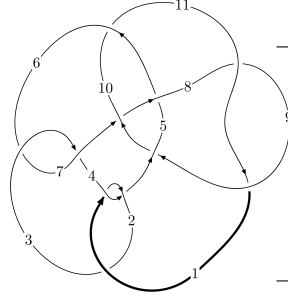
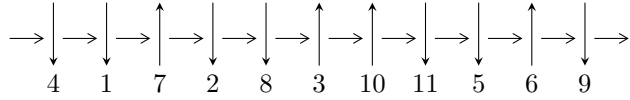


11a₂₅ (K11a₂₅)



A knot diagram¹

Linearized knot diagram



Solving Sequence

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

Ideals for irreducible components² of X_{par}

$$I_1^u = \langle -1.14096 \times 10^{69} u^{81} - 5.58994 \times 10^{69} u^{80} + \dots + 1.56549 \times 10^{69} b + 2.41728 \times 10^{69}, \\ -1.59096 \times 10^{68} u^{81} - 1.08869 \times 10^{69} u^{80} + \dots + 9.78432 \times 10^{67} a + 1.01297 \times 10^{69}, u^{82} + 6u^{81} + \dots - 8u \rangle \\ I_2^u = \langle b^5 - b^4 - 2b^3 + b^2 + b + 1, a - 1, u - 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 87 representations.

¹The 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>).

²All coefficients of polynomials are rational numbers. But the coefficients are sometimes approximated in decimal forms when there is not enough margin.

I.

$$I_1^u = \langle -1.14 \times 10^{69} u^{81} - 5.59 \times 10^{69} u^{80} + \dots + 1.57 \times 10^{69} b + 2.42 \times 10^{69}, -1.59 \times 10^{68} u^{81} - 1.09 \times 10^{69} u^{80} + \dots + 9.78 \times 10^{67} a + 1.01 \times 10^{69}, u^{82} + 6u^{81} + \dots - 8u - 1 \rangle$$

