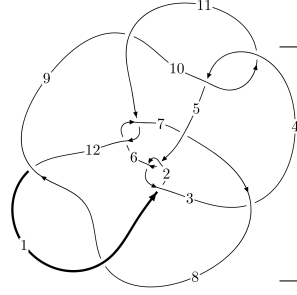
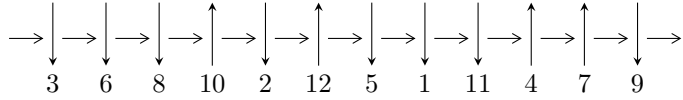


12a₀₂₉₆ (K12a₀₂₉₆)



A knot diagram¹

Linearized knot diagram



Solving Sequence

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

Ideals for irreducible components² of X_{par}

$$I_1^u = \langle 5.66805 \times 10^{409} u^{150} + 7.51787 \times 10^{409} u^{149} + \dots + 5.35159 \times 10^{409} b + 1.77240 \times 10^{412}, \\ 3.44011 \times 10^{410} u^{150} + 6.49333 \times 10^{411} u^{149} + \dots + 8.37524 \times 10^{411} a + 1.88098 \times 10^{414}, \\ u^{151} + u^{150} + \dots + 342u + 313 \rangle$$

$$I_2^u = \langle -258384u^{35} - 345517u^{34} + \dots + 229205b + 43500, \\ -1983831u^{35} - 980862u^{34} + \dots + 229205a + 169836, u^{36} + 11u^{34} + \dots - 2u + 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 187 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.

$$\mathbf{I. } I_1^u = \langle 5.67 \times 10^{409} u^{150} + 7.52 \times 10^{409} u^{149} + \dots + 5.35 \times 10^{409} b + 1.77 \times 10^{412}, 3.44 \times 10^{410} u^{150} + 6.49 \times 10^{411} u^{149} + \dots + 8.38 \times 10^{411} a + 1.88 \times 10^{414}, u^{151} + u^{150} + \dots + 342u + 313 \rangle$$

(i) Arc colorings

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

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

$$a_5 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.0410748u^{150} - 0.775301u^{149} + \dots - 172.627u - 224.588 \\ -1.05913u^{150} - 1.40479u^{149} + \dots - 523.215u - 331.192 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.682596u^{150} + 0.0126601u^{149} + \dots + 86.6262u - 123.209 \\ -0.600054u^{150} - 1.12759u^{149} + \dots - 274.719u - 311.069 \end{pmatrix}$$

