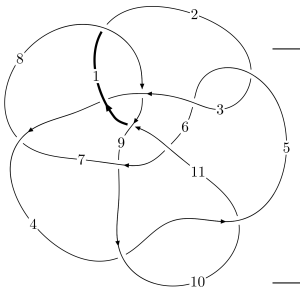
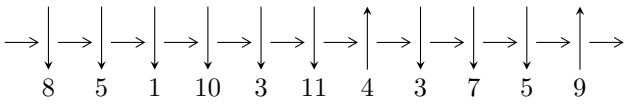
$11n_{174}$ $(K11n_{174})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 4.62695 \times 10^{170} u^{68} + 1.38051 \times 10^{170} u^{67} + \cdots + 1.85733 \times 10^{172} b - 1.66494 \times 10^{173}, \\ & 1.82489 \times 10^{173} u^{68} + 1.22555 \times 10^{173} u^{67} + \cdots + 5.55342 \times 10^{174} a + 8.51358 \times 10^{174}, \\ & u^{69} + u^{68} + \cdots + 1241u - 299 \rangle \\ I_2^u = \langle & -169379u^{20} - 231222u^{19} + \cdots + 944459b + 1224184, \\ & -2844830u^{20} - 1101150u^{19} + \cdots + 2833377a + 1086592,\ u^{21} - 8u^{19} + \cdots - 5u + 3 \rangle \end{aligned}$$

* 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. $\boldsymbol{I_1^u = \langle 4.63 \times 10^{170} u^{68} + 1.38 \times 10^{170} u^{67} + \cdots + 1.86 \times 10^{172} b - 1.66 \times 10^{173},\ 1.82 \times 10^{173} u^{68} + 1.23 \times 10^{173} u^{67} + \cdots + 5.55 \times 10^{174} a + 8.51 \times 10^{174},\ u^{69} + u^{68} + \cdots + 1241 u - 299 \rangle}$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_4 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.0328607u^{68} - 0.0220684u^{67} + \cdots - 15.5573u - 1.53303 \\ -0.0249118u^{68} - 0.00743278u^{67} + \cdots - 37.1756u + 8.96412 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.0208503u^{68} - 0.0263337u^{67} + \cdots - 21.4788u + 0.466293 \\ -0.0129014u^{68} - 0.0116982u^{67} + \cdots - 43.0971u + 10.9635 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.0274714u^{68} - 0.0273600u^{67} + \cdots - 29.5143u + 4.20418 \\ -0.00783605u^{68} - 0.0117040u^{67} + \cdots - 22.3092u + 5.77052 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.0933496u^{68} + 0.0340529u^{67} + \cdots + 276.120u - 53.7846 \\ 0.0202620u^{68} - 0.00602140u^{67} + \cdots + 101.166u - 24.4436 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.126494u^{68} - 0.0228619u^{67} + \cdots - 311.080u + 71.5076 \\ -0.0303872u^{68} - 0.00849253u^{67} + \cdots - 125.465u + 30.8477 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.0862458u^{68} + 0.0186000u^{67} + \cdots + 59.5111u + 0.630964 \\ 0.176390u^{68} + 0.0257365u^{67} + \cdots + 229.858u - 37.9084 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.0862458u^{68} + 0.0186000u^{67} + \cdots + 59.5111u + 0.630964 \\ 0.0922526u^{68} + 0.0308119u^{67} + \cdots + 120.122u - 17.6823 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.0862458u^{68} + 0.0186000u^{67} + \cdots + 59.5111u + 0.630964 \\ 0.0922526u^{68} + 0.0308119u^{67} + \cdots + 120.122u - 17.6823 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 1.16602u^{68} + 0.125596u^{67} + \cdots + 2374.59u - 461.565$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{69}+u^{68}+\cdots-14400u+2701$