(i) Arc colorings

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

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

$$a_2 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1.62603u^{81} + 11.1269u^{80} + \dots - 32.4970u - 10.3530 \\ 0.728817u^{81} + 3.57073u^{80} + \dots - 2.46718u - 1.54411 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -2.60869u^{81} - 11.2390u^{80} + \dots - 2.43637u - 5.89186 \\ 5.06035u^{81} + 21.3826u^{80} + \dots - 12.4229u - 2.96275 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 1.50444u^{81} + 10.5800u^{80} + \dots - 34.0990u - 11.2965 \\ 1.80874u^{81} + 9.46187u^{80} + \dots - 11.7179u - 3.24701 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.393237u^{81} - 2.05370u^{80} + \dots + 5.46852u + 3.40029 \\ -2.58681u^{81} - 15.0269u^{80} + \dots + 30.1392u + 5.36022 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 3.69251u^{81} + 18.0231u^{80} + \dots - 19.9154u - 0.624870 \\ -2.07099u^{81} - 5.98340u^{80} + \dots - 5.40373u - 0.423689 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -2.73425u^{81} - 10.6085u^{80} + \dots - 4.73671u - 3.63574 \\ -4.68430u^{81} - 29.2185u^{80} + \dots + 55.5656u + 7.41855 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -u^2 + 1 \\ u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -u^2 + 1 \\ u^2 \end{pmatrix}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes = $11.3752u^{81} + 53.0887u^{80} + \dots - 66.0984u - 14.2656$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4	$u^{82} - 6u^{81} + \dots + 8u - 1$
c_2	$u^{82} + 42u^{81} + \dots + 32u + 1$
c_3, c_6	$u^{82} - u^{81} + \dots + 160u + 32$
c_5	$u^{82} - 6u^{81} + \dots + 2u - 1$
c_7	$u^{82} + 14u^{81} + \dots + 2u + 1$
c_8, c_{11}	$u^{82} - 2u^{81} + \dots + 14u + 1$
c_9	$u^{82} + 2u^{81} + \dots - 20520u - 1647$
c_{10}	$u^{82} - 2u^{81} + \dots - 2362u - 484$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4	$y^{82} - 42y^{81} + \dots - 32y + 1$
c_2	$y^{82} + 2y^{81} + \dots - 484y + 1$
c_3, c_6	$y^{82} - 33y^{81} + \dots - 19968y + 1024$
c_5	$y^{82} - 14y^{81} + \dots - 6y + 1$
c_7	$y^{82} + 6y^{81} + \dots + 14y + 1$
c_8, c_{11}	$y^{82} - 58y^{81} + \dots + 14y + 1$
c_9	$y^{82} + 50y^{81} + \dots - 261288342y + 2712609$
c_{10}	$y^{82} + 90y^{81} + \dots + 10862436y + 234256$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.573215 + 0.805489I$ $a = -0.878259 - 0.430787I$ $b = 1.087480 + 0.153969I$	$-2.85407 - 3.43010I$	0
$u = 0.573215 - 0.805489I$ $a = -0.878259 + 0.430787I$ $b = 1.087480 - 0.153969I$	$-2.85407 + 3.43010I$	0
$u = -0.196895 + 0.993276I$ $a = -0.292028 - 0.361855I$ $b = 1.062450 + 0.212626I$	$0.01560 - 3.91593I$	0
$u = -0.196895 - 0.993276I$ $a = -0.292028 + 0.361855I$ $b = 1.062450 - 0.212626I$	$0.01560 + 3.91593I$	0
$u = -0.268436 + 0.946194I$ $a = -0.613930 - 1.004810I$ $b = 1.36047 + 0.56106I$	$-1.22744 - 12.16920I$	0