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

$$a_{12} = \begin{pmatrix} 1.15095u^{150} + 2.01915u^{149} + \dots + 397.900u + 529.928 \\ 1.33205u^{150} + 0.776008u^{149} + \dots + 461.621u + 106.637 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -1.25934u^{150} - 2.29137u^{149} + \dots - 702.103u - 832.025 \\ -1.59595u^{150} - 0.488422u^{149} + \dots - 622.825u - 281.236 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -3.08072u^{150} - 0.428415u^{149} + \dots - 1135.73u + 47.9606 \\ 0.461189u^{150} + 2.50390u^{149} + \dots + 125.479u + 745.681 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.685011u^{150} - 2.74856u^{149} + \dots - 331.641u - 1006.45 \\ -2.28481u^{150} - 1.01482u^{149} + \dots - 661.078u - 346.871 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} u^3 \\ u^3 + u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 1.36356u^{150} + 2.27678u^{149} + \dots + 499.452u + 599.666 \\ 1.46366u^{150} + 0.729837u^{149} + \dots + 487.027u + 58.9669 \end{pmatrix}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes = $-2.91848u^{150} + 2.19523u^{149} + \dots - 604.970u + 711.664$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{151} + 67u^{150} + \dots + 52840u + 1156$
c_2, c_5	$u^{151} + 3u^{150} + \dots + 70u + 34$
c_3	$u^{151} + u^{150} + \dots - 179023038u + 197503417$
c_4, c_{10}	$u^{151} + u^{150} + \dots + 342u + 313$
c_6, c_{11}	$u^{151} - 2u^{150} + \dots + 21021u + 2741$
c_7	$u^{151} - 3u^{150} + \dots - 33752u + 4808$
c_8, c_{12}	$u^{151} - 4u^{150} + \dots + 20182265u - 3589991$
c_9	$u^{151} + 69u^{150} + \dots - 1865578u - 97969$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{151} + 53y^{150} + \dots + 332733400y - 1336336$
c_2, c_5	$y^{151} - 67y^{150} + \dots + 52840y - 1156$
c_3	$y^{151} + 49y^{150} + \dots - 1753792917130715680y - 39007599726675889$
c_4, c_{10}	$y^{151} + 69y^{150} + \dots - 1865578y - 97969$
c_6, c_{11}	$y^{151} + 88y^{150} + \dots - 10437379y - 7513081$
c_7	$y^{151} + 5y^{150} + \dots - 2044025440y - 23116864$
c_8, c_{12}	$y^{151} + 112y^{150} + \dots + 15695522090649y - 12888035380081$
c_9	$y^{151} + 45y^{150} + \dots + 55326840498y - 9597924961$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.474471 + 0.873042I$ $a = 0.512707 + 0.384642I$ $b = -0.771309 - 0.474519I$	$-0.82739 + 1.93508I$	0
$u = 0.474471 - 0.873042I$ $a = 0.512707 - 0.384642I$ $b = -0.771309 + 0.474519I$	$-0.82739 - 1.93508I$	0
$u = -0.793266 + 0.594543I$ $a = 0.251952 - 0.851259I$ $b = 1.40537 - 0.59930I$	$7.82453 + 1.40406I$	0
$u = -0.793266 - 0.594543I$ $a = 0.251952 + 0.851259I$ $b = 1.40537 + 0.59930I$	$7.82453 - 1.40406I$	0
$u = -0.451572 + 0.903425I$ $a = -0.621995 - 0.489425I$ $b = 1.06047 - 1.11575I$	$-4.24254 - 5.82195I$	0
$u = -0.451572 - 0.903425I$ $a = -0.621995 + 0.489425I$ $b = 1.06047 + 1.11575I$	$-4.24254 + 5.82195I$	0
$u = 0.927233 + 0.342795I$ $a = -0.334731 - 1.190830I$ $b = -0.553144 - 0.137294I$	$6.16809 - 2.14866I$	0
$u = 0.927233 - 0.342795I$ $a = -0.334731 + 1.190830I$ $b = -0.553144 + 0.137294I$	$6.16809 + 2.14866I$	0
$u = 0.737063 + 0.707878I$ $a = -0.610291 - 0.635214I$ $b = -1.312400 - 0.070924I$	$1.72737 + 0.02413I$	0
$u = 0.737063 - 0.707878I$ $a = -0.610291 + 0.635214I$ $b = -1.312400 + 0.070924I$	$1.72737 - 0.02413I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.316666 + 0.978460I$ $a = -0.191521 + 0.203636I$ $b = -1.116310 + 0.715770I$	$-3.26500 + 0.51006I$	0
$u = -0.316666 - 0.978460I$ $a = -0.191521 - 0.203636I$ $b = -1.116310 - 0.715770I$	$-3.26500 - 0.51006I$	0
$u = -0.442710 + 0.864175I$ $a = -1.295650 + 0.450112I$ $b = 0.123810 - 0.822726I$	$-4.09724 + 2.16696I$	0
$u = -0.442710 - 0.864175I$ $a = -1.295650 - 0.450112I$ $b = 0.123810 + 0.822726I$	$-4.09724 - 2.16696I$	0