c_2, c_5	$u^{69}+23u^{67}+\cdots+26u+1$
c_3	$u^{69}-4u^{68}+\cdots-2u+1$
c_4, c_{10}	$u^{69}-u^{68}+\cdots+1241u+299$
c_6	$u^{69}+5u^{68}+\cdots+41005u-959$
c_7	$u^{69}-3u^{68}+\cdots-1626u-131$
c_8	$u^{69}-u^{68}+\cdots+26u-1$
c_9	$u^{69}+6u^{68}+\cdots-431u-77$
c_{11}	$u^{69}+5u^{68}+\cdots-144u+13$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{69} + y^{68} + \cdots + 37585944y - 7295401$
c_2, c_5	$y^{69} + 46y^{68} + \cdots + 142y - 1$
c_3	$y^{69} - 16y^{68} + \cdots - 92y - 1$
c_4, c_{10}	$y^{69} - 39y^{68} + \cdots + 2462795y - 89401$
c_6	$y^{69} + 5y^{68} + \cdots + 1401617939y - 919681$
c_7	$y^{69} + 5y^{68} + \cdots + 3046570y - 17161$
c_8	$y^{69} + 7y^{68} + \cdots + 6292y - 1$
c_9	$y^{69} - 28y^{68} + \cdots + 272925y - 5929$
c_{11}	$y^{69} - 9y^{68} + \cdots + 42316y - 169$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.646999 + 0.771417I$ $a = -0.211192 - 0.326936I$ $b = 0.896559 - 0.908886I$	$0.416185 + 1.079370I$	0
$u = 0.646999 - 0.771417I$ $a = -0.211192 + 0.326936I$ $b = 0.896559 + 0.908886I$	$0.416185 - 1.079370I$	0
$u = -0.983915 + 0.214466I$ $a = 1.212160 + 0.288286I$ $b = 1.085450 - 0.882631I$	$-4.34006 + 3.63990I$	0
$u = -0.983915 - 0.214466I$ $a = 1.212160 - 0.288286I$ $b = 1.085450 + 0.882631I$	$-4.34006 - 3.63990I$	0
$u = -0.989342$ $a = 2.42880$ $b = 2.35178$	-7.69036	-12.4710
$u = 0.544955 + 0.860146I$ $a = -0.349532 + 0.618138I$ $b = -0.949040 + 0.622220I$	$-1.48384 + 3.15855I$	0
$u = 0.544955 - 0.860146I$ $a = -0.349532 - 0.618138I$ $b = -0.949040 - 0.622220I$	$-1.48384 - 3.15855I$	0
$u = 0.937671 + 0.242423I$ $a = 1.80821 + 0.79221I$ $b = 0.998024 - 0.477800I$	$0.065178 - 1.027540I$	0
$u = 0.937671 - 0.242423I$ $a = 1.80821 - 0.79221I$ $b = 0.998024 + 0.477800I$	$0.065178 + 1.027540I$	0
$u = 0.912710 + 0.496042I$ $a = 0.030686 + 0.640118I$ $b = 0.438358 - 1.147020I$	$3.14658 + 2.19858I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.912710 - 0.496042I$ $a = 0.030686 - 0.640118I$ $b = 0.438358 + 1.147020I$	$3.14658 - 2.19858I$	0
$u = -0.879619 + 0.352426I$ $a = -0.556829 - 1.277600I$ $b = -0.775991 + 0.537886I$	$-4.72951 + 5.62545I$	$-7.00000 - 8.05479I$
$u = -0.879619 - 0.352426I$ $a = -0.556829 + 1.277600I$ $b = -0.775991 - 0.537886I$	$-4.72951 - 5.62545I$	$-7.00000 + 8.05479I$
$u = -0.992117 + 0.371780I$ $a = -0.398508 - 0.958996I$ $b = -0.832640 + 0.218514I$	$-5.20276 - 2.53834I$	0