$u = -0.268436 - 0.946194I$ $a = -0.613930 + 1.004810I$ $b = 1.36047 - 0.56106I$	$-1.22744 + 12.16920I$	0
$u = -0.725256 + 0.718006I$ $a = -0.294348 - 0.999996I$ $b = 0.372669 + 0.922938I$	$5.22827 + 3.35824I$	0
$u = -0.725256 - 0.718006I$ $a = -0.294348 + 0.999996I$ $b = 0.372669 - 0.922938I$	$5.22827 - 3.35824I$	0
$u = 0.974615 + 0.396279I$ $a = 0.549380 + 0.539251I$ $b = -0.054094 - 0.154978I$	$-1.87549 - 1.38403I$	0
$u = 0.974615 - 0.396279I$ $a = 0.549380 - 0.539251I$ $b = -0.054094 + 0.154978I$	$-1.87549 + 1.38403I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.030350 + 0.222684I$ $a = 0.939397 + 0.259886I$ $b = 1.42187 - 0.12543I$	$-7.77694 + 4.95365I$	0
$u = -1.030350 - 0.222684I$ $a = 0.939397 - 0.259886I$ $b = 1.42187 + 0.12543I$	$-7.77694 - 4.95365I$	0
$u = 1.06725$ $a = 2.54402$ $b = -1.09577$	-3.80714	0
$u = -1.056730 + 0.265244I$ $a = 0.834912 + 0.256843I$ $b = 1.46239 + 0.32296I$	$-8.00907 - 3.75643I$	0
$u = -1.056730 - 0.265244I$ $a = 0.834912 - 0.256843I$ $b = 1.46239 - 0.32296I$	$-8.00907 + 3.75643I$	0
$u = 1.045010 + 0.319225I$ $a = -4.54540 + 3.18845I$ $b = -1.043930 - 0.027951I$	$-3.74856 - 1.03244I$	0
$u = 1.045010 - 0.319225I$ $a = -4.54540 - 3.18845I$ $b = -1.043930 + 0.027951I$	$-3.74856 + 1.03244I$	0
$u = -0.870879 + 0.677783I$ $a = 0.74524 + 1.23544I$ $b = 0.528336 - 0.760241I$	$4.80113 + 1.92406I$	0
$u = -0.870879 - 0.677783I$ $a = 0.74524 - 1.23544I$ $b = 0.528336 + 0.760241I$	$4.80113 - 1.92406I$	0
$u = -0.319570 + 0.836317I$ $a = 0.19390 + 1.45588I$ $b = 0.041190 - 1.176220I$	$2.93914 - 6.11947I$	$0. + 6.25574I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.319570 - 0.836317I$ $a = 0.19390 - 1.45588I$ $b = 0.041190 + 1.176220I$	$2.93914 + 6.11947I$	$0. - 6.25574I$
$u = -0.415240 + 0.792411I$ $a = 0.436581 + 0.572912I$ $b = 0.116621 - 0.310795I$	$2.44851 - 1.57419I$	0
$u = -0.415240 - 0.792411I$ $a = 0.436581 - 0.572912I$ $b = 0.116621 + 0.310795I$	$2.44851 + 1.57419I$	0
$u = -1.023160 + 0.461176I$ $a = 0.803227 + 0.138120I$ $b = -0.516137 - 1.108300I$	$-1.65757 + 0.93442I$	0
$u = -1.023160 - 0.461176I$ $a = 0.803227 - 0.138120I$ $b = -0.516137 + 1.108300I$	$-1.65757 - 0.93442I$	0
$u = 1.105680 + 0.199763I$ $a = 0.993090 - 0.249534I$ $b = -0.182502 - 0.012960I$	$-2.36954 - 0.63816I$	0
$u = 1.105680 - 0.199763I$ $a = 0.993090 + 0.249534I$ $b = -0.182502 + 0.012960I$	$-2.36954 + 0.63816I$	0
$u = -0.728926 + 0.864243I$ $a = -0.678740 - 0.135292I$ $b = 0.948714 + 0.407094I$	$3.48456 - 2.48996I$	0
$u = -0.728926 - 0.864243I$ $a = -0.678740 + 0.135292I$ $b = 0.948714 - 0.407094I$	$3.48456 + 2.48996I$	0
$u = 1.044580 + 0.476716I$ $a = -1.16454 + 1.08799I$ $b = -0.055196 - 1.089590I$	$-1.46560 - 5.42569I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.044580 - 0.476716I$ $a = -1.16454 - 1.08799I$ $b = -0.055196 + 1.089590I$	$-1.46560 + 5.42569I$	0
$u = -1.035010 + 0.523379I$ $a = 0.703329 + 0.786738I$ $b = -0.586949 - 0.306956I$	$-0.96667 + 4.63901I$	0