$u = 0.508828 + 0.906414I$ $a = -0.10915 + 1.66142I$ $b = 1.02960 + 1.70785I$	$-0.49711 + 2.42487I$	0
$u = 0.508828 - 0.906414I$ $a = -0.10915 - 1.66142I$ $b = 1.02960 - 1.70785I$	$-0.49711 - 2.42487I$	0
$u = 0.548119 + 0.785240I$ $a = 0.92797 + 2.12640I$ $b = 0.365678 + 1.130790I$	$3.67115 + 1.16083I$	0
$u = 0.548119 - 0.785240I$ $a = 0.92797 - 2.12640I$ $b = 0.365678 - 1.130790I$	$3.67115 - 1.16083I$	0
$u = 0.781119 + 0.549041I$ $a = 1.69037 + 0.84542I$ $b = 1.356120 - 0.381605I$	$-1.19409 - 6.92765I$	0
$u = 0.781119 - 0.549041I$ $a = 1.69037 - 0.84542I$ $b = 1.356120 + 0.381605I$	$-1.19409 + 6.92765I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.761065 + 0.569162I$ $a = -0.289601 - 0.949167I$ $b = -1.58043 - 0.59088I$	$6.17789 - 7.03600I$	0
$u = 0.761065 - 0.569162I$ $a = -0.289601 + 0.949167I$ $b = -1.58043 + 0.59088I$	$6.17789 + 7.03600I$	0
$u = -0.571975 + 0.758368I$ $a = -1.28541 + 2.15458I$ $b = -0.826032 + 1.091150I$	$3.38255 + 4.28918I$	0
$u = -0.571975 - 0.758368I$ $a = -1.28541 - 2.15458I$ $b = -0.826032 - 1.091150I$	$3.38255 - 4.28918I$	0
$u = 0.953584 + 0.452558I$ $a = -0.957086 - 0.978019I$ $b = -1.067800 + 0.298408I$	$5.61640 - 7.63906I$	0
$u = 0.953584 - 0.452558I$ $a = -0.957086 + 0.978019I$ $b = -1.067800 - 0.298408I$	$5.61640 + 7.63906I$	0
$u = -0.951985 + 0.463196I$ $a = 1.07721 - 0.92464I$ $b = 1.169770 + 0.411050I$	$3.6440 + 13.6826I$	0
$u = -0.951985 - 0.463196I$ $a = 1.07721 + 0.92464I$ $b = 1.169770 - 0.411050I$	$3.6440 - 13.6826I$	0
$u = 0.551144 + 0.909541I$ $a = -1.45083 - 0.15962I$ $b = -2.44526 - 0.45996I$	$3.26755 + 3.25793I$	0
$u = 0.551144 - 0.909541I$ $a = -1.45083 + 0.15962I$ $b = -2.44526 + 0.45996I$	$3.26755 - 3.25793I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.412814 + 0.980119I$		
$a = 0.653326 - 1.178330I$	$-3.62042 - 2.96152I$	0
$b = 0.432077 - 0.717779I$		
$u = -0.412814 - 0.980119I$		
$a = 0.653326 + 1.178330I$	$-3.62042 + 2.96152I$	0
$b = 0.432077 + 0.717779I$		
$u = 0.831039 + 0.420934I$		
$a = 1.153850 + 0.607253I$	$-3.67787 - 0.37702I$	0
$b = 0.829307 - 0.438555I$		
$u = 0.831039 - 0.420934I$		
$a = 1.153850 - 0.607253I$	$-3.67787 + 0.37702I$	0
$b = 0.829307 + 0.438555I$		
$u = 0.402512 + 0.838213I$		
$a = 0.85062 + 2.08316I$	$2.26665 + 1.02679I$	0
$b = 1.55326 + 2.26765I$		
$u = 0.402512 - 0.838213I$		
$a = 0.85062 - 2.08316I$	$2.26665 - 1.02679I$	0
$b = 1.55326 - 2.26765I$		
$u = 0.458187 + 0.807509I$		
$a = -0.967115 - 0.624888I$	$-0.10234 + 1.58460I$	0
$b = -0.775263 + 0.177040I$		
$u = 0.458187 - 0.807509I$		
$a = -0.967115 + 0.624888I$	$-0.10234 - 1.58460I$	0
$b = -0.775263 - 0.177040I$		
$u = -0.384329 + 0.838899I$		
$a = -1.39369 + 1.82790I$	$1.59989 + 4.49351I$	0
$b = -2.05745 + 2.10913I$		
$u = -0.384329 - 0.838899I$		
$a = -1.39369 - 1.82790I$	$1.59989 - 4.49351I$	0
$b = -2.05745 - 2.10913I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.566433 + 0.922762I$ $a = 1.62558 - 0.65144I$ $b = 2.62581 - 0.85823I$	$2.86219 - 8.83845I$	0
$u = -0.566433 - 0.922762I$ $a = 1.62558 + 0.65144I$ $b = 2.62581 + 0.85823I$	$2.86219 + 8.83845I$	0
$u = -0.544668 + 0.937082I$ $a = 0.33045 + 1.82215I$ $b = -1.08632 + 1.82631I$	$-3.25683 - 6.59898I$	0
$u = -0.544668 - 0.937082I$ $a = 0.33045 - 1.82215I$ $b = -1.08632 - 1.82631I$	$-3.25683 + 6.59898I$	0
$u = -0.132446 + 0.902974I$ $a = 0.296562 - 0.717533I$ $b = 0.1049760 + 0.0824951I$	$-1.63554 + 1.89252I$	0
$u = -0.132446 - 0.902974I$ $a = 0.296562 + 0.717533I$ $b = 0.1049760 - 0.0824951I$	$-1.63554 - 1.89252I$	0
$u = 0.048921 + 1.087830I$ $a = -0.119600 - 0.697417I$ $b = 1.100040 - 0.368295I$	$-6.66386 - 5.59825I$	0
$u = 0.048921 - 1.087830I$ $a = -0.119600 + 0.697417I$ $b = 1.100040 + 0.368295I$	$-6.66386 + 5.59825I$	0
$u = -0.140258 + 1.087210I$ $a = -0.038523 - 0.522724I$ $b = -1.089290 - 0.170182I$	$-4.45497 + 0.69112I$	0