$u = -0.992117 - 0.371780I$ $a = -0.398508 + 0.958996I$ $b = -0.832640 - 0.218514I$	$-5.20276 + 2.53834I$	0
$u = -0.551335 + 0.759408I$ $a = -1.45706 - 0.66527I$ $b = -0.848128 + 0.357950I$	$4.60897 + 1.94484I$	$-7.00000 - 4.19773I$
$u = -0.551335 - 0.759408I$ $a = -1.45706 + 0.66527I$ $b = -0.848128 - 0.357950I$	$4.60897 - 1.94484I$	$-7.00000 + 4.19773I$
$u = -0.781416 + 0.747040I$ $a = -0.845155 + 0.035539I$ $b = 0.117045 - 0.392685I$	$3.15602 + 2.89631I$	0
$u = -0.781416 - 0.747040I$ $a = -0.845155 - 0.035539I$ $b = 0.117045 + 0.392685I$	$3.15602 - 2.89631I$	0
$u = 0.836552 + 0.355471I$ $a = 3.41431 + 0.11009I$ $b = 0.502414 + 0.462655I$	$3.55336 - 5.75372I$	$-7.00000 + 11.54806I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.836552 - 0.355471I$ $a = 3.41431 - 0.11009I$ $b = 0.502414 - 0.462655I$	$3.55336 + 5.75372I$	$-7.00000 - 11.54806I$
$u = -0.843450 + 0.242120I$ $a = 1.26133 + 1.68155I$ $b = 1.057060 + 0.267031I$	$-3.83982 - 1.81111I$	$-13.9331 + 2.5659I$
$u = -0.843450 - 0.242120I$ $a = 1.26133 - 1.68155I$ $b = 1.057060 - 0.267031I$	$-3.83982 + 1.81111I$	$-13.9331 - 2.5659I$
$u = -0.944665 + 0.609755I$ $a = -0.642781 - 0.314129I$ $b = -0.493148 - 0.791344I$	$3.48160 + 3.20310I$	0
$u = -0.944665 - 0.609755I$ $a = -0.642781 + 0.314129I$ $b = -0.493148 + 0.791344I$	$3.48160 - 3.20310I$	0
$u = -0.812640$ $a = 3.87743$ $b = 2.19181$	-6.98195	-37.6100
$u = -1.083740 + 0.490953I$ $a = -0.337664 - 0.729476I$ $b = -0.69070 - 1.52502I$	$2.99415 + 8.36107I$	0
$u = -1.083740 - 0.490953I$ $a = -0.337664 + 0.729476I$ $b = -0.69070 + 1.52502I$	$2.99415 - 8.36107I$	0
$u = 1.003500 + 0.664719I$ $a = 1.64373 - 0.77917I$ $b = 1.29183 + 0.97984I$	$-0.66031 - 6.51484I$	0
$u = 1.003500 - 0.664719I$ $a = 1.64373 + 0.77917I$ $b = 1.29183 - 0.97984I$	$-0.66031 + 6.51484I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.138230 + 0.429957I$ $a = -1.47102 + 0.04439I$ $b = -0.783779 - 0.565791I$	$-0.86519 - 1.56917I$	0
$u = 1.138230 - 0.429957I$ $a = -1.47102 - 0.04439I$ $b = -0.783779 + 0.565791I$	$-0.86519 + 1.56917I$	0
$u = 1.073130 + 0.613211I$ $a = -1.71878 + 0.44891I$ $b = -1.43565 - 0.67603I$	$-3.14777 - 8.57745I$	0
$u = 1.073130 - 0.613211I$ $a = -1.71878 - 0.44891I$ $b = -1.43565 + 0.67603I$	$-3.14777 + 8.57745I$	0
$u = 1.181450 + 0.456884I$ $a = 1.69529 + 0.24281I$ $b = 1.38781 + 0.83986I$	$-1.06984 - 5.59848I$	0
$u = 1.181450 - 0.456884I$ $a = 1.69529 - 0.24281I$ $b = 1.38781 - 0.83986I$	$-1.06984 + 5.59848I$	0
$u = -0.461685 + 0.555961I$ $a = -2.67569 - 0.54050I$ $b = -0.783354 + 0.742055I$	$4.89807 - 4.12724I$	$-4.69782 + 0.44028I$