$u = -1.035010 - 0.523379I$ $a = 0.703329 - 0.786738I$ $b = -0.586949 + 0.306956I$	$-0.96667 - 4.63901I$	0
$u = 0.822458 + 0.162075I$ $a = 4.35993 + 0.23976I$ $b = -0.924124 - 0.155896I$	$-2.85067 - 0.96287I$	$-12.24182 - 4.62200I$
$u = 0.822458 - 0.162075I$ $a = 4.35993 - 0.23976I$ $b = -0.924124 + 0.155896I$	$-2.85067 + 0.96287I$	$-12.24182 + 4.62200I$
$u = 1.099040 + 0.390529I$ $a = -0.93956 + 2.37638I$ $b = -1.39410 - 0.58186I$	$-5.73183 - 3.04738I$	0
$u = 1.099040 - 0.390529I$ $a = -0.93956 - 2.37638I$ $b = -1.39410 + 0.58186I$	$-5.73183 + 3.04738I$	0
$u = 0.373251 + 0.739288I$ $a = -1.15126 + 1.02585I$ $b = 1.294620 - 0.433035I$	$-3.71598 + 6.06156I$	$-4.81312 - 3.61533I$
$u = 0.373251 - 0.739288I$ $a = -1.15126 - 1.02585I$ $b = 1.294620 + 0.433035I$	$-3.71598 - 6.06156I$	$-4.81312 + 3.61533I$
$u = 1.146840 + 0.310629I$ $a = -0.262041 + 1.031410I$ $b = -1.43309 + 0.47733I$	$-5.91812 + 0.62603I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.146840 - 0.310629I$ $a = -0.262041 - 1.031410I$ $b = -1.43309 - 0.47733I$	$-5.91812 - 0.62603I$	0
$u = -0.898916 + 0.791063I$ $a = -0.192333 + 1.289610I$ $b = 1.085630 - 0.509853I$	$2.97750 + 8.50086I$	0
$u = -0.898916 - 0.791063I$ $a = -0.192333 - 1.289610I$ $b = 1.085630 + 0.509853I$	$2.97750 - 8.50086I$	0
$u = -1.098860 + 0.495683I$ $a = -0.251893 - 0.866876I$ $b = -1.67621 - 0.41894I$	$-5.00012 + 4.29669I$	0
$u = -1.098860 - 0.495683I$ $a = -0.251893 + 0.866876I$ $b = -1.67621 + 0.41894I$	$-5.00012 - 4.29669I$	0
$u = -1.095490 + 0.542489I$ $a = -2.14444 - 2.01164I$ $b = -1.121470 + 0.103386I$	$-2.13971 + 6.01246I$	0
$u = -1.095490 - 0.542489I$ $a = -2.14444 + 2.01164I$ $b = -1.121470 - 0.103386I$	$-2.13971 - 6.01246I$	0
$u = -0.505284 + 0.582244I$ $a = 0.71509 - 2.39987I$ $b = -0.783636 + 0.165518I$	$0.603497 - 0.216471I$	$-2.65199 + 5.07001I$
$u = -0.505284 - 0.582244I$ $a = 0.71509 + 2.39987I$ $b = -0.783636 - 0.165518I$	$0.603497 + 0.216471I$	$-2.65199 - 5.07001I$
$u = -0.616890 + 0.459273I$ $a = 0.003549 - 1.194610I$ $b = -0.817286 + 0.838746I$	$-0.34685 + 2.85468I$	$-2.55427 - 7.34325I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.616890 - 0.459273I$		
$a = 0.003549 + 1.194610I$	$-0.34685 - 2.85468I$	$-2.55427 + 7.34325I$
$b = -0.817286 - 0.838746I$		
$u = 1.218450 + 0.212469I$		
$a = 0.801155 + 0.005540I$	$-2.09067 + 2.95787I$	0
$b = -0.111866 + 0.982814I$		
$u = 1.218450 - 0.212469I$		
$a = 0.801155 - 0.005540I$	$-2.09067 - 2.95787I$	0
$b = -0.111866 - 0.982814I$		
$u = -0.256433 + 0.716128I$		
$a = 0.900304 + 0.838602I$	$-1.85423 - 3.78257I$	$-5.86247 + 6.02702I$
$b = -1.31960 - 0.71550I$		
$u = -0.256433 - 0.716128I$		
$a = 0.900304 - 0.838602I$	$-1.85423 + 3.78257I$	$-5.86247 - 6.02702I$
$b = -1.31960 + 0.71550I$		
$u = -0.359004 + 0.663764I$		
$a = -1.33923 + 1.95181I$	$-0.006489 - 1.319230I$	$7.9750 - 14.9866I$
$b = -1.037470 - 0.112404I$		
$u = -0.359004 - 0.663764I$		
