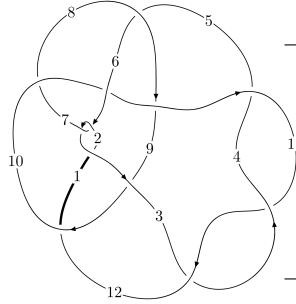
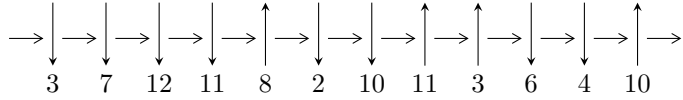


12n₀₅₈₄ (K12n₀₅₈₄)



A knot diagram¹

Linearized knot diagram



Solving Sequence

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

Ideals for irreducible components² of X_{par}

$$I_1^u = \langle -2.84207 \times 10^{81} u^{60} - 2.95633 \times 10^{81} u^{59} + \dots + 5.11199 \times 10^{81} b - 2.88400 \times 10^{82}, \\ -1.14386 \times 10^{81} u^{60} - 4.62548 \times 10^{81} u^{59} + \dots + 1.06887 \times 10^{82} a - 7.85278 \times 10^{82}, \\ u^{61} + u^{60} + \dots - 22u - 23 \rangle$$

$$I_2^u = \langle -17u^{15} - 11u^{14} + \dots + 5b + 24, -38u^{15} - 24u^{14} + \dots + 5a + 51, \\ u^{16} - 4u^{14} - u^{13} + 10u^{12} + 4u^{11} - 18u^{10} - 8u^9 + 25u^8 + 9u^7 - 23u^6 - 6u^5 + 14u^4 + 3u^3 - 5u^2 - u + 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 77 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.

$$\text{I. } I_1^u = \langle -2.84 \times 10^{81} u^{60} - 2.96 \times 10^{81} u^{59} + \dots + 5.11 \times 10^{81} b - 2.88 \times 10^{82}, -1.14 \times 10^{81} u^{60} - 4.63 \times 10^{81} u^{59} + \dots + 1.07 \times 10^{82} a - 7.85 \times 10^{82}, u^{61} + u^{60} + \dots - 22u - 23 \rangle$$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

