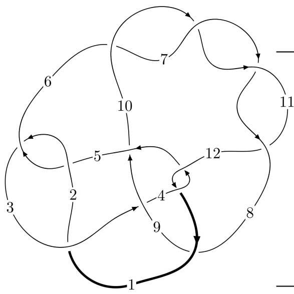
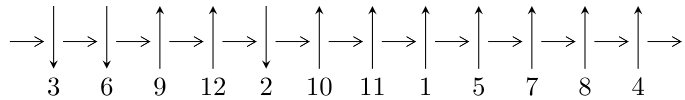
$12a_{0411}$ ($K12a_{0411}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -6.05318 \times 10^{105} u^{79} - 2.71139 \times 10^{106} u^{78} + \cdots + 6.14360 \times 10^{104} b + 1.09875 \times 10^{106},$$
$$1.04172 \times 10^{107} u^{79} + 4.58247 \times 10^{107} u^{78} + \cdots + 3.07180 \times 10^{104} a - 1.70407 \times 10^{107},\ u^{80} + 5u^{79} + \cdots - 6u$$
$$I_2^u = \langle a^2 + 6b + 4a + 4,\ a^4 + 2a^3 + 6a^2 - 4a + 4,\ u + 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 84 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. $\boldsymbol{I_1^u = \langle -6.05\times10^{105}u^{79} - 2.71\times10^{106}u^{78} + \cdots + 6.14\times10^{104}b + 1.10\times10^{106},\ 1.04\times10^{107}u^{79} + 4.58\times10^{107}u^{78} + \cdots + 3.07\times10^{104}a - 1.70\times10^{107},\ u^{80} + 5u^{79} + \cdots - 6u - 1\rangle}$

(i) Arc colorings

$$a_6 = \begin{pmatrix}1\\0\end{pmatrix}$$

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

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

$$a_{11} = \begin{pmatrix}u\\-u^3+u\end{pmatrix}$$

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

$$a_3 = \begin{pmatrix}-339.123u^{79} - 1491.79u^{78} + \cdots + 2436.78u + 554.746\\ 9.85281u^{79} + 44.1335u^{78} + \cdots - 72.3996u - 17.8844\end{pmatrix}$$

$$a_{12} = \begin{pmatrix}-u^3+2u\\u^5-3u^3+u\end{pmatrix}$$

$$a_2 = \begin{pmatrix}-329.270u^{79} - 1447.65u^{78} + \cdots + 2364.38u + 536.861\\ 9.85281u^{79} + 44.1335u^{78} + \cdots - 72.3996u - 17.8844\end{pmatrix}$$

$$a_1 = \begin{pmatrix}-405.884u^{79} - 1783.77u^{78} + \cdots + 2936.77u + 667.230\\ -9.50049u^{79} - 43.5798u^{78} + \cdots + 69.1784u + 16.0314\end{pmatrix}$$

$$a_5 = \begin{pmatrix}142.976u^{79} + 628.242u^{78} + \cdots - 1036.69u - 240.087\\ -19.2570u^{79} - 82.9318u^{78} + \cdots + 136.175u + 30.0287\end{pmatrix}$$

$$a_4 = \begin{pmatrix}164.052u^{79} + 719.781u^{78} + \cdots - 1187.59u - 274.887\\ -18.4406u^{79} - 79.7156u^{78} + \cdots + 130.155u + 28.5642\end{pmatrix}$$

