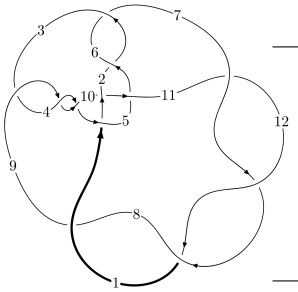
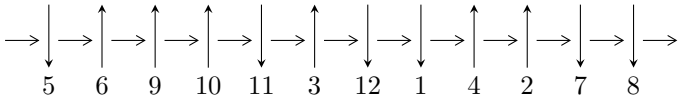
$12a_{1235}$ $(K12a_{1235})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -2.86883 \times 10^{97} u^{82} - 1.55584 \times 10^{98} u^{81} + \cdots + 7.14764 \times 10^{98} b - 1.16306 \times 10^{99},$$
$$- 1.14478 \times 10^{98} u^{82} - 2.39182 \times 10^{98} u^{81} + \cdots + 7.14764 \times 10^{98} a - 3.16119 \times 10^{99},\ u^{83} + u^{82} + \cdots + 9u -$$
$$I_2^u = \langle -u^{14} + 10u^{12} + u^{11} - 39u^{10} - 8u^9 + 75u^8 + 23u^7 - 74u^6 - 29u^5 + 35u^4 + 17u^3 - 6u^2 + b - 5u + 1,$$
$$u^{15} - u^{14} + \cdots + a - 1,\ u^{17} - 12u^{15} + \cdots + 2u + 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 100 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.

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$\boldsymbol{I_1^u = \langle -2.87\times 10^{97}u^{82} - 1.56\times 10^{98}u^{81} + \cdots + 7.15\times 10^{98}b - 1.16\times 10^{99},\ -1.14\times 10^{98}u^{82} - 2.39\times 10^{98}u^{81} + \cdots + 7.15\times 10^{98}a - 3.16\times 10^{99},\ u^{83} + u^{82} + \cdots + 9u - 1\rangle}$

(i) Arc colorings

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_8 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} 0.160162u^{82} + 0.334631u^{81} + \cdots - 0.747532u + 4.42271 \\ 0.0401367u^{82} + 0.217672u^{81} + \cdots + 0.925102u + 1.62720 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u^2 + 1 \\ -u^4 + 2u^2 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.213196u^{82} + 0.466612u^{81} + \cdots + 0.0323716u + 5.97524 \\ 0.00962191u^{82} + 0.239696u^{81} + \cdots + 0.902950u + 1.65279 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.428885u^{82} + 0.918419u^{81} + \cdots + 1.55236u + 8.53499 \\ 0.0169089u^{82} + 0.434079u^{81} + \cdots - 0.349604u + 3.04904 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.826939u^{82} - 1.72921u^{81} + \cdots - 4.55454u - 10.5230 \\ 0.0411460u^{82} - 0.623126u^{81} + \cdots + 2.08602u - 3.87008 \end{pmatrix}$$