$u = -0.140258 - 1.087210I$ $a = -0.038523 + 0.522724I$ $b = -1.089290 + 0.170182I$	$-4.45497 - 0.69112I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.464927 + 0.994656I$ $a = 0.414265 + 1.179120I$ $b = -0.78846 + 1.57115I$	$-3.76961 + 0.60957I$	0
$u = -0.464927 - 0.994656I$ $a = 0.414265 - 1.179120I$ $b = -0.78846 - 1.57115I$	$-3.76961 - 0.60957I$	0
$u = -0.855550 + 0.282549I$ $a = 0.010641 - 1.344350I$ $b = 0.302029 - 0.352092I$	$4.70492 - 4.13948I$	0
$u = -0.855550 - 0.282549I$ $a = 0.010641 + 1.344350I$ $b = 0.302029 + 0.352092I$	$4.70492 + 4.13948I$	0
$u = -1.009090 + 0.452748I$ $a = 0.704419 - 0.716320I$ $b = 0.695608 + 0.427520I$	$-1.37475 + 4.86053I$	0
$u = -1.009090 - 0.452748I$ $a = 0.704419 + 0.716320I$ $b = 0.695608 - 0.427520I$	$-1.37475 - 4.86053I$	0
$u = 0.541010 + 0.967238I$ $a = -1.31671 - 1.02937I$ $b = -1.45108 - 0.36757I$	$1.30964 + 2.64836I$	0
$u = 0.541010 - 0.967238I$ $a = -1.31671 + 1.02937I$ $b = -1.45108 + 0.36757I$	$1.30964 - 2.64836I$	0
$u = -0.705283 + 0.540449I$ $a = -1.53800 + 1.15103I$ $b = -1.259660 - 0.094042I$	$0.26107 + 2.23697I$	0
$u = -0.705283 - 0.540449I$ $a = -1.53800 - 1.15103I$ $b = -1.259660 + 0.094042I$	$0.26107 - 2.23697I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.051334 + 0.879866I$ $a = 1.51050 + 1.61183I$ $b = 1.199650 + 0.493145I$	$1.03386 - 6.56772I$	0
$u = 0.051334 - 0.879866I$ $a = 1.51050 - 1.61183I$ $b = 1.199650 - 0.493145I$	$1.03386 + 6.56772I$	0
$u = 0.745115 + 0.841343I$ $a = -0.50967 + 1.49279I$ $b = 0.22601 + 1.53204I$	$4.33844 + 0.03761I$	0
$u = 0.745115 - 0.841343I$ $a = -0.50967 - 1.49279I$ $b = 0.22601 - 1.53204I$	$4.33844 - 0.03761I$	0
$u = -0.584720 + 0.647508I$ $a = 1.215620 - 0.312693I$ $b = 0.738515 + 0.912718I$	$-2.45409 + 2.12119I$	0
$u = -0.584720 - 0.647508I$ $a = 1.215620 + 0.312693I$ $b = 0.738515 - 0.912718I$	$-2.45409 - 2.12119I$	0
$u = -0.296135 + 1.090290I$ $a = 0.774456 - 0.407724I$ $b = -0.031499 + 0.435412I$	$-2.54988 - 2.02656I$	0
$u = -0.296135 - 1.090290I$ $a = 0.774456 + 0.407724I$ $b = -0.031499 - 0.435412I$	$-2.54988 + 2.02656I$	0
$u = 0.468149 + 1.029350I$ $a = -0.27702 - 1.53152I$ $b = -1.67840 - 1.39047I$	$-3.15209 + 4.37410I$	0
$u = 0.468149 - 1.029350I$ $a = -0.27702 + 1.53152I$ $b = -1.67840 + 1.39047I$	$-3.15209 - 4.37410I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.386899 + 1.077930I$ $a = -0.809350 + 0.434803I$ $b = 0.298507 + 1.117330I$	$-3.58088 + 2.37182I$	0
$u = 0.386899 - 1.077930I$ $a = -0.809350 - 0.434803I$ $b = 0.298507 - 1.117330I$	$-3.58088 - 2.37182I$	0
$u = -0.928204 + 0.675924I$ $a = -0.012265 - 0.446483I$ $b = 0.717089 - 0.590293I$	$6.96765 - 2.40079I$	0
$u = -0.928204 - 0.675924I$ $a = -0.012265 + 0.446483I$ $b = 0.717089 + 0.590293I$	$6.96765 + 2.40079I$	0
$u = -0.528979 + 1.025560I$ $a = 1.32538 - 1.25511I$ $b = 1.62615 - 0.72192I$	$0.57294 - 7.71347I$	0
$u = -0.528979 - 1.025560I$ $a = 1.32538 + 1.25511I$ $b = 1.62615 + 0.72192I$	$0.57294 + 7.71347I$	0
$u = -0.775368 + 0.857355I$ $a = 0.85589 + 1.35151I$ $b = 0.20072 + 1.59593I$	$4.69840 - 4.53340I$	0
$u = -0.775368 - 0.857355I$ $a = 0.85589 - 1.35151I$ $b = 0.20072 - 1.59593I$	$4.69840 + 4.53340I$	0
$u = 0.325310 + 1.109990I$ $a = -0.973193 - 0.167198I$ $b = -0.020866 + 0.696139I$	$-2.90231 - 2.15076I$	0
$u = 0.325310 - 1.109990I$ $a = -0.973193 + 0.167198I$ $b = -0.020866 - 0.696139I$	$-2.90231 + 2.15076I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.646470 + 0.972678I$		
$a = 0.58034 + 1.48762I$	$0.89294 + 5.25681I$	0
$b = 1.22462 + 0.71265I$		
$u = 0.646470 - 0.972678I$		
$a = 0.58034 - 1.48762I$	$0.89294 - 5.25681I$	0
$b = 1.22462 - 0.71265I$		
$u = 0.760011 + 0.890975I$		
$a = -1.35356 + 0.43862I$	$4.20823 + 5.66146I$	0
$b = -1.13150 + 1.02720I$		
$u = 0.760011 - 0.890975I$		
$a = -1.35356 - 0.43862I$	$4.20823 - 5.66146I$	0