$$a_9 = \begin{pmatrix}-3509.05u^{79} - 15418.0u^{78} + \cdots + 25205.3u + 5785.93\\ 176.743u^{79} + 775.971u^{78} + \cdots - 1267.41u - 292.353\end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -219.391u^{79} - 967.071u^{78} + \cdots + 1569.64u + 365.051$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{80} + 29u^{79} + \cdots + 13u + 4$
c_2, c_5	$u^{80} + 5u^{79} + \cdots - 5u + 2$
c_3	$u^{80} - u^{79} + \cdots - 10u - 1$
c_4, c_{12}	$u^{80} + 5u^{79} + \cdots + 14u + 1$
c_6, c_7, c_{10} c_{11}	$u^{80} - 5u^{79} + \cdots + 6u - 1$
c_8	$u^{80} + 7u^{79} + \cdots - 616u - 121$
c_9	$u^{80} + 15u^{79} + \cdots - 497268u - 29873$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{80} + 47y^{79} + \cdots - 19809y + 16$
c_2, c_5	$y^{80} - 29y^{79} + \cdots - 13y + 4$
c_3	$y^{80} + 9y^{79} + \cdots - 98y + 1$
c_4, c_{12}	$y^{80} + 45y^{79} + \cdots - 134y + 1$
c_6, c_7, c_{10} c_{11}	$y^{80} - 95y^{79} + \cdots - 50y + 1$
c_8	$y^{80} + 299y^{79} + \cdots - 532400y + 14641$
c_9	$y^{80} - 321y^{79} + \cdots - 110926727384y + 892396129$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.982239 + 0.110037I$ $a = 0.60518 + 1.80389I$ $b = -0.832671 - 0.498946I$	$1.69931 - 2.04874I$	0
$u = -0.982239 - 0.110037I$ $a = 0.60518 - 1.80389I$ $b = -0.832671 + 0.498946I$	$1.69931 + 2.04874I$	0
$u = -0.759367 + 0.618307I$ $a = -0.344166 + 0.141148I$ $b = 0.830140 - 0.649151I$	$2.36183 + 0.48997I$	0
$u = -0.759367 - 0.618307I$ $a = -0.344166 - 0.141148I$ $b = 0.830140 + 0.649151I$	$2.36183 - 0.48997I$	0
$u = 0.874853 + 0.530372I$ $a = 0.802361 + 0.585193I$ $b = -0.571602 - 0.856402I$	$1.75059 + 7.74311I$	0
$u = 0.874853 - 0.530372I$ $a = 0.802361 - 0.585193I$ $b = -0.571602 + 0.856402I$	$1.75059 - 7.74311I$	0
$u = 0.873797 + 0.412672I$ $a = 0.39497 + 1.86274I$ $b = 1.069280 - 0.698680I$	$3.64655 + 8.02514I$	0
$u = 0.873797 - 0.412672I$ $a = 0.39497 - 1.86274I$ $b = 1.069280 + 0.698680I$	$3.64655 - 8.02514I$	0
$u = -0.655250 + 0.692019I$ $a = 0.86289 - 1.33749I$ $b = 0.869750 + 0.660212I$	$2.24057 - 4.60261I$	0
$u = -0.655250 - 0.692019I$ $a = 0.86289 + 1.33749I$ $b = 0.869750 - 0.660212I$	$2.24057 + 4.60261I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.862986 + 0.606936I$ $a = -0.60152 - 1.82721I$ $b = -1.072300 + 0.693311I$	$0.23574 + 13.50530I$	0
$u = \quad 0.862986 - 0.606936I$ $a = -0.60152 + 1.82721I$ $b = -1.072300 - 0.693311I$	$0.23574 - 13.50530I$	0
$u = \quad 0.890674 + 0.278765I$ $a = -0.775206 - 0.805171I$ $b = \quad 0.569460 + 0.870192I$	$5.15281 + 2.22250I$	0