$u = -0.461685 - 0.555961I$ $a = -2.67569 + 0.54050I$ $b = -0.783354 - 0.742055I$	$4.89807 + 4.12724I$	$-4.69782 - 0.44028I$
$u = 0.345763 + 0.592216I$ $a = -0.397171 - 0.641878I$ $b = 0.759436 + 0.517199I$	$-0.99239 - 1.75950I$	$-5.61831 + 3.16702I$
$u = 0.345763 - 0.592216I$ $a = -0.397171 + 0.641878I$ $b = 0.759436 - 0.517199I$	$-0.99239 + 1.75950I$	$-5.61831 - 3.16702I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.303150+0.255913I$ $a=\ \ 1.199260-0.077483I$ $b=\ \ 0.695903-0.824477I$	$-3.03191+4.92813I$	0
$u=-1.303150-0.255913I$ $a=\ \ 1.199260+0.077483I$ $b=\ \ 0.695903+0.824477I$	$-3.03191-4.92813I$	0
$u=-0.264694+1.302280I$ $a=-0.276135-0.075262I$ $b=-0.628096-0.543055I$	$5.46533-1.95793I$	0
$u=-0.264694-1.302280I$ $a=-0.276135+0.075262I$ $b=-0.628096+0.543055I$	$5.46533+1.95793I$	0
$u=-1.34209$ $a=\ \ 1.52954$ $b=\ \ 1.24410$	-6.44945	0
$u=-0.284379+1.314310I$ $a=-0.186188-0.177334I$ $b=-0.982920-0.710312I$	$4.22642-9.68925I$	0
$u=-0.284379-1.314310I$ $a=-0.186188+0.177334I$ $b=-0.982920+0.710312I$	$4.22642+9.68925I$	0
$u=\ \ 1.009230+0.891812I$ $a=\ \ 0.469205-0.687863I$ $b=\ \ 1.228300+0.212557I$	$-0.78649-3.40776I$	0
$u=\ \ 1.009230-0.891812I$ $a=\ \ 0.469205+0.687863I$ $b=\ \ 1.228300-0.212557I$	$-0.78649+3.40776I$	0
$u=\ \ 1.386720+0.203029I$ $a=-1.67954+0.82158I$ $b=-0.652595-0.295438I$	$-1.67434-4.68821I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.386720 - 0.203029I$ $a = -1.67954 - 0.82158I$ $b = -0.652595 + 0.295438I$	$-1.67434 + 4.68821I$	0
$u = 0.263199 + 0.512655I$ $a = 0.314251 - 0.278779I$ $b = 0.068496 + 0.982153I$	$1.46946 - 2.23986I$	$-4.09553 + 5.07809I$
$u = 0.263199 - 0.512655I$ $a = 0.314251 + 0.278779I$ $b = 0.068496 - 0.982153I$	$1.46946 + 2.23986I$	$-4.09553 - 5.07809I$
$u = -1.44216 + 0.21699I$ $a = 1.45596 - 0.24216I$ $b = 1.35370 - 1.16416I$	$-6.77713 + 4.78765I$	0
$u = -1.44216 - 0.21699I$ $a = 1.45596 + 0.24216I$ $b = 1.35370 + 1.16416I$	$-6.77713 - 4.78765I$	0
$u = -1.34664 + 0.66399I$ $a = -1.40126 - 0.24609I$ $b = -1.056310 + 0.681780I$	$1.92930 + 8.74493I$	0
$u = -1.34664 - 0.66399I$ $a = -1.40126 + 0.24609I$ $b = -1.056310 - 0.681780I$	$1.92930 - 8.74493I$	0
$u = -1.34848 + 0.70986I$ $a = -1.49515 - 0.27888I$ $b = -1.30284 + 0.92320I$	$0.8188 + 16.7284I$	0
$u = -1.34848 - 0.70986I$ $a = -1.49515 + 0.27888I$ $b = -1.30284 - 0.92320I$	$0.8188 - 16.7284I$	0
$u = 0.48219 + 1.46172I$ $a = -0.058144 - 0.214259I$ $b = 0.383661 - 0.274092I$	$4.45642 - 1.12527I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.48219 - 1.46172I$ $a = -0.058144 + 0.214259I$ $b = 0.383661 + 0.274092I$	$4.45642 + 1.12527I$	0