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

$$a_5 = \begin{pmatrix} 0.428878u^{82} + 0.873387u^{81} + \cdots + 1.79165u + 8.46262 \\ 0.0169013u^{82} + 0.389047u^{81} + \cdots - 0.110312u + 2.97668 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.958590u^{82} - 0.625662u^{81} + \cdots - 3.45210u - 8.51747 \\ -0.504620u^{82} - 0.211045u^{81} + \cdots - 2.58924u - 2.59056 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 1.80406u^{82} + 2.42592u^{81} + \cdots + 2.92566u + 25.5968$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{83}+5u^{82}+\cdots+719u-479$
c_2, c_6	$u^{83}-28u^{81}+\cdots-22u-73$
c_3, c_4, c_9	$u^{83}-u^{82}+\cdots-4u+8$
c_5	$u^{83}+u^{82}+\cdots+34u-1$
c_7, c_8, c_{11} c_{12}	$u^{83}-u^{82}+\cdots+9u+1$
c_{10}	$u^{83}-2u^{82}+\cdots+736u+1561$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{83} + 9y^{82} + \cdots + 384757y - 229441$
c_2, c_6	$y^{83} - 56y^{82} + \cdots + 97428y - 5329$
c_3, c_4, c_9	$y^{83} - 83y^{82} + \cdots - 304y - 64$
c_5	$y^{83} + y^{82} + \cdots + 750y - 1$
c_7, c_8, c_{11} c_{12}	$y^{83} - 99y^{82} + \cdots + 83y - 1$
c_{10}	$y^{83} - 34y^{82} + \cdots + 95556644y - 2436721$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.768082 + 0.691197I$ $a = 0.252642 + 1.292600I$ $b = -1.33555 + 0.56553I$	$7.6353 - 12.3651I$	0
$u = 0.768082 - 0.691197I$ $a = 0.252642 - 1.292600I$ $b = -1.33555 - 0.56553I$	$7.6353 + 12.3651I$	0
$u = -0.866895 + 0.373017I$ $a = 0.922412 - 0.077651I$ $b = -0.597906 - 0.120958I$	$2.82259 - 0.53209I$	0
$u = -0.866895 - 0.373017I$ $a = 0.922412 + 0.077651I$ $b = -0.597906 + 0.120958I$	$2.82259 + 0.53209I$	0
$u = 0.235435 + 0.882232I$ $a = 0.296158 + 0.219377I$ $b = -1.254670 - 0.403627I$	$9.25233 + 7.20437I$	0
$u = 0.235435 - 0.882232I$ $a = 0.296158 - 0.219377I$ $b = -1.254670 + 0.403627I$	$9.25233 - 7.20437I$	0
$u = -0.731931 + 0.526717I$ $a = -0.55919 + 1.43057I$ $b = 1.251280 + 0.487251I$	$1.12377 + 8.38932I$	0
$u = -0.731931 - 0.526717I$ $a = -0.55919 - 1.43057I$ $b = 1.251280 - 0.487251I$	$1.12377 - 8.38932I$	0
$u = -0.502172 + 0.729866I$ $a = 0.808477 - 1.017140I$ $b = -0.836691 - 0.506283I$	$3.26194 + 4.42234I$	0
$u = -0.502172 - 0.729866I$ $a = 0.808477 + 1.017140I$ $b = -0.836691 + 0.506283I$	$3.26194 - 4.42234I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.741521+0.479666I$ $a=\ \ 0.61796+1.69432I$ $b=\ \ 1.180280+0.049298I$	$7.90154+3.78747I$	0
$u=-0.741521-0.479666I$ $a=\ \ 0.61796-1.69432I$ $b=\ \ 1.180280-0.049298I$	$7.90154-3.78747I$	0
$u=\ \ 0.759993+0.438039I$ $a=\ \ 0.51802-1.64118I$ $b=\ \ 1.39103-0.62751I$	$7.59156-2.88645I$	0
$u=\ \ 0.759993-0.438039I$ $a=\ \ 0.51802+1.64118I$ $b=\ \ 1.39103+0.62751I$	$7.59156+2.88645I$	0
$u=\ \ 1.065910+0.374554I$ $a=\ \ 0.230666-0.271570I$ $b=\ \ 0.886114+0.262946I$	$-0.720339+0.792513I$	0
$u=\ \ 1.065910-0.374554I$ $a=\ \ 0.230666+0.271570I$ $b=\ \ 0.886114-0.262946I$	$-0.720339-0.792513I$	0
$u=\ \ 0.835796+0.060616I$ $a=-0.741566-0.326162I$ $b=-0.139599-0.295553I$	$-1.73821-0.12176I$	0
$u=\ \ 0.835796-0.060616I$ $a=-0.741566+0.326162I$ $b=-0.139599+0.295553I$	$-1.73821+0.12176I$	0
$u=-0.605321+0.578215I$ $a=\ \ 0.022688+0.194967I$ $b=-0.662120+0.544490I$	$2.82569+0.10655I$	0
