$	$12.9023 - 7.5473I$	0
$u = 0.595116 + 0.162032I$ $a = -0.699007 - 0.996568I$ $b = 0.426595 + 0.028304I$	$1.64828 + 1.80340I$	$1.26340 - 4.31445I$
$u = 0.595116 - 0.162032I$ $a = -0.699007 + 0.996568I$ $b = 0.426595 - 0.028304I$	$1.64828 - 1.80340I$	$1.26340 + 4.31445I$
$u = -0.243333$ $a = -1.34823$ $b = -0.653998$	-1.20251	-8.85310

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

(i) Arc colorings

$$a_1 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_7 = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_{12} = \begin{pmatrix}1\\-u^2\end{pmatrix}$$
$$a_4 = \begin{pmatrix}-u^3+u^2-u\\1\end{pmatrix}$$
$$a_8 = \begin{pmatrix}-u\\u^3+u\end{pmatrix}$$
$$a_9 = \begin{pmatrix}-u\\u^3+u\end{pmatrix}$$
$$a_3 = \begin{pmatrix}-u^3+u^2-u\\1\end{pmatrix}$$
$$a_2 = \begin{pmatrix}-u^3+u^2-u+1\\1\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}u^2+1\\-u^2\end{pmatrix}$$
$$a_6 = \begin{pmatrix}-u^4-u^2-1\\u^4-u^3+u^2+1\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}-u\\u^3+u\end{pmatrix}$$
$$a_5 = \begin{pmatrix}-1\\0\end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 2u^4-7u^3+8u^2-6u$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.339110 + 0.822375I$ $a = -0.871221 - 1.107660I$ $b = 1.00000$	$-1.31583 + 1.53058I$	$-6.99101 - 6.23673I$
$u = -0.339110 - 0.822375I$ $a = -0.871221 + 1.107660I$ $b = 1.00000$	$-1.31583 - 1.53058I$	$-6.99101 + 6.23673I$
$u = 0.766826$ $a = -0.629714$ $b = 1.00000$	0.756147	-2.36160
$u = 0.455697 + 1.200150I$ $a = 0.186078 + 0.874646I$ $b = 1.00000$	$4.22763 - 4.40083I$	$1.17182 + 3.02310I$
$u = 0.455697 - 1.200150I$ $a = 0.186078 - 0.874646I$ $b = 1.00000$	$4.22763 + 4.40083I$	$1.17182 - 3.02310I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u-1)^5)(u^{85}+44u^{84}+\cdots+5u+1)$
c_2	$((u-1)^5)(u^{85}-6u^{84}+\cdots-7u+1)$
c_3, c_8	$u^5(u^{85}-u^{84}+\cdots+280u^2+32)$
c_4	$((u+1)^5)(u^{85}-6u^{84}+\cdots-7u+1)$
c_5, c_6	$(u^5-u^4-2u^3+u^2+u+1)(u^{85}-2u^{84}+\cdots+69u+9)$
c_7	$(u^5+u^4+2u^3+u^2+u+1)(u^{85}+2u^{84}+\cdots+3u+1)$
c_9	$u^5(u^{85}-33u^{84}+\cdots-17920u+1024)$
c_{10}	$(u^5+u^4-2u^3-u^2+u-1)(u^{85}-2u^{84}+\cdots+69u+9)$
c_{11}	$(u^5+3u^4+4u^3+u^2-u-1)(u^{85}-48u^{84}+\cdots+11u+1)$
c_{12}	$(u^5-u^4+2u^3-u^2+u-1)(u^{85}+2u^{84}+\cdots+3u+1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y-1)^5)(y^{85}+68y^{83}+\cdots+29y-1)$
c_2, c_4	$((y-1)^5)(y^{85}-44y^{84}+\cdots+5y-1)$
c_3, c_8	$y^5(y^{85}+33y^{84}+\cdots-17920y-1024)$
c_5, c_6, c_{10}	$(y^5-5y^4+8y^3-3y^2-y-1)(y^{85}-88y^{84}+\cdots+5643y-81)$
c_7, c_{12}	$(y^5+3y^4+4y^3+y^2-y-1)(y^{85}+48y^{84}+\cdots+11y-1)$
c_9	$y^5(y^{85}+29y^{84}+\cdots+1.74326\times 10^7y-1048576)$
c_{11}	$(y^5-y^4+8y^3-3y^2+3y-1)(y^{85}-20y^{84}+\cdots+283y-1)$