$b = -1.13150 - 1.02720I$		
$u = -0.556115 + 1.039740I$		
$a = 0.73428 - 1.53215I$	$-1.54558 - 6.69820I$	0
$b = 1.80185 - 1.49525I$		
$u = -0.556115 - 1.039740I$		
$a = 0.73428 + 1.53215I$	$-1.54558 + 6.69820I$	0
$b = 1.80185 + 1.49525I$		
$u = -0.778236 + 0.887472I$		
$a = 1.31208 + 0.83308I$	$4.61518 - 1.30915I$	0
$b = 0.90434 + 1.35260I$		
$u = -0.778236 - 0.887472I$		
$a = 1.31208 - 0.83308I$	$4.61518 + 1.30915I$	0
$b = 0.90434 - 1.35260I$		
$u = 0.296578 + 0.763696I$		
$a = 1.55547 + 1.60460I$	$-1.82920 - 1.04776I$	0
$b = 0.913791 + 0.108180I$		
$u = 0.296578 - 0.763696I$		
$a = 1.55547 - 1.60460I$	$-1.82920 + 1.04776I$	0
$b = 0.913791 - 0.108180I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.431127 + 1.100710I$		
$a = 1.33543 - 0.85526I$	$0.68491 - 7.54241I$	0
$b = 1.63607 - 0.86363I$		
$u = -0.431127 - 1.100710I$		
$a = 1.33543 + 0.85526I$	$0.68491 + 7.54241I$	0
$b = 1.63607 + 0.86363I$		
$u = 0.063084 + 0.808782I$		
$a = -1.59362 + 1.56116I$	$2.05138 + 1.42523I$	0
$b = -1.118110 + 0.724853I$		
$u = 0.063084 - 0.808782I$		
$a = -1.59362 - 1.56116I$	$2.05138 - 1.42523I$	0
$b = -1.118110 - 0.724853I$		
$u = 1.012030 + 0.632806I$		
$a = 0.263018 - 0.371350I$	$4.56359 + 8.17825I$	0
$b = -0.429591 - 0.761199I$		
$u = 1.012030 - 0.632806I$		
$a = 0.263018 + 0.371350I$	$4.56359 - 8.17825I$	0
$b = -0.429591 + 0.761199I$		
$u = 0.492653 + 1.092460I$		
$a = -0.55359 - 1.92281I$	$-1.83873 + 9.56208I$	0
$b = -1.80725 - 1.50696I$		
$u = 0.492653 - 1.092460I$		
$a = -0.55359 + 1.92281I$	$-1.83873 - 9.56208I$	0
$b = -1.80725 + 1.50696I$		
$u = -0.516744 + 1.091770I$		
$a = 0.76071 - 1.84542I$	$-1.13845 - 5.26178I$	0
$b = 1.85800 - 1.42345I$		
$u = -0.516744 - 1.091770I$		
$a = 0.76071 + 1.84542I$	$-1.13845 + 5.26178I$	0
$b = 1.85800 + 1.42345I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.639338 + 1.041040I$	$4.75823 + 12.35290I$	0
$a = 1.18451 + 1.31208I$		
$b = 1.53270 + 0.19262I$		
$u = 0.639338 - 1.041040I$	$4.75823 - 12.35290I$	0
$a = 1.18451 - 1.31208I$		
$b = 1.53270 - 0.19262I$		
$u = -0.626222 + 1.052010I$	$-1.25526 - 7.39642I$	0
$a = 0.64241 - 1.82064I$		
$b = 1.66123 - 1.91892I$		
$u = -0.626222 - 1.052010I$	$-1.25526 + 7.39642I$	0
$a = 0.64241 + 1.82064I$		
$b = 1.66123 + 1.91892I$		
$u = -0.661607 + 1.035990I$	$6.48776 - 6.88133I$	0
$a = -1.04546 + 1.14662I$		
$b = -1.337950 + 0.157150I$		
$u = -0.661607 - 1.035990I$	$6.48776 + 6.88133I$	0
$a = -1.04546 - 1.14662I$		
$b = -1.337950 - 0.157150I$		
$u = -0.586759 + 0.484276I$	$0.05947 + 2.10566I$	0
$a = -1.22401 + 1.43594I$		
$b = -1.018950 + 0.062747I$		
$u = -0.586759 - 0.484276I$	$0.05947 - 2.10566I$	0
$a = -1.22401 - 1.43594I$		
$b = -1.018950 - 0.062747I$		
$u = 0.111647 + 1.234800I$	$-9.23438 + 2.25066I$	0
$a = -0.130699 - 0.270610I$		
$b = 0.886147 - 0.189061I$		
$u = 0.111647 - 1.234800I$	$-9.23438 - 2.25066I$	0
$a = -0.130699 + 0.270610I$		
$b = 0.886147 + 0.189061I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.569143 + 0.502959I$	$2.58773 + 1.73135I$	0
$a = 0.11282 + 1.42991I$		
$b = 0.851864 + 0.957838I$		
$u = 0.569143 - 0.502959I$	$2.58773 - 1.73135I$	0
$a = 0.11282 - 1.42991I$		
$b = 0.851864 - 0.957838I$		
$u = 0.653521 + 1.062710I$	$-2.73128 + 12.36150I$	0
$a = -0.46809 - 1.97020I$		
$b = -1.50458 - 2.12568I$		
$u = 0.653521 - 1.062710I$	$-2.73128 - 12.36150I$	0
$a = -0.46809 + 1.97020I$		
$b = -1.50458 + 2.12568I$		
$u = -0.618743 + 0.426002I$	$2.31255 + 3.21226I$	0
$a = -0.37059 + 1.37733I$		
$b = -1.073210 + 0.665006I$		
$u = -0.618743 - 0.426002I$	$2.31255 - 3.21226I$	0
$a = -0.37059 - 1.37733I$		
$b = -1.073210 - 0.665006I$		
$u = 0.371040 + 1.208050I$	$1.20659 + 1.56713I$	0
$a = -0.952201 - 0.292784I$		
$b = -1.35102 - 0.51279I$		
$u = 0.371040 - 1.208050I$	$1.20659 - 1.56713I$	0
$a = -0.952201 + 0.292784I$		