$u=-0.605321-0.578215I$ $a=\ \ 0.022688-0.194967I$ $b=-0.662120-0.544490I$	$2.82569-0.10655I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.774756+0.279655I$ $a=0.409521-0.846501I$ $b=0.075986-0.890444I$	$-2.46982+3.44779I$	0
$u=-0.774756-0.279655I$ $a=0.409521+0.846501I$ $b=0.075986+0.890444I$	$-2.46982-3.44779I$	0
$u=0.598146+0.543807I$ $a=-0.747680-0.822006I$ $b=0.797769-0.293360I$	$-0.78891-1.85485I$	0
$u=0.598146-0.543807I$ $a=-0.747680+0.822006I$ $b=0.797769+0.293360I$	$-0.78891+1.85485I$	0
$u=0.666365+0.433298I$ $a=-0.252771-1.104390I$ $b=-0.032199-1.198920I$	$3.54914-6.33411I$	$0.+8.16822I$
$u=0.666365-0.433298I$ $a=-0.252771+1.104390I$ $b=-0.032199+1.198920I$	$3.54914+6.33411I$	$0.-8.16822I$
$u=-0.137211+0.664955I$ $a=-1.008040+0.313227I$ $b=1.111180-0.371677I$	$2.87567-4.41134I$	$3.53322+5.88957I$
$u=-0.137211-0.664955I$ $a=-1.008040-0.313227I$ $b=1.111180+0.371677I$	$2.87567+4.41134I$	$3.53322-5.88957I$
$u=0.555148+0.350297I$ $a=1.40971+1.37443I$ $b=-1.219220+0.311712I$	$1.52584-2.93851I$	$2.21348+8.51205I$
$u=0.555148-0.350297I$ $a=1.40971-1.37443I$ $b=-1.219220-0.311712I$	$1.52584+2.93851I$	$2.21348-8.51205I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.284960+0.532591I$ $a=-0.606372-0.317238I$ $b=-1.101640+0.237984I$	$4.61964-2.27072I$	0
$u=-1.284960-0.532591I$ $a=-0.606372+0.317238I$ $b=-1.101640-0.237984I$	$4.61964+2.27072I$	0
$u=-0.499318+0.304404I$ $a=\ \ 0.15040-2.11729I$ $b=-1.091140-0.571643I$	$1.74936+2.54506I$	$4.42588-10.86296I$
$u=-0.499318-0.304404I$ $a=\ \ 0.15040+2.11729I$ $b=-1.091140+0.571643I$	$1.74936-2.54506I$	$4.42588+10.86296I$
$u=\ \ 0.452167+0.325212I$ $a=\ \ 0.58482+2.60510I$ $b=-1.002000-0.101348I$	$1.85705+0.45025I$	$3.87420+1.56486I$
$u=\ \ 0.452167-0.325212I$ $a=\ \ 0.58482-2.60510I$ $b=-1.002000+0.101348I$	$1.85705-0.45025I$	$3.87420-1.56486I$
$u=-0.054260+0.528821I$ $a=-0.542993-0.539629I$ $b=\ \ 1.44268+0.17108I$	$9.81715-0.31683I$	$9.58825-0.96575I$
$u=-0.054260-0.528821I$ $a=-0.542993+0.539629I$ $b=\ \ 1.44268-0.17108I$	$9.81715+0.31683I$	$9.58825+0.96575I$
$u=\ \ 1.49008$ $a=\ \ 0.452163$ $b=\ \ 1.68796$	4.72540	0
$u=\ \ 1.49221+0.03214I$ $a=-0.02163+1.51967I$ $b=\ \ 0.808869+0.200589I$	$-0.82324-4.29800I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.49221 - 0.03214I$ $a = -0.02163 - 1.51967I$ $b = 0.808869 - 0.200589I$	$-0.82324 + 4.29800I$	0
$u = -0.420439 + 0.274945I$ $a = -0.115243 - 0.576490I$ $b = -1.037550 + 0.209794I$	$1.89083 - 0.25563I$	$4.66041 - 1.63586I$
$u = -0.420439 - 0.274945I$ $a = -0.115243 + 0.576490I$ $b = -1.037550 - 0.209794I$	$1.89083 + 0.25563I$	$4.66041 + 1.63586I$
$u = -1.50758 + 0.03846I$ $a = 0.68100 - 1.96909I$ $b = 0.998445 - 0.934747I$	$-1.10641 - 2.50144I$	0
$u = -1.50758 - 0.03846I$ $a = 0.68100 + 1.96909I$ $b = 0.998445 + 0.934747I$	$-1.10641 + 2.50144I$	0
$u = -1.51416$ $a = 1.76375$ $b = 2.20627$	4.11044	0
$u = -1.54919 + 0.07124I$ $a = -0.47695 - 1.54171I$ $b = -0.924141 - 0.190121I$	$-5.00465 + 0.83960I$	0
$u = -1.54919 - 0.07124I$ $a = -0.47695 + 1.54171I$ $b = -0.924141 + 0.190121I$	$-5.00465 - 0.83960I$	0
$u = 1.56347 + 0.06819I$ $a = -0.78560 + 1.75556I$ $b = -1.14540 + 0.90049I$	$-5.34195 - 3.77537I$	0
$u = 1.56347 - 0.06819I$ $a = -0.78560 - 1.75556I$ $b = -1.14540 - 0.90049I$	$-5.34195 + 3.77537I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.57107+0.09416I$ $a=-0.166949-1.254180I$ $b=-1.38879-0.41637I$	$-5.75176+4.51699I$	0