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

$$a_{10} = \begin{pmatrix} 0.107015u^{60} + 0.432744u^{59} + \dots + 11.5924u + 7.34680 \\ 0.555961u^{60} + 0.578313u^{59} + \dots + 13.5777u + 5.64164 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -1.63482u^{60} - 0.434066u^{59} + \dots - 3.95439u + 24.4321 \\ -1.20730u^{60} - 0.120843u^{59} + \dots + 1.65510u + 29.0484 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -u^2 + 1 \\ -u^4 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.525349u^{60} + 0.268729u^{59} + \dots + 7.94097u + 14.3245 \\ -0.0764035u^{60} + 0.414298u^{59} + \dots + 9.92621u + 12.6193 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.132466u^{60} - 0.942714u^{59} + \dots - 27.4934u - 9.73617 \\ 0.157167u^{60} - 0.596294u^{59} + \dots - 18.0455u - 3.48263 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -1.08158u^{60} - 0.482855u^{59} + \dots - 14.9772u + 30.5122 \\ 0.233874u^{60} - 0.223864u^{59} + \dots - 8.46851u - 1.44589 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.504826u^{60} + 0.228474u^{59} + \dots + 7.64215u + 9.19693 \\ -0.303905u^{60} + 0.301421u^{59} + \dots + 8.47187u + 15.0158 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -1.28481u^{60} + 0.424922u^{59} + \dots + 11.1040u + 38.8528 \\ -0.877631u^{60} - 0.0161271u^{59} + \dots + 0.455782u + 24.0747 \end{pmatrix}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes = $-0.265475u^{60} + 0.396204u^{59} + \dots + 11.1890u - 16.1033$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{61} + 37u^{60} + \dots + 3014u + 529$
c_2, c_6	$u^{61} - u^{60} + \dots - 22u + 23$
c_3, c_4, c_{11}	$u^{61} - 3u^{60} + \dots - u + 1$
c_5	$u^{61} + 5u^{60} + \dots + 128u + 56$
c_7	$u^{61} + u^{60} + \dots + 4795u - 1559$
c_8	$u^{61} + 3u^{60} + \dots + 1189u - 103$
c_9	$u^{61} - u^{60} + \dots - 4288u + 1856$
c_{10}	$u^{61} + u^{60} + \dots - 19u + 1$
c_{12}	$u^{61} - u^{60} + \dots - 120835u + 26113$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{61} - 17y^{60} + \dots + 10572802y - 279841$
c_2, c_6	$y^{61} - 37y^{60} + \dots + 3014y - 529$
c_3, c_4, c_{11}	$y^{61} + 45y^{60} + \dots - 61y - 1$
c_5	$y^{61} + 47y^{60} + \dots - 214112y - 3136$
c_7	$y^{61} - 31y^{60} + \dots + 107411875y - 2430481$
c_8	$y^{61} + 49y^{60} + \dots + 350761y - 10609$
c_9	$y^{61} + 51y^{60} + \dots - 57040896y - 3444736$
c_{10}	$y^{61} + 15y^{60} + \dots + 51y - 1$
c_{12}	$y^{61} + 55y^{60} + \dots + 971678005y - 681888769$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.959151 + 0.188873I$		
$a = 0.71607 - 2.11317I$	$-0.40672 + 5.49798I$	$-3.46413 - 7.66192I$
$b = 0.427222 - 1.250120I$		
$u = -0.959151 - 0.188873I$		
$a = 0.71607 + 2.11317I$	$-0.40672 - 5.49798I$	$-3.46413 + 7.66192I$
$b = 0.427222 + 1.250120I$		
$u = -0.934743 + 0.424563I$		
$a = -0.220618 + 0.026435I$	$1.60124 + 2.09731I$	$-0.52172 - 3.57800I$
$b = -1.043970 + 0.429854I$		
$u = -0.934743 - 0.424563I$		
$a = -0.220618 - 0.026435I$	$1.60124 - 2.09731I$	$-0.52172 + 3.57800I$
$b = -1.043970 - 0.429854I$		
$u = -0.205719 + 0.937770I$		
$a = 0.007890 - 1.331690I$	$-2.24217 + 2.51722I$	$-4.13220 - 2.03658I$
$b = -0.780566 - 0.133806I$		
$u = -0.205719 - 0.937770I$		
$a = 0.007890 + 1.331690I$	$-2.24217 - 2.51722I$	$-4.13220 + 2.03658I$
$b = -0.780566 + 0.133806I$		