$b = -1.35102 + 0.51279I$		
$u = -0.764599 + 1.007190I$	$5.95422 - 3.76916I$	0
$a = -0.438580 + 0.583610I$		
$b = -0.503982 + 0.067186I$		
$u = -0.764599 - 1.007190I$	$5.95422 + 3.76916I$	0
$a = -0.438580 - 0.583610I$		
$b = -0.503982 - 0.067186I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.628353 + 1.119320I$ $a = -0.28989 - 1.52139I$ $b = -1.16322 - 1.70832I$	$-5.75637 + 5.81934I$	0
$u = 0.628353 - 1.119320I$ $a = -0.28989 + 1.52139I$ $b = -1.16322 + 1.70832I$	$-5.75637 - 5.81934I$	0
$u = -0.588374 + 0.357615I$ $a = 1.137030 - 0.352905I$ $b = 0.147481 + 1.082150I$	$-1.97680 - 4.61514I$	$-4.00000 + 6.35336I$
$u = -0.588374 - 0.357615I$ $a = 1.137030 + 0.352905I$ $b = 0.147481 - 1.082150I$	$-1.97680 + 4.61514I$	$-4.00000 - 6.35336I$
$u = -0.018154 + 1.328590I$ $a = -0.117418 + 0.353788I$ $b = 0.783836 - 0.004095I$	$-3.03686 + 10.80110I$	0
$u = -0.018154 - 1.328590I$ $a = -0.117418 - 0.353788I$ $b = 0.783836 + 0.004095I$	$-3.03686 - 10.80110I$	0
$u = -0.625854 + 0.229578I$ $a = -0.47385 + 1.36844I$ $b = -1.195450 - 0.289604I$	$1.19416 + 0.85443I$	0
$u = -0.625854 - 0.229578I$ $a = -0.47385 - 1.36844I$ $b = -1.195450 + 0.289604I$	$1.19416 - 0.85443I$	0
$u = -0.680374 + 1.149170I$ $a = -0.61432 + 1.65134I$ $b = -1.75577 + 1.68669I$	$1.5363 - 19.6385I$	0
$u = -0.680374 - 1.149170I$ $a = -0.61432 - 1.65134I$ $b = -1.75577 - 1.68669I$	$1.5363 + 19.6385I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.678767 + 1.152150I$ $a = 0.66746 + 1.50934I$ $b = 1.75972 + 1.54970I$	$3.47276 + 13.58970I$	0
$u = 0.678767 - 1.152150I$ $a = 0.66746 - 1.50934I$ $b = 1.75972 - 1.54970I$	$3.47276 - 13.58970I$	0
$u = -0.693753 + 1.159710I$ $a = -0.370937 + 1.254930I$ $b = -1.42287 + 1.42105I$	$-3.55570 - 10.98920I$	0
$u = -0.693753 - 1.159710I$ $a = -0.370937 - 1.254930I$ $b = -1.42287 - 1.42105I$	$-3.55570 + 10.98920I$	0
$u = 0.040414 + 1.355810I$ $a = -0.047417 + 0.309496I$ $b = -0.841750 - 0.023731I$	$-1.01958 - 4.59032I$	0
$u = 0.040414 - 1.355810I$ $a = -0.047417 - 0.309496I$ $b = -0.841750 + 0.023731I$	$-1.01958 + 4.59032I$	0
$u = 0.627417 + 0.141434I$ $a = 0.228538 + 1.261240I$ $b = 1.108220 - 0.577832I$	$0.68585 - 5.36172I$	$-2.64883 + 5.99730I$
$u = 0.627417 - 0.141434I$ $a = 0.228538 - 1.261240I$ $b = 1.108220 + 0.577832I$	$0.68585 + 5.36172I$	$-2.64883 - 5.99730I$
$u = 0.658345 + 1.192310I$ $a = 0.730811 + 0.819351I$ $b = 1.61609 + 0.90967I$	$3.62177 + 7.96268I$	0
$u = 0.658345 - 1.192310I$ $a = 0.730811 - 0.819351I$ $b = 1.61609 - 0.90967I$	$3.62177 - 7.96268I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.614117 + 1.233780I$ $a = -0.713863 + 0.414485I$ $b = -1.49594 + 0.51693I$	$1.85327 - 1.35254I$	0
$u = -0.614117 - 1.233780I$ $a = -0.713863 - 0.414485I$ $b = -1.49594 - 0.51693I$	$1.85327 + 1.35254I$	0
$u = 0.884501 + 1.099460I$ $a = 0.342347 + 0.007126I$ $b = 0.068941 - 0.422441I$	$3.20160 - 1.40503I$	0
$u = 0.884501 - 1.099460I$ $a = 0.342347 - 0.007126I$ $b = 0.068941 + 0.422441I$	$3.20160 + 1.40503I$	0
$u = 0.308745 + 0.490388I$ $a = -1.229980 + 0.363683I$ $b = -0.201002 + 0.699270I$	$0.036983 + 1.255920I$	$-0.02182 - 5.53314I$
$u = 0.308745 - 0.490388I$ $a = -1.229980 - 0.363683I$ $b = -0.201002 - 0.699270I$	$0.036983 - 1.255920I$	$-0.02182 + 5.53314I$
$u = 0.504989 + 0.118537I$ $a = -0.98059 - 1.07480I$ $b = 0.347166 + 0.828660I$	$-0.849193 + 1.116530I$	$-2.55366 + 1.85405I$
$u = 0.504989 - 0.118537I$ $a = -0.98059 + 1.07480I$ $b = 0.347166 - 0.828660I$	$-0.849193 - 1.116530I$	$-2.55366 - 1.85405I$
$u = -0.413870$ $a = -0.843592$ $b = -0.505841$	-1.38935	-6.69980
$u = -0.12305 + 1.64503I$ $a = 0.176523 + 0.010629I$ $b = 0.753377 - 0.147043I$	$-8.80325 + 0.76190I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.12305 - 1.64503I$		
$a = 0.176523 - 0.010629I$	$-8.80325 - 0.76190I$	0
$b = 0.753377 + 0.147043I$		