$u=-1.57107-0.09416I$ $a=-0.166949+1.254180I$ $b=-1.38879+0.41637I$	$-5.75176-4.51699I$	0
$u=1.55834+0.24296I$ $a=-0.02366+1.51038I$ $b=-0.963467+0.634147I$	$-3.58166-8.00557I$	0
$u=1.55834-0.24296I$ $a=-0.02366-1.51038I$ $b=-0.963467-0.634147I$	$-3.58166+8.00557I$	0
$u=1.57285+0.14448I$ $a=-0.592693-1.011330I$ $b=-0.679658-0.812394I$	$-4.48210-2.61438I$	0
$u=1.57285-0.14448I$ $a=-0.592693+1.011330I$ $b=-0.679658+0.812394I$	$-4.48210+2.61438I$	0
$u=0.085058+0.399319I$ $a=-0.716080-0.440615I$ $b=0.043328+0.425943I$	$0.023615-1.107130I$	$0.24981+5.47165I$
$u=0.085058-0.399319I$ $a=-0.716080+0.440615I$ $b=0.043328-0.425943I$	$0.023615+1.107130I$	$0.24981-5.47165I$
$u=-1.58914+0.16134I$ $a=0.135384+1.207830I$ $b=1.053060+0.533761I$	$-8.22990+4.45911I$	0
$u=-1.58914-0.16134I$ $a=0.135384-1.207830I$ $b=1.053060-0.533761I$	$-8.22990-4.45911I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.59660 + 0.07112I$ $a = -0.407344 + 0.653461I$ $b = -1.263460 + 0.332042I$	$-5.48564 - 0.54881I$	0
$u = 1.59660 - 0.07112I$ $a = -0.407344 - 0.653461I$ $b = -1.263460 - 0.332042I$	$-5.48564 + 0.54881I$	0
$u = -1.59450 + 0.12611I$ $a = -0.39069 + 1.82656I$ $b = -0.22128 + 1.47922I$	$-4.13693 + 8.41109I$	0
$u = -1.59450 - 0.12611I$ $a = -0.39069 - 1.82656I$ $b = -0.22128 - 1.47922I$	$-4.13693 - 8.41109I$	0
$u = 0.201705 + 0.326921I$ $a = 2.77973 + 1.57851I$ $b = 0.449464 + 0.725917I$	$4.91629 + 3.36888I$	$3.38585 - 1.71367I$
$u = 0.201705 - 0.326921I$ $a = 2.77973 - 1.57851I$ $b = 0.449464 - 0.725917I$	$4.91629 - 3.36888I$	$3.38585 + 1.71367I$
$u = 1.61261 + 0.15634I$ $a = 0.39427 - 1.52840I$ $b = 1.35704 - 0.60605I$	$-6.81274 - 10.95820I$	0
$u = 1.61261 - 0.15634I$ $a = 0.39427 + 1.52840I$ $b = 1.35704 + 0.60605I$	$-6.81274 + 10.95820I$	0
$u = 1.61775 + 0.14984I$ $a = 0.88961 - 1.28448I$ $b = 0.998630 - 0.221072I$	$-0.12435 - 6.19456I$	0
$u = 1.61775 - 0.14984I$ $a = 0.88961 + 1.28448I$ $b = 0.998630 + 0.221072I$	$-0.12435 + 6.19456I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.62616 + 0.06822I$ $a = 0.30884 + 1.49012I$ $b = 0.105281 + 1.165260I$	$-10.74930 - 4.72000I$	0
$u = 1.62616 - 0.06822I$ $a = 0.30884 - 1.49012I$ $b = 0.105281 - 1.165260I$	$-10.74930 + 4.72000I$	0
$u = -1.62426 + 0.13524I$ $a = 0.97669 + 1.71202I$ $b = 1.25823 + 0.93663I$	$-0.55167 + 5.09041I$	0
$u = -1.62426 - 0.13524I$ $a = 0.97669 - 1.71202I$ $b = 1.25823 - 0.93663I$	$-0.55167 - 5.09041I$	0
$u = -1.62996 + 0.21685I$ $a = -0.53811 - 1.61542I$ $b = -1.38415 - 0.71622I$	$-0.3993 + 15.8170I$	0
$u = -1.62996 - 0.21685I$ $a = -0.53811 + 1.61542I$ $b = -1.38415 + 0.71622I$	$-0.3993 - 15.8170I$	0
$u = -0.132784 + 0.329558I$ $a = 2.33743 - 2.97261I$ $b = 0.332026 + 0.247657I$	$4.91640 + 3.48534I$	$6.06358 - 0.28376I$
$u = -0.132784 - 0.329558I$ $a = 2.33743 + 2.97261I$ $b = 0.332026 - 0.247657I$	$4.91640 - 3.48534I$	$6.06358 + 0.28376I$
$u = -1.64700 + 0.01472I$ $a = -0.044159 - 0.956622I$ $b = 0.183647 - 0.730460I$	$-10.48590 - 0.17400I$	0
$u = -1.64700 - 0.01472I$ $a = -0.044159 + 0.956622I$ $b = 0.183647 + 0.730460I$	$-10.48590 + 0.17400I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.71576$ $a=\ \ 0.0355812$ $b=\ \ 0.301602$	-10.8584	0
$u=\ \ 1.83402$ $a=-0.726582$ $b=-0.854030$	-7.54790	0
$u=\ \ 0.106735$ $a=\ \ 4.49766$ $b=\ \ 1.77073$	10.1184	26.6560