$u = 0.162902 + 1.031490I$		
$a = -0.260817 - 1.260900I$	$-6.40462 + 3.64805I$	$-6.12698 - 2.44450I$
$b = 0.544283 - 0.172289I$		
$u = 0.162902 - 1.031490I$		
$a = -0.260817 + 1.260900I$	$-6.40462 - 3.64805I$	$-6.12698 + 2.44450I$
$b = 0.544283 + 0.172289I$		
$u = 0.941999 + 0.077674I$		
$a = -1.08751 - 1.37046I$	$-1.84937 - 1.06710I$	$-7.68501 + 0.20822I$
$b = -1.055650 - 0.247755I$		
$u = 0.941999 - 0.077674I$		
$a = -1.08751 + 1.37046I$	$-1.84937 + 1.06710I$	$-7.68501 - 0.20822I$
$b = -1.055650 + 0.247755I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.937483 + 0.102090I$ $a = 0.484123 + 0.573834I$ $b = 0.98031 - 1.45346I$	$4.81378 + 0.51083I$	$-5.07863 + 3.86372I$
$u = -0.937483 - 0.102090I$ $a = 0.484123 - 0.573834I$ $b = 0.98031 + 1.45346I$	$4.81378 - 0.51083I$	$-5.07863 - 3.86372I$
$u = 1.008430 + 0.362616I$ $a = -1.000510 - 0.605838I$ $b = -2.33129 - 0.84687I$	$0.01276 - 7.14753I$	$-2.20400 + 9.04049I$
$u = 1.008430 - 0.362616I$ $a = -1.000510 + 0.605838I$ $b = -2.33129 + 0.84687I$	$0.01276 + 7.14753I$	$-2.20400 - 9.04049I$
$u = 0.643141 + 0.668518I$ $a = -0.716958 + 0.049390I$ $b = 0.318873 + 0.601995I$	$1.75152 - 2.53902I$	$1.27559 + 4.14078I$
$u = 0.643141 - 0.668518I$ $a = -0.716958 - 0.049390I$ $b = 0.318873 - 0.601995I$	$1.75152 + 2.53902I$	$1.27559 - 4.14078I$
$u = 0.753203 + 0.517931I$ $a = -0.102774 + 0.952076I$ $b = -0.367431 + 1.094570I$	$-1.66195 - 1.20234I$	$-8.53362 + 3.15271I$
$u = 0.753203 - 0.517931I$ $a = -0.102774 - 0.952076I$ $b = -0.367431 - 1.094570I$	$-1.66195 + 1.20234I$	$-8.53362 - 3.15271I$
$u = 0.910915$ $a = 0.473770$ $b = 1.07394$	-1.32772	-8.18480
$u = -0.153240 + 1.083330I$ $a = 0.430101 - 1.162100I$ $b = -0.365491 - 0.155347I$	$-2.13464 - 9.66628I$	$-2.68073 + 5.89377I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.153240 - 1.083330I$		
$a = 0.430101 + 1.162100I$	$-2.13464 + 9.66628I$	$-2.68073 - 5.89377I$
$b = -0.365491 + 0.155347I$		
$u = 1.115530 + 0.094811I$		
$a = -1.368590 + 0.050906I$	$-3.09183 - 0.94578I$	$-8.08189 - 0.53980I$
$b = -2.09969 - 0.80379I$		
$u = 1.115530 - 0.094811I$		
$a = -1.368590 - 0.050906I$	$-3.09183 + 0.94578I$	$-8.08189 + 0.53980I$
$b = -2.09969 + 0.80379I$		
$u = -0.768294 + 0.427994I$		
$a = -0.233622 - 0.672878I$	$1.25803 + 1.85767I$	$3.29586 - 4.00259I$
$b = -0.887371 + 0.068293I$		
$u = -0.768294 - 0.427994I$		
$a = -0.233622 + 0.672878I$	$1.25803 - 1.85767I$	$3.29586 + 4.00259I$
$b = -0.887371 - 0.068293I$		
$u = -0.223321 + 0.842928I$		
$a = 0.897998 + 0.077975I$	$3.62908 + 2.32516I$	$4.48467 - 2.65480I$
$b = 0.036178 + 0.399582I$		
$u = -0.223321 - 0.842928I$		
$a = 0.897998 - 0.077975I$	$3.62908 - 2.32516I$	$4.48467 + 2.65480I$
$b = 0.036178 - 0.399582I$		
$u = 0.889016 + 0.747517I$		
$a = 0.607385 - 0.821852I$	$9.07136 - 2.85087I$	$9.78334 + 0.I$
$b = 1.395130 + 0.149616I$		
$u = 0.889016 - 0.747517I$		
$a = 0.607385 + 0.821852I$	$9.07136 + 2.85087I$	$9.78334 + 0.I$
$b = 1.395130 - 0.149616I$		
$u = 1.130530 + 0.481440I$		
$a = -1.302640 + 0.202022I$	$-3.38137 - 2.36705I$	0
$b = -1.82636 + 0.28273I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.130530 - 0.481440I$ $a = -1.302640 - 0.202022I$ $b = -1.82636 - 0.28273I$	$-3.38137 + 2.36705I$	0
$u = -1.164240 + 0.451221I$ $a = 1.44291 - 0.32158I$ $b = 2.22996 - 0.29926I$	$-3.53482 + 5.70296I$	0