$u = \quad 0.890674 - 0.278765I$ $a = -0.775206 + 0.805171I$ $b = \quad 0.569460 - 0.870192I$	$5.15281 - 2.22250I$	0
$u = -1.001950 + 0.553061I$ $a = -0.32963 + 1.53584I$ $b = -0.763637 - 0.645618I$	$2.03589 - 1.14374I$	0
$u = -1.001950 - 0.553061I$ $a = -0.32963 - 1.53584I$ $b = -0.763637 + 0.645618I$	$2.03589 + 1.14374I$	0
$u = \quad 0.086726 + 0.850018I$ $a = -0.681133 + 0.501362I$ $b = -1.019290 - 0.654420I$	$-2.13020 - 8.69514I$	0
$u = \quad 0.086726 - 0.850018I$ $a = -0.681133 - 0.501362I$ $b = -1.019290 + 0.654420I$	$-2.13020 + 8.69514I$	0
$u = \quad 0.673885 + 0.494383I$ $a = \quad 0.633666 + 0.692030I$ $b = \quad 1.176500 - 0.080914I$	$-4.82659 + 6.36458I$	0
$u = \quad 0.673885 - 0.494383I$ $a = \quad 0.633666 - 0.692030I$ $b = \quad 1.176500 + 0.080914I$	$-4.82659 - 6.36458I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.731433 + 0.268270I$ $a = 0.380165 + 0.677378I$ $b = 0.017151 + 0.232479I$	$0.144692 - 0.492251I$	0
$u = -0.731433 - 0.268270I$ $a = 0.380165 - 0.677378I$ $b = 0.017151 - 0.232479I$	$0.144692 + 0.492251I$	0
$u = 0.000926 + 0.775832I$ $a = -0.416848 - 0.459903I$ $b = -0.600120 + 0.713934I$	$-0.90150 - 3.42282I$	0
$u = 0.000926 - 0.775832I$ $a = -0.416848 + 0.459903I$ $b = -0.600120 - 0.713934I$	$-0.90150 + 3.42282I$	0
$u = -1.127500 + 0.540430I$ $a = 0.446319 - 0.595511I$ $b = -0.930935 + 0.641996I$	$1.51642 + 3.88958I$	0
$u = -1.127500 - 0.540430I$ $a = 0.446319 + 0.595511I$ $b = -0.930935 - 0.641996I$	$1.51642 - 3.88958I$	0
$u = 0.705170 + 0.221551I$ $a = 0.143659 - 1.137600I$ $b = -0.379959 + 0.898795I$	$0.71940 + 3.75775I$	$6.00000 - 11.49284I$
$u = 0.705170 - 0.221551I$ $a = 0.143659 + 1.137600I$ $b = -0.379959 - 0.898795I$	$0.71940 - 3.75775I$	$6.00000 + 11.49284I$
$u = -1.272480 + 0.232109I$ $a = -0.077573 - 1.327820I$ $b = 0.862974 + 0.150904I$	$-1.44152 - 0.51003I$	0
$u = -1.272480 - 0.232109I$ $a = -0.077573 + 1.327820I$ $b = 0.862974 - 0.150904I$	$-1.44152 + 0.51003I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.243048 + 0.629200I$ $a = 1.17488 + 1.11461I$ $b = 1.061150 - 0.014230I$	$-6.12935 - 2.55225I$	$-1.74573 + 1.31196I$
$u = 0.243048 - 0.629200I$ $a = 1.17488 - 1.11461I$ $b = 1.061150 + 0.014230I$	$-6.12935 + 2.55225I$	$-1.74573 - 1.31196I$
$u = -0.111177 + 0.623613I$ $a = 1.101240 - 0.355446I$ $b = 0.975206 + 0.620136I$	$0.69805 - 4.57533I$	$7.44408 + 5.23824I$
$u = -0.111177 - 0.623613I$ $a = 1.101240 + 0.355446I$ $b = 0.975206 - 0.620136I$	$0.69805 + 4.57533I$	$7.44408 - 5.23824I$