II.

$\boldsymbol{I_2^u = \langle -u^{14}+10u^{12}+\cdots+b+1,\ u^{15}-u^{14}+\cdots+a-1,\ u^{17}-12u^{15}+\cdots+2u+1\rangle}$

(i) Arc colorings

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_8 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} -u^{15}+u^{14}+\cdots+3u+1 \\ u^{14}-10u^{12}+\cdots+5u-1 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u^2+1 \\ -u^4+2u^2 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 2u^{14}+u^{13}+\cdots+4u-1 \\ u^{15}+u^{14}+\cdots+4u-2 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -u^{16}-u^{15}+\cdots+2u+2 \\ -u^{15}-u^{14}+\cdots-u+4 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -u^{16}-u^{15}+\cdots+2u+2 \\ -u^{15}-3u^{14}+\cdots-5u+4 \end{pmatrix}$$

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

$$a_5 = \begin{pmatrix} -u^{16}-u^{15}+\cdots+u+2 \\ -u^{15}-2u^{14}+\cdots-2u+4 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -u^{16}+10u^{14}+\cdots+u-1 \\ -2u^{16}+22u^{14}+\cdots+5u-3 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -6u^{16}+4u^{15}+73u^{14}-38u^{13}-367u^{12}+133u^{11}+984u^{10}-199u^9-1511u^8+83u^7+1323u^6+86u^5-622u^4-97u^3+148u^2+27u-26$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{17} - 3u^{14} + \cdots - 2u + 1$
c_2	$u^{17} - 3u^{16} + \cdots - 3u + 1$
c_3, c_4	$u^{17} - 10u^{15} + \cdots + 2u - 1$
c_5	$u^{17} + 2u^{14} + \cdots + u + 1$
c_6	$u^{17} + 3u^{16} + \cdots - 3u - 1$
c_7, c_8	$u^{17} - 12u^{15} + \cdots + 2u + 1$
c_9	$u^{17} - 10u^{15} + \cdots + 2u + 1$
c_{10}	$u^{17} - 3u^{16} + \cdots - 3u + 1$
c_{11}, c_{12}	$u^{17} - 12u^{15} + \cdots + 2u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{17} - 12y^{15} + \cdots - 6y - 1$
c_2, c_6	$y^{17} - 17y^{16} + \cdots + 17y - 1$
c_3, c_4, c_9	$y^{17} - 20y^{16} + \cdots + 12y - 1$
c_5	$y^{17} - 6y^{15} + \cdots + 3y - 1$
c_7, c_8, c_{11} c_{12}	$y^{17} - 24y^{16} + \cdots + 24y - 1$
c_{10}	$y^{17} - 11y^{16} + \cdots + 9y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.003650 + 0.195846I$ $a = 0.414207 - 0.465164I$ $b = 0.873230 + 0.151297I$	$-0.428333 + 0.312530I$	$2.43654 + 3.06657I$
$u = 1.003650 - 0.195846I$ $a = 0.414207 + 0.465164I$ $b = 0.873230 - 0.151297I$	$-0.428333 - 0.312530I$	$2.43654 - 3.06657I$
$u = -1.061240 + 0.385002I$ $a = 0.662692 - 0.347814I$ $b = -0.641197 + 0.217090I$	$2.74449 - 1.32796I$	$0.90153 + 5.25483I$
$u = -1.061240 - 0.385002I$ $a = 0.662692 + 0.347814I$ $b = -0.641197 - 0.217090I$	$2.74449 + 1.32796I$	$0.90153 - 5.25483I$
$u = -1.20350$ $a = -1.13612$ $b = -1.50640$	6.94121	5.07090
$u = -0.418970 + 0.407394I$ $a = 0.74760 - 2.87715I$ $b = -0.698605 - 0.479518I$	$4.81038 + 4.20124I$	$4.41894 - 9.88963I$
$u = -0.418970 - 0.407394I$ $a = 0.74760 + 2.87715I$ $b = -0.698605 + 0.479518I$	$4.81038 - 4.20124I$	$4.41894 + 9.88963I$
$u = 1.52501$ $a = -1.23243$ $b = -2.01362$	3.55547	-6.47810
$u = 0.421778 + 0.203629I$ $a = -1.04051 - 2.49094I$ $b = 1.068590 - 0.399623I$	$1.43687 - 1.83764I$	$-0.929561 + 0.761877I$
$u = 0.421778 - 0.203629I$ $a = -1.04051 + 2.49094I$ $b = 1.068590 + 0.399623I$	$1.43687 + 1.83764I$	$-0.929561 - 0.761877I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.56066+0.06072I$ $a=\ \ 0.55652+1.55091I$ $b=\ \ 1.220760+0.593258I$	$-5.52285+2.78715I$	$-0.957635-0.257577I$
$u=-1.56066-0.06072I$ $a=\ \ 0.55652-1.55091I$ $b=\ \ 1.220760-0.593258I$	$-5.52285-2.78715I$	$-0.957635+0.257577I$
$u=\ \ 1.57362+0.12841I$ $a=-0.57428+1.80929I$ $b=-0.719013+0.744031I$	$-2.18394-6.16611I$	$-0.54092+5.12639I$
$u=\ \ 1.57362-0.12841I$ $a=-0.57428-1.80929I$ $b=-0.719013-0.744031I$	$-2.18394+6.16611I$	$-0.54092-5.12639I$
$u=-0.290981$ $a=\ \ 0.180347$ $b=-1.79429$	9.95562	-22.8560
$u=-1.72992$ $a=\ \ 0.608202$ $b=\ \ 0.582363$	-10.5244	10.2120
$u=\ \ 1.78304$ $a=\ \ 0.0475599$ $b=-0.475597$	-8.35124	-5.60590