$u = -1.164240 - 0.451221I$ $a = 1.44291 + 0.32158I$ $b = 2.22996 + 0.29926I$	$-3.53482 - 5.70296I$	0
$u = -0.686059 + 0.293330I$ $a = -1.01986 + 1.45708I$ $b = -0.74714 + 1.69501I$	$0.27896 - 3.26826I$	$-2.74807 - 0.82015I$
$u = -0.686059 - 0.293330I$ $a = -1.01986 - 1.45708I$ $b = -0.74714 - 1.69501I$	$0.27896 + 3.26826I$	$-2.74807 + 0.82015I$
$u = -1.228430 + 0.253328I$ $a = 1.293940 - 0.408857I$ $b = 2.05763 - 0.91740I$	$-3.69197 + 4.91295I$	0
$u = -1.228430 - 0.253328I$ $a = 1.293940 + 0.408857I$ $b = 2.05763 + 0.91740I$	$-3.69197 - 4.91295I$	0
$u = -1.225300 + 0.340151I$ $a = 1.215390 - 0.430859I$ $b = 1.97241 - 0.78995I$	$-3.61600 + 4.89193I$	0
$u = -1.225300 - 0.340151I$ $a = 1.215390 + 0.430859I$ $b = 1.97241 + 0.78995I$	$-3.61600 - 4.89193I$	0
$u = 1.306570 + 0.385321I$ $a = 0.772428 + 0.105070I$ $b = 1.58309 - 0.82825I$	$-6.95611 - 6.96468I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.306570 - 0.385321I$ $a = 0.772428 - 0.105070I$ $b = 1.58309 + 0.82825I$	$-6.95611 + 6.96468I$	0
$u = -0.060803 + 0.628747I$ $a = -0.53802 + 1.47756I$ $b = -0.127042 + 0.473478I$	$-0.44119 - 1.56470I$	$-4.17028 + 3.88456I$
$u = -0.060803 - 0.628747I$ $a = -0.53802 - 1.47756I$ $b = -0.127042 - 0.473478I$	$-0.44119 + 1.56470I$	$-4.17028 - 3.88456I$
$u = -0.922764 + 1.032820I$ $a = 0.199690 + 0.204735I$ $b = 0.403670 + 0.238476I$	$4.00754 + 3.70557I$	0
$u = -0.922764 - 1.032820I$ $a = 0.199690 - 0.204735I$ $b = 0.403670 - 0.238476I$	$4.00754 - 3.70557I$	0
$u = 0.457781 + 0.408457I$ $a = 0.56646 + 2.03842I$ $b = 0.511340 - 0.004138I$	$1.59167 + 3.79186I$	$1.89741 - 1.93857I$
$u = 0.457781 - 0.408457I$ $a = 0.56646 - 2.03842I$ $b = 0.511340 + 0.004138I$	$1.59167 - 3.79186I$	$1.89741 + 1.93857I$
$u = -1.262930 + 0.592649I$ $a = -1.262610 - 0.329157I$ $b = -2.25061 + 0.25489I$	$-5.42549 + 3.10789I$	0
$u = -1.262930 - 0.592649I$ $a = -1.262610 + 0.329157I$ $b = -2.25061 - 0.25489I$	$-5.42549 - 3.10789I$	0
$u = -1.36643 + 0.38967I$ $a = -0.765288 - 0.003995I$ $b = -1.47807 - 0.79705I$	$-11.38250 + 1.28053I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.36643 - 0.38967I$ $a = -0.765288 + 0.003995I$ $b = -1.47807 + 0.79705I$	$-11.38250 - 1.28053I$	0
$u = 1.29707 + 0.58314I$ $a = 1.350370 - 0.078787I$ $b = 2.35665 + 0.43807I$	$-9.91993 - 9.45681I$	0
$u = 1.29707 - 0.58314I$ $a = 1.350370 + 0.078787I$ $b = 2.35665 - 0.43807I$	$-9.91993 + 9.45681I$	0
$u = -1.31022 + 0.58889I$ $a = -1.322870 + 0.107133I$ $b = -2.34658 + 0.59048I$	$-5.7532 + 15.6192I$	0
$u = -1.31022 - 0.58889I$ $a = -1.322870 - 0.107133I$ $b = -2.34658 - 0.59048I$	$-5.7532 - 15.6192I$	0
$u = 1.37880 + 0.46708I$ $a = -0.888680 - 0.525147I$ $b = -1.34840 - 0.85335I$	$-1.29850 - 7.17717I$	0
$u = 1.37880 - 0.46708I$ $a = -0.888680 + 0.525147I$ $b = -1.34840 + 0.85335I$	$-1.29850 + 7.17717I$	0
$u = 1.42356 + 0.37284I$ $a = 0.707166 - 0.088229I$ $b = 1.34948 - 0.74233I$	$-7.38726 + 4.45354I$	0
$u = 1.42356 - 0.37284I$ $a = 0.707166 + 0.088229I$ $b = 1.34948 + 0.74233I$	$-7.38726 - 4.45354I$	0
$u = -0.054872 + 0.484805I$ $a = -1.31570 + 1.52600I$ $b = -0.147524 + 0.297815I$	$-0.23274 - 1.52753I$	$-1.85083 + 4.54656I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.054872 - 0.484805I$		
$a = -1.31570 - 1.52600I$	$-0.23274 + 1.52753I$	$-1.85083 - 4.54656I$
$b = -0.147524 - 0.297815I$		