$u = 1.35260 + 0.78453I$ $a = 0.783396 + 0.049976I$ $b = 0.837091 + 0.848083I$	$1.30082 - 6.59534I$	0
$u = 1.35260 - 0.78453I$ $a = 0.783396 - 0.049976I$ $b = 0.837091 - 0.848083I$	$1.30082 + 6.59534I$	0
$u = 0.407799 + 0.154731I$ $a = 1.14417 - 1.09443I$ $b = 0.473737 - 1.265520I$	$1.79868 + 2.32213I$	$-6.69752 - 8.58341I$
$u = 0.407799 - 0.154731I$ $a = 1.14417 + 1.09443I$ $b = 0.473737 + 1.265520I$	$1.79868 - 2.32213I$	$-6.69752 + 8.58341I$
$u = 0.419858$ $a = -0.693573$ $b = 0.163880$	-0.763533	-13.2570
$u = -1.68905$ $a = -1.34682$ $b = -0.835443$	-10.1736	0
$u = 1.69539 + 0.17399I$ $a = -0.834045 + 0.259613I$ $b = -0.917744 + 0.009907I$	$-3.02414 + 3.47680I$	0
$u = 1.69539 - 0.17399I$ $a = -0.834045 - 0.259613I$ $b = -0.917744 - 0.009907I$	$-3.02414 - 3.47680I$	0

II.

$\boldsymbol{I_2^u = \langle -1.69\times 10^5 u^{20} - 2.31\times 10^5 u^{19} + \cdots + 9.44\times 10^5 b + 1.22\times 10^6,\ -2.84\times 10^6 u^{20} - 1.10\times 10^6 u^{19} + \cdots + 2.83\times 10^6 a + 1.09\times 10^6,\ u^{21} - 8u^{19} + \cdots - 5u + 3\rangle}$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_4 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1.00404u^{20} + 0.388635u^{19} + \cdots + 1.07419u - 0.383497 \\ 0.179340u^{20} + 0.244820u^{19} + \cdots + 0.837749u - 1.29617 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.278065u^{20} + 0.424159u^{19} + \cdots + 2.82922u + 0.0479498 \\ -0.546638u^{20} + 0.280344u^{19} + \cdots + 2.59278u - 0.864728 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.393839u^{20} + 0.436626u^{19} + \cdots + 2.98089u - 0.513766 \\ -0.0848994u^{20} + 0.462763u^{19} + \cdots + 2.90831u - 1.44015 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1.76207u^{20} + 1.35703u^{19} + \cdots + 5.66155u - 7.63449 \\ 0.844115u^{20} + 0.284923u^{19} + \cdots + 1.65062u - 3.63281 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 1.02305u^{20} + 0.397755u^{19} + \cdots - 3.35591u - 0.933981 \\ 1.06778u^{20} + 0.930275u^{19} + \cdots - 1.21589u - 1.92881 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.111242u^{20} - 0.225450u^{19} + \cdots - 1.70101u + 1.47329 \\ -0.986755u^{20} + 0.623445u^{19} + \cdots + 3.11692u + 0.482363 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.111242u^{20} - 0.225450u^{19} + \cdots - 1.70101u + 1.47329 \\ -0.821127u^{20} + 0.800904u^{19} + \cdots + 4.57789u - 0.193986 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.111242u^{20} - 0.225450u^{19} + \cdots - 1.70101u + 1.47329 \\ -0.821127u^{20} + 0.800904u^{19} + \cdots + 4.57789u - 0.193986 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -\frac{6854663}{944459}u^{20} - \frac{94727}{944459}u^{19} + \cdots + \frac{15667372}{944459}u - \frac{1422408}{944459}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{21} - 6u^{19} + \cdots + 2u + 3$