$a = -1.33923 - 1.95181I$	$-0.006489 + 1.319230I$	$7.9750 + 14.9866I$
$b = -1.037470 + 0.112404I$		
$u = 1.110380 + 0.566495I$		
$a = 0.44194 - 2.14286I$	$-5.89382 - 11.02700I$	0
$b = 1.36225 + 0.50910I$		
$u = 1.110380 - 0.566495I$		
$a = 0.44194 + 2.14286I$	$-5.89382 + 11.02700I$	0
$b = 1.36225 - 0.50910I$		
$u = -1.133180 + 0.536226I$		
$a = -0.86085 - 1.76202I$	$-4.37377 + 8.54127I$	0
$b = -1.46595 + 0.77759I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.133180 - 0.536226I$ $a = -0.86085 + 1.76202I$ $b = -1.46595 - 0.77759I$	$-4.37377 - 8.54127I$	0
$u = -1.114120 + 0.596036I$ $a = 0.049404 - 0.567613I$ $b = -0.017201 + 0.444698I$	$0.34729 + 6.79546I$	0
$u = -1.114120 - 0.596036I$ $a = 0.049404 + 0.567613I$ $b = -0.017201 - 0.444698I$	$0.34729 - 6.79546I$	0
$u = -1.153020 + 0.586404I$ $a = -1.007640 - 0.736012I$ $b = -0.025777 + 1.279070I$	$0.45408 + 11.38860I$	0
$u = -1.153020 - 0.586404I$ $a = -1.007640 + 0.736012I$ $b = -0.025777 - 1.279070I$	$0.45408 - 11.38860I$	0
$u = 1.174900 + 0.635746I$ $a = 0.105656 - 1.081020I$ $b = 1.099320 + 0.078865I$	$-4.70519 - 2.39134I$	0
$u = 1.174900 - 0.635746I$ $a = 0.105656 + 1.081020I$ $b = 1.099320 - 0.078865I$	$-4.70519 + 2.39134I$	0
$u = -1.210680 + 0.603160I$ $a = 0.73287 + 1.83631I$ $b = 1.41333 - 0.57602I$	$-4.0922 + 17.7863I$	0
$u = -1.210680 - 0.603160I$ $a = 0.73287 - 1.83631I$ $b = 1.41333 + 0.57602I$	$-4.0922 - 17.7863I$	0
$u = 1.336130 + 0.262407I$ $a = 0.643768 - 0.141253I$ $b = 1.34855 - 0.46968I$	$-6.58899 + 8.11200I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.336130 - 0.262407I$ $a = 0.643768 + 0.141253I$ $b = 1.34855 + 0.46968I$	$-6.58899 - 8.11200I$	0
$u = -1.237190 + 0.595619I$ $a = 0.557202 + 1.248800I$ $b = 1.190570 - 0.263500I$	$-3.13741 + 9.59200I$	0
$u = -1.237190 - 0.595619I$ $a = 0.557202 - 1.248800I$ $b = 1.190570 + 0.263500I$	$-3.13741 - 9.59200I$	0
$u = 0.455771 + 0.389865I$ $a = 0.61679 - 2.10839I$ $b = 0.014957 + 0.768895I$	$0.28541 + 1.54658I$	$-0.57343 - 2.06881I$
$u = 0.455771 - 0.389865I$ $a = 0.61679 + 2.10839I$ $b = 0.014957 - 0.768895I$	$0.28541 - 1.54658I$	$-0.57343 + 2.06881I$
$u = -0.222834 + 0.492928I$ $a = 0.02494 - 1.67474I$ $b = -1.49404 + 0.24932I$	$-2.65606 - 0.12519I$	$-6.98986 + 0.10633I$
$u = -0.222834 - 0.492928I$ $a = 0.02494 + 1.67474I$ $b = -1.49404 - 0.24932I$	$-2.65606 + 0.12519I$	$-6.98986 - 0.10633I$
$u = 1.44028 + 0.24640I$ $a = 0.584787 - 0.199933I$ $b = 1.115110 + 0.022821I$	$-5.52870 - 0.86398I$	0
$u = 1.44028 - 0.24640I$ $a = 0.584787 + 0.199933I$ $b = 1.115110 - 0.022821I$	$-5.52870 + 0.86398I$	0
$u = 0.216654 + 0.255543I$ $a = 1.94220 + 1.20034I$ $b = -0.047106 - 0.410466I$	$0.041508 - 1.376630I$	$0.16544 + 4.98668I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.216654 - 0.255543I$		
$a = 1.94220 - 1.20034I$	$0.041508 + 1.376630I$	$0.16544 - 4.98668I$
$b = -0.047106 + 0.410466I$		
$u = -0.197051$		
$a = -4.66830$	-2.55123	-4.11150
$b = -1.34181$		