$$\text{II. } I_2^u = \langle -17u^{15} - 11u^{14} + \dots + 5b + 24, -38u^{15} - 24u^{14} + \dots + 5a + 51, u^{16} - 4u^{14} + \dots - u + 1 \rangle$$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

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

$$a_{10} = \begin{pmatrix} \frac{38}{5}u^{15} + \frac{24}{5}u^{14} + \dots - \frac{41}{5}u - \frac{51}{5} \\ \frac{17}{5}u^{15} + \frac{11}{5}u^{14} + \dots - \frac{14}{5}u - \frac{24}{5} \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 3u^{15} + 2u^{14} + \dots + 2u + 1 \\ -\frac{6}{5}u^{15} - \frac{3}{5}u^{14} + \dots + \frac{17}{5}u + \frac{27}{5} \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -u^2 + 1 \\ -u^4 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} \frac{42}{5}u^{15} + \frac{31}{5}u^{14} + \dots - \frac{49}{5}u - \frac{64}{5} \\ \frac{21}{5}u^{15} + \frac{18}{5}u^{14} + \dots - \frac{22}{5}u - \frac{37}{5} \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -11.6000u^{15} - 7.80000u^{14} + \dots + 11.2000u + 15.2000 \\ -5.80000u^{15} - 4.40000u^{14} + \dots + 4.60000u + 7.60000 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -6.20000u^{15} - 4.60000u^{14} + \dots + 6.40000u + 11.4000 \\ -5.20000u^{15} - 2.60000u^{14} + \dots + 5.40000u + 6.40000 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} \frac{33}{5}u^{15} + \frac{24}{5}u^{14} + \dots - \frac{41}{5}u - \frac{51}{5} \\ \frac{12}{5}u^{15} + \frac{11}{5}u^{14} + \dots - \frac{9}{5}u - \frac{24}{5} \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} \frac{14}{5}u^{15} + \frac{2}{5}u^{14} + \dots - \frac{33}{5}u - \frac{18}{5} \\ \frac{14}{5}u^{15} + \frac{7}{5}u^{14} + \dots - \frac{28}{5}u - \frac{23}{5} \end{pmatrix}$$