c_2	$u^{21} - u^{20} + \cdots - 2u - 1$
c_3	$u^{21} + 7u^{20} + \cdots + 6u + 1$
c_4	$u^{21} - 8u^{19} + \cdots - 5u - 3$
c_5	$u^{21} + u^{20} + \cdots - 2u + 1$
c_6	$u^{21} + 4u^{20} + \cdots + 97u + 7$
c_7	$u^{21} - 8u^{18} + \cdots - 26u - 1$
c_8	$u^{21} - 5u^{19} + \cdots - 4u - 1$
c_9	$u^{21} + 11u^{20} + \cdots + 9u + 1$
c_{10}	$u^{21} - 8u^{19} + \cdots - 5u + 3$
c_{11}	$u^{21} - 2u^{20} + \cdots - 4u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{21} - 12y^{20} + \cdots + 64y - 9$
c_2, c_5	$y^{21} + 5y^{20} + \cdots + 14y - 1$
c_3	$y^{21} - 9y^{20} + \cdots - 16y^2 - 1$
c_4, c_{10}	$y^{21} - 16y^{20} + \cdots + 55y - 9$
c_6	$y^{21} - 16y^{20} + \cdots + 11327y - 49$
c_7	$y^{21} - 6y^{19} + \cdots + 666y - 1$
c_8	$y^{21} - 10y^{20} + \cdots + 12y - 1$
c_9	$y^{21} - 13y^{20} + \cdots + 9y - 1$
c_{11}	$y^{21} - 2y^{20} + \cdots + 24y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.047640+0.248949I$ $a=\ \ 1.11386+1.03676I$ $b=\ \ 0.889867-0.517208I$	$-5.46548+5.39204I$	$-17.4584-5.1370I$
$u=-1.047640-0.248949I$ $a=\ \ 1.11386-1.03676I$ $b=\ \ 0.889867+0.517208I$	$-5.46548-5.39204I$	$-17.4584+5.1370I$
$u=\ \ 1.16767$ $a=-2.18668$ $b=-2.15365$	-8.35390	-22.8760
$u=-0.679857+0.446838I$ $a=-0.127896-0.264606I$ $b=-0.613519-1.245460I$	$1.77824-1.61097I$	$-7.53353-1.62371I$
$u=-0.679857-0.446838I$ $a=-0.127896+0.264606I$ $b=-0.613519+1.245460I$	$1.77824+1.61097I$	$-7.53353+1.62371I$
$u=-1.173280+0.260964I$ $a=\ \ 0.881494+0.887530I$ $b=\ \ 0.913294-0.046728I$	$-5.83828-3.07420I$	$-16.8807+4.9165I$
$u=-1.173280-0.260964I$ $a=\ \ 0.881494-0.887530I$ $b=\ \ 0.913294+0.046728I$	$-5.83828+3.07420I$	$-16.8807-4.9165I$
$u=\ \ 0.785925$ $a=-3.72133$ $b=-2.23310$	-6.81637	11.9480
$u=-1.120180+0.600951I$ $a=-1.47135-0.18734I$ $b=-1.13102+0.89771I$	$0.00904+5.86285I$	$-6.73177-5.24479I$
$u=-1.120180-0.600951I$ $a=-1.47135+0.18734I$ $b=-1.13102-0.89771I$	$0.00904-5.86285I$	$-6.73177+5.24479I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.560710 + 0.288461I$ $a = 3.24760 - 1.40038I$ $b = 0.114885 - 0.587959I$	$3.70067 - 5.02391I$	$-6.64273 + 2.70695I$
$u = 0.560710 - 0.288461I$ $a = 3.24760 + 1.40038I$ $b = 0.114885 + 0.587959I$	$3.70067 + 5.02391I$	$-6.64273 - 2.70695I$
$u = 1.40713 + 0.19832I$ $a = -1.50239 - 0.29253I$ $b = -1.40025 - 1.20102I$	$-6.98589 - 4.93986I$	$-24.1840 + 13.1442I$