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

(i) Arc colorings

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

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

$$a_2 = \begin{pmatrix} 1 \\ 1 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1 \\ b \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -b + 1 \\ b \end{pmatrix}$$

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

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

$$a_6 = \begin{pmatrix} 0 \\ -b^4 - b^3 + b^2 + 2b + 1 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0 \\ -b^4 - b^3 + b^2 + 2b + 1 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0 \\ 1 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0 \\ 1 \end{pmatrix}$$

(ii) Obstruction class = 1

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

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.00000$ $a = 1.00000$ $b = -1.21774$	-4.04602	-15.9650
$u = 1.00000$ $a = 1.00000$ $b = -0.309916 + 0.549911I$	$-1.97403 + 1.53058I$	$-3.57269 - 4.45807I$
$u = 1.00000$ $a = 1.00000$ $b = -0.309916 - 0.549911I$	$-1.97403 - 1.53058I$	$-3.57269 + 4.45807I$
$u = 1.00000$ $a = 1.00000$ $b = 1.41878 + 0.21917I$	$-7.51750 - 4.40083I$	$-3.44484 + 1.78781I$
$u = 1.00000$ $a = 1.00000$ $b = 1.41878 - 0.21917I$	$-7.51750 + 4.40083I$	$-3.44484 - 1.78781I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u-1)^5)(u^{82} - 6u^{81} + \dots + 8u - 1)$
c_2	$((u+1)^5)(u^{82} + 42u^{81} + \dots + 32u + 1)$
c_3, c_6	$u^5(u^{82} - u^{81} + \dots + 160u + 32)$
c_4	$((u+1)^5)(u^{82} - 6u^{81} + \dots + 8u - 1)$
c_5	$(u^5 - 3u^4 + 4u^3 - u^2 - u + 1)(u^{82} - 6u^{81} + \dots + 2u - 1)$
c_7	$(u^5 - u^4 + 2u^3 - u^2 + u - 1)(u^{82} + 14u^{81} + \dots + 2u + 1)$
c_8	$(u^5 + u^4 - 2u^3 - u^2 + u - 1)(u^{82} - 2u^{81} + \dots + 14u + 1)$
c_9	$(u^5 - u^4 - 2u^3 + u^2 + u + 1)(u^{82} + 2u^{81} + \dots - 20520u - 1647)$
c_{10}	$(u^5 + u^4 + 2u^3 + u^2 + u + 1)(u^{82} - 2u^{81} + \dots - 2362u - 484)$
c_{11}	$(u^5 - u^4 - 2u^3 + u^2 + u + 1)(u^{82} - 2u^{81} + \dots + 14u + 1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_4	$((y - 1)^5)(y^{82} - 42y^{81} + \dots - 32y + 1)$
c_2	$((y - 1)^5)(y^{82} + 2y^{81} + \dots - 484y + 1)$
c_3, c_6	$y^5(y^{82} - 33y^{81} + \dots - 19968y + 1024)$
c_5	$(y^5 - y^4 + 8y^3 - 3y^2 + 3y - 1)(y^{82} - 14y^{81} + \dots - 6y + 1)$
c_7	$(y^5 + 3y^4 + 4y^3 + y^2 - y - 1)(y^{82} + 6y^{81} + \dots + 14y + 1)$
c_8, c_{11}	$(y^5 - 5y^4 + 8y^3 - 3y^2 - y - 1)(y^{82} - 58y^{81} + \dots + 14y + 1)$
c_9	$(y^5 - 5y^4 + 8y^3 - 3y^2 - y - 1)$ $\cdot (y^{82} + 50y^{81} + \dots - 261288342y + 2712609)$
c_{10}	$(y^5 + 3y^4 + 4y^3 + y^2 - y - 1)$ $\cdot (y^{82} + 90y^{81} + \dots + 10862436y + 234256)$