(ii) Obstruction class = 1

$$\text{(iii) Cusp Shapes} = -\frac{96}{5}u^{15} - \frac{53}{5}u^{14} + 68u^{13} + \frac{301}{5}u^{12} - \frac{752}{5}u^{11} - 166u^{10} + \frac{1158}{5}u^9 + \frac{1467}{5}u^8 - \frac{1404}{5}u^7 - \frac{1716}{5}u^6 + 204u^5 + \frac{1261}{5}u^4 - \frac{501}{5}u^3 - \frac{611}{5}u^2 + \frac{57}{5}u + \frac{132}{5}$$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{16} - 8u^{15} + \dots - 11u + 1$
c_2	$u^{16} - 4u^{14} + \dots - u + 1$
c_3, c_4	$u^{16} + 2u^{15} + \dots + 8u + 1$
c_5	$u^{16} + 6u^{14} + \dots + 8u^2 + 1$
c_6	$u^{16} - 4u^{14} + \dots + u + 1$
c_7	$u^{16} - 12u^{15} + \dots - 8u + 1$
c_8	$u^{16} + 4u^{15} + \dots - 3u^2 + 1$
c_9	$u^{16} + 6u^{14} + \dots + u + 1$
c_{10}	$u^{16} + 8u^{14} + \dots + 6u^2 + 1$
c_{11}	$u^{16} - 2u^{15} + \dots - 8u + 1$
c_{12}	$u^{16} + 2u^{14} + \dots + 2u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{16} + 8y^{15} + \dots - 3y + 1$
c_2, c_6	$y^{16} - 8y^{15} + \dots - 11y + 1$
c_3, c_4, c_{11}	$y^{16} + 18y^{15} + \dots - 16y + 1$
c_5	$y^{16} + 12y^{15} + \dots + 16y + 1$
c_7	$y^{16} - 2y^{15} + \dots + 24y + 1$
c_8	$y^{16} + 6y^{15} + \dots - 6y + 1$
c_9	$y^{16} + 12y^{15} + \dots + 13y + 1$
c_{10}	$y^{16} + 16y^{15} + \dots + 12y + 1$
c_{12}	$y^{16} + 4y^{15} + \dots - 10y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.913832 + 0.235082I$ $a = 0.128344 - 0.430133I$ $b = -0.51462 + 1.51604I$	$5.04845 + 1.02692I$	$1.87205 - 8.56014I$
$u = -0.913832 - 0.235082I$ $a = 0.128344 + 0.430133I$ $b = -0.51462 - 1.51604I$	$5.04845 - 1.02692I$	$1.87205 + 8.56014I$
$u = 0.781665 + 0.507913I$ $a = -0.442004 - 0.379613I$ $b = 0.243014 + 0.419895I$	$0.13293 - 2.08915I$	$-4.96987 + 3.94005I$
$u = 0.781665 - 0.507913I$ $a = -0.442004 + 0.379613I$ $b = 0.243014 - 0.419895I$	$0.13293 + 2.08915I$	$-4.96987 - 3.94005I$
$u = 0.902595 + 0.772917I$ $a = -0.745532 + 0.878575I$ $b = -1.53315 - 0.12089I$	$8.66558 - 2.92614I$	$-9.74877 + 4.50724I$
$u = 0.902595 - 0.772917I$ $a = -0.745532 - 0.878575I$ $b = -1.53315 + 0.12089I$	$8.66558 + 2.92614I$	$-9.74877 - 4.50724I$
$u = -1.141260 + 0.432326I$ $a = 1.52602 - 0.04764I$ $b = 2.22115 - 0.46874I$	$-2.53602 + 3.59932I$	$-3.71675 - 3.64277I$
$u = -1.141260 - 0.432326I$ $a = 1.52602 + 0.04764I$ $b = 2.22115 + 0.46874I$	$-2.53602 - 3.59932I$	$-3.71675 + 3.64277I$
$u = 1.209890 + 0.340073I$ $a = -1.17802 - 0.80444I$ $b = -1.80436 - 0.95523I$	$-2.27641 - 6.22692I$	$-5.11471 + 7.16731I$
$u = 1.209890 - 0.340073I$ $a = -1.17802 + 0.80444I$ $b = -1.80436 + 0.95523I$	$-2.27641 + 6.22692I$	$-5.11471 - 7.16731I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.582099 + 0.425674I$		
$a = 0.46849 + 2.09936I$	$-0.501722 + 0.021541I$	$-2.41993 - 1.23227I$
$b = 0.821727 + 0.776197I$		
$u = -0.582099 - 0.425674I$		
$a = 0.46849 - 2.09936I$	$-0.501722 - 0.021541I$	$-2.41993 + 1.23227I$
$b = 0.821727 - 0.776197I$		
$u = 0.621496 + 0.095944I$		
$a = -0.02677 + 2.57216I$	$0.32457 + 4.21515I$	$-3.24854 - 6.32973I$
$b = 0.61711 + 1.29946I$		
$u = 0.621496 - 0.095944I$		
$a = -0.02677 - 2.57216I$	$0.32457 - 4.21515I$	$-3.24854 + 6.32973I$
$b = 0.61711 - 1.29946I$		
$u = -0.878460 + 1.058430I$		
$a = 0.269474 - 0.056700I$	$4.30209 + 3.76450I$	$13.3465 - 7.4442I$
$b = -0.0508752 + 0.0987483I$		
$u = -0.878460 - 1.058430I$		
$a = 0.269474 + 0.056700I$	$4.30209 - 3.76450I$	$13.3465 + 7.4442I$
$b = -0.0508752 - 0.0987483I$		