$u = -0.310855 + 0.540574I$ $a = 0.484610 - 0.177259I$ $b = 0.699014 - 0.609698I$	$1.56224 + 0.31078I$	$10.32905 - 0.04232I$
$u = -0.310855 - 0.540574I$ $a = 0.484610 + 0.177259I$ $b = 0.699014 + 0.609698I$	$1.56224 - 0.31078I$	$10.32905 + 0.04232I$
$u = -0.604081 + 0.001377I$ $a = 13.5746 - 17.1139I$ $b = 0.877405 + 0.507465I$	$-0.68319 - 2.03117I$	$157.990 - 13.051I$
$u = -0.604081 - 0.001377I$ $a = 13.5746 + 17.1139I$ $b = 0.877405 - 0.507465I$	$-0.68319 + 2.03117I$	$157.990 + 13.051I$
$u = 0.540486 + 0.177581I$ $a = 0.36709 - 2.47230I$ $b = -1.008760 + 0.761264I$	$-1.52216 + 3.07297I$	$-0.13001 - 12.94551I$
$u = 0.540486 - 0.177581I$ $a = 0.36709 + 2.47230I$ $b = -1.008760 - 0.761264I$	$-1.52216 - 3.07297I$	$-0.13001 + 12.94551I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.452044$ $a = \quad 0.820522$ $b = \quad 0.201146$	0.707924	14.1880
$u = \quad 1.54810 + 0.07689I$ $a = -0.806628 + 0.115866I$ $b = -0.972871 + 0.136497I$	$5.02760 + 3.22521I$	0
$u = \quad 1.54810 - 0.07689I$ $a = -0.806628 - 0.115866I$ $b = -0.972871 - 0.136497I$	$5.02760 - 3.22521I$	0
$u = \quad 0.357453 + 0.272374I$ $a = -0.28354 - 1.47622I$ $b = -1.082900 + 0.195290I$	$-1.99021 + 1.12837I$	$-0.61556 - 4.33419I$
$u = \quad 0.357453 - 0.272374I$ $a = -0.28354 + 1.47622I$ $b = -1.082900 - 0.195290I$	$-1.99021 - 1.12837I$	$-0.61556 + 4.33419I$
$u = \quad 1.57162$ $a = \quad 0.420961$ $b = \quad 0.775180$	7.67792	0
$u = -1.57728 + 0.00721I$ $a = \quad 0.560042 + 0.801944I$ $b = -1.37891 - 0.39634I$	$4.86129 - 1.42349I$	0
$u = -1.57728 - 0.00721I$ $a = \quad 0.560042 - 0.801944I$ $b = -1.37891 + 0.39634I$	$4.86129 + 1.42349I$	0
$u = -1.59511 + 0.02885I$ $a = \quad 0.80382 + 1.88339I$ $b = -1.05746 - 0.93966I$	$5.96830 - 3.68106I$	0
$u = -1.59511 - 0.02885I$ $a = \quad 0.80382 - 1.88339I$ $b = -1.05746 + 0.93966I$	$5.96830 + 3.68106I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.209332 + 0.339332I$ $a = -0.70138 - 2.09676I$ $b = -0.567508 - 0.324974I$	$-1.43343 - 2.05795I$	$2.20961 + 4.63586I$
$u = -0.209332 - 0.339332I$ $a = -0.70138 + 2.09676I$ $b = -0.567508 + 0.324974I$	$-1.43343 + 2.05795I$	$2.20961 - 4.63586I$
$u = -1.59909 + 0.12620I$ $a = -0.154490 - 0.604773I$ $b = 1.277360 + 0.151788I$	$2.88077 - 8.60117I$	0
$u = -1.59909 - 0.12620I$ $a = -0.154490 + 0.604773I$ $b = 1.277360 - 0.151788I$	$2.88077 + 8.60117I$	0
$u = 1.60983 + 0.00290I$ $a = 1.69153 + 4.69097I$ $b = 0.914469 - 0.540849I$	$7.10700 + 2.05661I$	0
$u = 1.60983 - 0.00290I$ $a = 1.69153 - 4.69097I$ $b = 0.914469 + 0.540849I$	$7.10700 - 2.05661I$	0