$u = 1.40713 - 0.19832I$ $a = -1.50239 + 0.29253I$ $b = -1.40025 + 1.20102I$	$-6.98589 + 4.93986I$	$-24.1840 - 13.1442I$
$u = 0.27754 + 1.39957I$ $a = 0.064235 - 0.253321I$ $b = -0.295868 - 0.174182I$	$4.41960 - 1.49996I$	$-7.35710 + 9.23152I$
$u = 0.27754 - 1.39957I$ $a = 0.064235 + 0.253321I$ $b = -0.295868 + 0.174182I$	$4.41960 + 1.49996I$	$-7.35710 - 9.23152I$
$u = 0.181335 + 0.523673I$ $a = 0.794687 + 1.024240I$ $b = -0.878799 + 0.633409I$	$-2.44382 + 2.36069I$	$-11.11778 - 3.12439I$
$u = 0.181335 - 0.523673I$ $a = 0.794687 - 1.024240I$ $b = -0.878799 - 0.633409I$	$-2.44382 - 2.36069I$	$-11.11778 + 3.12439I$
$u = 1.45442 + 0.23658I$ $a = -1.196910 + 0.367608I$ $b = -0.476403 - 0.419593I$	$-1.14902 - 4.42293I$	$-3.30825 + 2.88214I$
$u = 1.45442 - 0.23658I$ $a = -1.196910 - 0.367608I$ $b = -0.476403 + 0.419593I$	$-1.14902 + 4.42293I$	$-3.30825 - 2.88214I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.67395$		
$a=-1.36531$	-10.2279	-83.6430
$b=-0.857609$		

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{21}-6u^{19}+\cdots+2u+3)(u^{69}+u^{68}+\cdots-14400u+2701)$
c_2	$(u^{21}-u^{20}+\cdots-2u-1)(u^{69}+23u^{67}+\cdots+26u+1)$
c_3	$(u^{21}+7u^{20}+\cdots+6u+1)(u^{69}-4u^{68}+\cdots-2u+1)$
c_4	$(u^{21}-8u^{19}+\cdots-5u-3)(u^{69}-u^{68}+\cdots+1241u+299)$
c_5	$(u^{21}+u^{20}+\cdots-2u+1)(u^{69}+23u^{67}+\cdots+26u+1)$
c_6	$(u^{21}+4u^{20}+\cdots+97u+7)(u^{69}+5u^{68}+\cdots+41005u-959)$
c_7	$(u^{21}-8u^{18}+\cdots-26u-1)(u^{69}-3u^{68}+\cdots-1626u-131)$
c_8	$(u^{21}-5u^{19}+\cdots-4u-1)(u^{69}-u^{68}+\cdots+26u-1)$
c_9	$(u^{21}+11u^{20}+\cdots+9u+1)(u^{69}+6u^{68}+\cdots-431u-77)$
c_{10}	$(u^{21}-8u^{19}+\cdots-5u+3)(u^{69}-u^{68}+\cdots+1241u+299)$
c_{11}	$(u^{21}-2u^{20}+\cdots-4u-1)(u^{69}+5u^{68}+\cdots-144u+13)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{21} - 12y^{20} + \cdots + 64y - 9)$ $\cdot (y^{69} + y^{68} + \cdots + 37585944y - 7295401)$
c_2, c_5	$(y^{21} + 5y^{20} + \cdots + 14y - 1)(y^{69} + 46y^{68} + \cdots + 142y - 1)$
c_3	$(y^{21} - 9y^{20} + \cdots - 16y^2 - 1)(y^{69} - 16y^{68} + \cdots - 92y - 1)$
c_4, c_{10}	$(y^{21} - 16y^{20} + \cdots + 55y - 9)(y^{69} - 39y^{68} + \cdots + 2462795y - 89401)$
c_6	$(y^{21} - 16y^{20} + \cdots + 11327y - 49)$ $\cdot (y^{69} + 5y^{68} + \cdots + 1401617939y - 919681)$
c_7	$(y^{21} - 6y^{19} + \cdots + 666y - 1)(y^{69} + 5y^{68} + \cdots + 3046570y - 17161)$
c_8	$(y^{21} - 10y^{20} + \cdots + 12y - 1)(y^{69} + 7y^{68} + \cdots + 6292y - 1)$
c_9	$(y^{21} - 13y^{20} + \cdots + 9y - 1)(y^{69} - 28y^{68} + \cdots + 272925y - 5929)$
c_{11}	$(y^{21} - 2y^{20} + \cdots + 24y - 1)(y^{69} - 9y^{68} + \cdots + 42316y - 169)$