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{16} - 8u^{15} + \dots - 11u + 1)(u^{61} + 37u^{60} + \dots + 3014u + 529)$
c_2	$(u^{16} - 4u^{14} + \dots - u + 1)(u^{61} - u^{60} + \dots - 22u + 23)$
c_3, c_4	$(u^{16} + 2u^{15} + \dots + 8u + 1)(u^{61} - 3u^{60} + \dots - u + 1)$
c_5	$(u^{16} + 6u^{14} + \dots + 8u^2 + 1)(u^{61} + 5u^{60} + \dots + 128u + 56)$
c_6	$(u^{16} - 4u^{14} + \dots + u + 1)(u^{61} - u^{60} + \dots - 22u + 23)$
c_7	$(u^{16} - 12u^{15} + \dots - 8u + 1)(u^{61} + u^{60} + \dots + 4795u - 1559)$
c_8	$(u^{16} + 4u^{15} + \dots - 3u^2 + 1)(u^{61} + 3u^{60} + \dots + 1189u - 103)$
c_9	$(u^{16} + 6u^{14} + \dots + u + 1)(u^{61} - u^{60} + \dots - 4288u + 1856)$
c_{10}	$(u^{16} + 8u^{14} + \dots + 6u^2 + 1)(u^{61} + u^{60} + \dots - 19u + 1)$
c_{11}	$(u^{16} - 2u^{15} + \dots - 8u + 1)(u^{61} - 3u^{60} + \dots - u + 1)$
c_{12}	$(u^{16} + 2u^{14} + \dots + 2u + 1)(u^{61} - u^{60} + \dots - 120835u + 26113)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{16} + 8y^{15} + \dots - 3y + 1)(y^{61} - 17y^{60} + \dots + 1.05728 \times 10^7 y - 279841)$
c_2, c_6	$(y^{16} - 8y^{15} + \dots - 11y + 1)(y^{61} - 37y^{60} + \dots + 3014y - 529)$
c_3, c_4, c_{11}	$(y^{16} + 18y^{15} + \dots - 16y + 1)(y^{61} + 45y^{60} + \dots - 61y - 1)$
c_5	$(y^{16} + 12y^{15} + \dots + 16y + 1)(y^{61} + 47y^{60} + \dots - 214112y - 3136)$
c_7	$(y^{16} - 2y^{15} + \dots + 24y + 1)$ $\cdot (y^{61} - 31y^{60} + \dots + 107411875y - 2430481)$
c_8	$(y^{16} + 6y^{15} + \dots - 6y + 1)(y^{61} + 49y^{60} + \dots + 350761y - 10609)$
c_9	$(y^{16} + 12y^{15} + \dots + 13y + 1)$ $\cdot (y^{61} + 51y^{60} + \dots - 57040896y - 3444736)$
c_{10}	$(y^{16} + 16y^{15} + \dots + 12y + 1)(y^{61} + 15y^{60} + \dots + 51y - 1)$
c_{12}	$(y^{16} + 4y^{15} + \dots - 10y + 1)$ $\cdot (y^{61} + 55y^{60} + \dots + 971678005y - 681888769)$