$u = -1.62146 + 0.05130I$ $a = 0.25483 + 1.52795I$ $b = -0.314660 - 1.105270I$	$8.79176 - 4.72449I$	0
$u = -1.62146 - 0.05130I$ $a = 0.25483 - 1.52795I$ $b = -0.314660 + 1.105270I$	$8.79176 + 4.72449I$	0
$u = 0.331464 + 0.167817I$ $a = 0.790108 + 0.421831I$ $b = -1.086350 - 0.487000I$	$-2.01483 - 1.42900I$	$-2.63503 - 2.24034I$
$u = 0.331464 - 0.167817I$ $a = 0.790108 - 0.421831I$ $b = -1.086350 + 0.487000I$	$-2.01483 + 1.42900I$	$-2.63503 + 2.24034I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.63729 + 0.04142I$ $a = -0.121690 + 0.165881I$ $b = 0.186036 - 0.459060I$	$8.44312 + 1.45094I$	0
$u = 1.63729 - 0.04142I$ $a = -0.121690 - 0.165881I$ $b = 0.186036 + 0.459060I$	$8.44312 - 1.45094I$	0
$u = 1.63038 + 0.22067I$ $a = 0.09225 + 1.74343I$ $b = 0.968177 - 0.699422I$	$9.99013 + 8.08376I$	0
$u = 1.63038 - 0.22067I$ $a = 0.09225 - 1.74343I$ $b = 0.968177 + 0.699422I$	$9.99013 - 8.08376I$	0
$u = -1.66412 + 0.07716I$ $a = -0.82132 + 1.36692I$ $b = 0.609910 - 1.021180I$	$14.0285 - 3.6133I$	0
$u = -1.66412 - 0.07716I$ $a = -0.82132 - 1.36692I$ $b = 0.609910 + 1.021180I$	$14.0285 + 3.6133I$	0
$u = -1.66410 + 0.11541I$ $a = -0.28155 - 1.88460I$ $b = 1.119640 + 0.766021I$	$12.4183 - 10.0748I$	0
$u = -1.66410 - 0.11541I$ $a = -0.28155 + 1.88460I$ $b = 1.119640 - 0.766021I$	$12.4183 + 10.0748I$	0
$u = 1.66377 + 0.17561I$ $a = -0.762447 - 0.909794I$ $b = 0.720008 + 0.743870I$	$10.73520 + 2.58534I$	0
$u = 1.66377 - 0.17561I$ $a = -0.762447 + 0.909794I$ $b = 0.720008 - 0.743870I$	$10.73520 - 2.58534I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.66760+0.15263I$ $a=\ 0.93902-1.16501I$ $b=-0.587447+0.950346I$	$10.4735-10.3982I$	0
$u=-1.66760-0.15263I$ $a=\ 0.93902+1.16501I$ $b=-0.587447-0.950346I$	$10.4735+10.3982I$	0
$u=-1.66703+0.17926I$ $a=\ 0.08049+1.99128I$ $b=-1.106230-0.731601I$	$8.8607-16.5566I$	0
$u=-1.66703-0.17926I$ $a=\ 0.08049-1.99128I$ $b=-1.106230+0.731601I$	$8.8607+16.5566I$	0
$u=\ 1.69474+0.10689I$ $a=\ 0.26077-1.84251I$ $b=-0.912299+0.690710I$	$11.56300+3.48604I$	0
$u=\ 1.69474-0.10689I$ $a=\ 0.26077+1.84251I$ $b=-0.912299-0.690710I$	$11.56300-3.48604I$	0
$u=\ 1.72076+0.06241I$ $a=\ 0.83025+1.28263I$ $b=-0.796402-0.710069I$	$11.91770-1.88395I$	0
$u=\ 1.72076-0.06241I$ $a=\ 0.83025-1.28263I$ $b=-0.796402+0.710069I$	$11.91770+1.88395I$	0
$u=-0.184682+0.116658I$ $a=-1.73641-5.49293I$ $b=-0.749491-0.451267I$	$-1.42133-2.10255I$	$1.91167+3.48130I$
$u=-0.184682-0.116658I$ $a=-1.73641+5.49293I$ $b=-0.749491+0.451267I$	$-1.42133+2.10255I$	$1.91167-3.48130I$