II.

$$I_2^u = \langle -2.58 \times 10^5 u^{35} - 3.46 \times 10^5 u^{34} + \dots + 2.29 \times 10^5 b + 4.35 \times 10^4, -1.98 \times 10^6 u^{35} - 9.81 \times 10^5 u^{34} + \dots + 2.29 \times 10^5 a + 1.70 \times 10^5, u^{36} + 11u^{34} + \dots - 2u + 1 \rangle$$

(i) Arc colorings

$$\begin{aligned} a_4 &= \begin{pmatrix} 1 \\ 0 \end{pmatrix} \\ a_{10} &= \begin{pmatrix} 0 \\ u \end{pmatrix} \\ a_5 &= \begin{pmatrix} 1 \\ -u^2 \end{pmatrix} \\ a_7 &= \begin{pmatrix} 8.65527u^{35} + 4.27941u^{34} + \dots + 10.5422u - 0.740979 \\ 1.12731u^{35} + 1.50746u^{34} + \dots + 0.681896u - 0.189786 \end{pmatrix} \\ a_8 &= \begin{pmatrix} 10.3529u^{35} + 4.46920u^{34} + \dots + 9.95675u + 3.72822 \\ u^{33} + 10u^{31} + \dots - 2u^2 + 2u \end{pmatrix} \\ a_{11} &= \begin{pmatrix} u \\ u \end{pmatrix} \\ a_{12} &= \begin{pmatrix} -11.3529u^{35} - 4.46920u^{34} + \dots + 5.04325u - 5.72822 \\ -5.69768u^{35} - 0.189786u^{34} + \dots - 3.41455u - 4.46920 \end{pmatrix} \\ a_3 &= \begin{pmatrix} -6.92471u^{35} + 4.03541u^{34} + \dots - 49.0306u + 19.5538 \\ -3u^{34} - 28u^{32} + \dots - 4u + 2 \end{pmatrix} \\ a_6 &= \begin{pmatrix} 4.29704u^{35} + 9.70978u^{34} + \dots - 18.6028u + 4.22633 \\ 7.97950u^{35} + 3.97053u^{34} + \dots - 10.8552u + 7.42282 \end{pmatrix} \\ a_2 &= \begin{pmatrix} 7.92895u^{35} + 1.84951u^{34} + \dots - 21.1825u + 18.2083 \\ 6.10546u^{35} - 3.32773u^{34} + \dots + 12.0283u - 1.63774 \end{pmatrix} \\ a_9 &= \begin{pmatrix} u^3 \\ u^3 + u \end{pmatrix} \\ a_1 &= \begin{pmatrix} -10.4334u^{35} - 3.55197u^{34} + \dots + 4.79188u - 6.21320 \\ -3.55681u^{35} + 1.21242u^{34} + \dots - 3.68186u - 2.18223 \end{pmatrix} \end{aligned}$$

(ii) Obstruction class = 1

$$(iii) \text{ Cusp Shapes} = \frac{517923}{45841}u^{35} - \frac{1069968}{229205}u^{34} + \dots + \frac{14024567}{229205}u - \frac{10697188}{229205}$$

(iv) u -Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{36} - 22u^{35} + \dots - 65u + 4$
c_2	$u^{36} + 2u^{35} + \dots + u + 2$
c_3	$u^{36} + 3u^{34} + \dots - 2u + 1$
c_4	$u^{36} + 11u^{34} + \dots - 2u + 1$
c_5	$u^{36} - 2u^{35} + \dots - u + 2$
c_6	$u^{36} - u^{35} + \dots + 3u + 1$
c_7	$u^{36} + 6u^{35} + \dots - 4u + 1$
c_8	$u^{36} - 3u^{35} + \dots + u + 1$
c_9	$u^{36} - 22u^{35} + \dots - 20u + 1$
c_{10}	$u^{36} + 11u^{34} + \dots + 2u + 1$
c_{11}	$u^{36} + u^{35} + \dots - 3u + 1$
c_{12}	$u^{36} + 3u^{35} + \dots - u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{36} + 2y^{35} + \dots + 47y + 16$
c_2, c_5	$y^{36} - 22y^{35} + \dots - 65y + 4$
c_3	$y^{36} + 6y^{35} + \dots + 22y + 1$
c_4, c_{10}	$y^{36} + 22y^{35} + \dots + 20y + 1$
c_6, c_{11}	$y^{36} + 29y^{35} + \dots + 33y + 1$
c_7	$y^{36} - 2y^{35} + \dots - 32y + 1$
c_8, c_{12}	$y^{36} + 33y^{35} + \dots + 29y + 1$
c_9	$y^{36} + 2y^{35} + \dots + 40y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.357797 + 0.955513I$		
$a = 1.289100 + 0.087295I$	$-4.94479 + 2.22932I$	$-14.9019 - 2.6399I$
$b = -0.105926 + 1.136940I$		
$u = -0.357797 - 0.955513I$		
$a = 1.289100 - 0.087295I$	$-4.94479 - 2.22932I$	$-14.9019 + 2.6399I$
$b = -0.105926 - 1.136940I$		
$u = 0.188381 + 0.952058I$		
$a = -0.577972 + 0.724453I$	$-2.03573 + 0.72975I$	$-6.02806 - 0.31753I$
$b = 0.700843 + 0.974985I$		
$u = 0.188381 - 0.952058I$		
$a = -0.577972 - 0.724453I$	$-2.03573 - 0.72975I$	$-6.02806 + 0.31753I$
$b = 0.700843 - 0.974985I$		
$u = 0.767826 + 0.730286I$		
$a = -1.235970 + 0.014515I$	$3.93271 + 6.87021I$	$-2.79527 - 7.40077I$
$b = -0.721873 + 0.277072I$		
$u = 0.767826 - 0.730286I$		
$a = -1.235970 - 0.014515I$	$3.93271 - 6.87021I$	$-2.79527 + 7.40077I$
$b = -0.721873 - 0.277072I$		
$u = -0.295149 + 0.862951I$		
$a = 1.065500 + 0.914877I$	$-4.50771 - 4.97619I$	$-9.84969 + 1.70961I$
$b = -0.75742 + 1.25923I$		
$u = -0.295149 - 0.862951I$		
$a = 1.065500 - 0.914877I$	$-4.50771 + 4.97619I$	$-9.84969 - 1.70961I$
$b = -0.75742 - 1.25923I$		
$u = 0.377195 + 1.036490I$		
$a = -0.631468 - 0.298796I$	$-3.19509 + 0.95374I$	$-9.53510 + 0.09168I$
$b = 0.218315 + 0.567981I$		
$u = 0.377195 - 1.036490I$		
$a = -0.631468 + 0.298796I$	$-3.19509 - 0.95374I$	$-9.53510 - 0.09168I$
$b = 0.218315 - 0.567981I$		