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{17}-3u^{14}+\cdots-2u+1)(u^{83}+5u^{82}+\cdots+719u-479)$
c_2	$(u^{17}-3u^{16}+\cdots-3u+1)(u^{83}-28u^{81}+\cdots-22u-73)$
c_3, c_4	$(u^{17}-10u^{15}+\cdots+2u-1)(u^{83}-u^{82}+\cdots-4u+8)$
c_5	$(u^{17}+2u^{14}+\cdots+u+1)(u^{83}+u^{82}+\cdots+34u-1)$
c_6	$(u^{17}+3u^{16}+\cdots-3u-1)(u^{83}-28u^{81}+\cdots-22u-73)$
c_7, c_8	$(u^{17}-12u^{15}+\cdots+2u+1)(u^{83}-u^{82}+\cdots+9u+1)$
c_9	$(u^{17}-10u^{15}+\cdots+2u+1)(u^{83}-u^{82}+\cdots-4u+8)$
c_{10}	$(u^{17}-3u^{16}+\cdots-3u+1)(u^{83}-2u^{82}+\cdots+736u+1561)$
c_{11}, c_{12}	$(u^{17}-12u^{15}+\cdots+2u-1)(u^{83}-u^{82}+\cdots+9u+1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{17}-12y^{15}+\cdots-6y-1)(y^{83}+9y^{82}+\cdots+384757y-229441)$
c_2, c_6	$(y^{17}-17y^{16}+\cdots+17y-1)(y^{83}-56y^{82}+\cdots+97428y-5329)$
c_3, c_4, c_9	$(y^{17}-20y^{16}+\cdots+12y-1)(y^{83}-83y^{82}+\cdots-304y-64)$
c_5	$(y^{17}-6y^{15}+\cdots+3y-1)(y^{83}+y^{82}+\cdots+750y-1)$
c_7, c_8, c_{11} c_{12}	$(y^{17}-24y^{16}+\cdots+24y-1)(y^{83}-99y^{82}+\cdots+83y-1)$
c_{10}	$(y^{17}-11y^{16}+\cdots+9y-1)$ $\cdot(y^{83}-34y^{82}+\cdots+95556644y-2436721)$