II. $\boldsymbol{I_2^u = \langle a^2 + 6b + 4a + 4,\ a^4 + 2a^3 + 6a^2 - 4a + 4,\ u + 1\rangle}$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ -1 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} a \\ -\frac{1}{6}a^2 - \frac{2}{3}a - \frac{2}{3} \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -1 \\ 1 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -\frac{1}{6}a^2 + \frac{1}{3}a - \frac{2}{3} \\ -\frac{1}{6}a^2 - \frac{2}{3}a - \frac{2}{3} \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -\frac{1}{6}a^3 - \frac{1}{6}a^2 - \frac{2}{3}a \\ \frac{1}{6}a^3 + \frac{1}{6}a^2 + \frac{2}{3}a - 1 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} \frac{1}{6}a^2 - \frac{1}{3}a + \frac{2}{3} \\ -\frac{1}{6}a^3 - \frac{1}{2}a^2 - a - \frac{1}{3} \end{pmatrix}$$
$$a_4 = \begin{pmatrix} \frac{1}{6}a^3 + \frac{1}{2}a^2 + a + \frac{1}{3} \\ -\frac{1}{3}a^3 - \frac{5}{6}a^2 - \frac{7}{3}a \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -\frac{1}{6}a^3 + \frac{1}{6}a^2 - \frac{1}{3}a + \frac{1}{3} \\ -\frac{1}{3}a^2 - \frac{1}{3}a - \frac{4}{3} \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{2}{3}a^3 + 2a^2 + 4a + \frac{16}{3}$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$(y^2+y+1)^2$
c_2, c_5	$(y^2-y+1)^2$
c_3, c_4, c_{12}	$(y+1)^4$
c_6, c_7, c_{10} c_{11}	$(y-1)^4$
c_8	$y^4-6y^3+11y^2+6y+1$
c_9	$y^4+6y^3+11y^2-6y+1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.00000$ $a = \quad 0.366025 + 0.633975I$ $b = -0.866025 - 0.500000I$	$-\,2.02988I$	$6.00000 + 3.46410I$
$u = -1.00000$ $a = \quad 0.366025 - 0.633975I$ $b = -0.866025 + 0.500000I$	$2.02988I$	$6.00000 - 3.46410I$
$u = -1.00000$ $a = -1.36603 + 2.36603I$ $b = \quad 0.866025 - 0.500000I$	$2.02988I$	$6.00000 - 3.46410I$
$u = -1.00000$ $a = -1.36603 - 2.36603I$ $b = \quad 0.866025 + 0.500000I$	$-\,2.02988I$	$6.00000 + 3.46410I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u^2-u+1)^2)(u^{80}+29u^{79}+\cdots+13u+4)$
c_2, c_5	$(u^4-u^2+1)(u^{80}+5u^{79}+\cdots-5u+2)$
c_3	$((u^2+1)^2)(u^{80}-u^{79}+\cdots-10u-1)$
c_4, c_{12}	$((u^2+1)^2)(u^{80}+5u^{79}+\cdots+14u+1)$
c_6, c_7	$((u+1)^4)(u^{80}-5u^{79}+\cdots+6u-1)$
c_8	$(u^4+4u^3+5u^2+2u+1)(u^{80}+7u^{79}+\cdots-616u-121)$
c_9	$(u^4-2u^3+5u^2-4u+1)(u^{80}+15u^{79}+\cdots-497268u-29873)$
c_{10}, c_{11}	$((u-1)^4)(u^{80}-5u^{79}+\cdots+6u-1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y^2+y+1)^2)(y^{80}+47y^{79}+\cdots-19809y+16)$
c_2, c_5	$((y^2-y+1)^2)(y^{80}-29y^{79}+\cdots-13y+4)$
c_3	$((y+1)^4)(y^{80}+9y^{79}+\cdots-98y+1)$
c_4, c_{12}	$((y+1)^4)(y^{80}+45y^{79}+\cdots-134y+1)$
c_6, c_7, c_{10} c_{11}	$((y-1)^4)(y^{80}-95y^{79}+\cdots-50y+1)$
c_8	$(y^4-6y^3+11y^2+6y+1)(y^{80}+299y^{79}+\cdots-532400y+14641)$
c_9	$(y^4+6y^3+11y^2-6y+1)$ $\cdot\,(y^{80}-321y^{79}+\cdots-110926727384y+892396129)$