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.749055 + 0.817100I$ $a = 1.35938 + 0.64125I$ $b = 0.930567 + 0.890428I$	$5.02393 - 1.94253I$	$2.06414 + 5.24353I$
$u = -0.749055 - 0.817100I$ $a = 1.35938 - 0.64125I$ $b = 0.930567 - 0.890428I$	$5.02393 + 1.94253I$	$2.06414 - 5.24353I$
$u = -0.715639 + 0.497019I$ $a = -0.922146 + 0.898279I$ $b = -0.757220 - 0.546128I$	$-1.58054 + 3.16047I$	$-4.02940 - 3.51911I$
$u = -0.715639 - 0.497019I$ $a = -0.922146 - 0.898279I$ $b = -0.757220 + 0.546128I$	$-1.58054 - 3.16047I$	$-4.02940 + 3.51911I$
$u = 0.524426 + 1.037100I$ $a = -0.72236 - 1.90207I$ $b = -1.83753 - 1.57526I$	$-2.22265 + 5.46540I$	$-9.49464 - 6.03250I$
$u = 0.524426 - 1.037100I$ $a = -0.72236 + 1.90207I$ $b = -1.83753 + 1.57526I$	$-2.22265 - 5.46540I$	$-9.49464 + 6.03250I$
$u = 0.440097 + 1.083420I$ $a = -1.52366 - 0.97777I$ $b = -2.31961 - 0.85247I$	$0.54233 + 8.54078I$	$-5.21907 - 11.55552I$
$u = 0.440097 - 1.083420I$ $a = -1.52366 + 0.97777I$ $b = -2.31961 + 0.85247I$	$0.54233 - 8.54078I$	$-5.21907 + 11.55552I$
$u = -0.575344 + 1.045980I$ $a = 0.21266 - 1.64483I$ $b = 1.50297 - 1.58524I$	$-3.19361 - 8.08332I$	$-7.68802 + 9.09365I$
$u = -0.575344 - 1.045980I$ $a = 0.21266 + 1.64483I$ $b = 1.50297 + 1.58524I$	$-3.19361 + 8.08332I$	$-7.68802 - 9.09365I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.754254 + 0.927529I$ $a = 0.530498 + 1.125890I$ $b = 0.16434 + 1.42491I$	$4.68873 - 3.76190I$	$-2.59546 - 0.35238I$
$u = -0.754254 - 0.927529I$ $a = 0.530498 - 1.125890I$ $b = 0.16434 - 1.42491I$	$4.68873 + 3.76190I$	$-2.59546 + 0.35238I$
$u = -0.378109 + 1.150000I$ $a = 1.189800 - 0.265551I$ $b = 1.96649 - 0.23854I$	$0.72838 - 2.69545I$	$-5.40072 + 5.24485I$
$u = -0.378109 - 1.150000I$ $a = 1.189800 + 0.265551I$ $b = 1.96649 + 0.23854I$	$0.72838 + 2.69545I$	$-5.40072 - 5.24485I$
$u = 0.494501 + 0.571527I$ $a = 1.55897 + 1.44851I$ $b = 1.42526 - 0.01899I$	$-0.728857 - 1.198740I$	$-5.19155 + 0.06419I$
$u = 0.494501 - 0.571527I$ $a = 1.55897 - 1.44851I$ $b = 1.42526 + 0.01899I$	$-0.728857 + 1.198740I$	$-5.19155 - 0.06419I$
$u = 0.343882 + 0.665491I$ $a = 1.94755 + 2.49158I$ $b = 1.53935 + 1.56425I$	$2.13814 - 5.17372I$	$-1.23012 + 7.50734I$
$u = 0.343882 - 0.665491I$ $a = 1.94755 - 2.49158I$ $b = 1.53935 - 1.56425I$	$2.13814 + 5.17372I$	$-1.23012 - 7.50734I$
$u = -0.284559 + 0.681609I$ $a = -1.47972 + 2.66804I$ $b = -0.87260 + 1.83658I$	$2.54065 - 0.13483I$	$-2.09330 - 1.87168I$
$u = -0.284559 - 0.681609I$ $a = -1.47972 - 2.66804I$ $b = -0.87260 - 1.83658I$	$2.54065 + 0.13483I$	$-2.09330 + 1.87168I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.813586 + 1.057500I$ $a = -0.066034 + 0.598520I$ $b = 0.307723 + 0.943390I$	$2.96304 - 0.90948I$	$-4.00000 - 2.78303I$
$u = 0.813586 - 1.057500I$ $a = -0.066034 - 0.598520I$ $b = 0.307723 - 0.943390I$	$2.96304 + 0.90948I$	$-4.00000 + 2.78303I$
$u = 0.246172 + 0.390549I$ $a = -1.83342 + 0.24063I$ $b = 0.375039 + 0.277366I$	$-1.15261 + 1.97520I$	$-5.58454 - 6.81897I$
$u = 0.246172 - 0.390549I$ $a = -1.83342 - 0.24063I$ $b = 0.375039 - 0.277366I$	$-1.15261 - 1.97520I$	$-5.58454 + 6.81897I$
$u = -0.08616 + 1.61968I$ $a = -0.160698 + 0.102938I$ $b = -0.758714 + 0.229612I$	$-8.86594 + 0.61950I$	0
$u = -0.08616 - 1.61968I$ $a = -0.160698 - 0.102938I$ $b = -0.758714 - 0.229612I$	$-8.86594 - 0.61950I$	0

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{36} - 22u^{35} + \dots - 65u + 4)(u^{151} + 67u^{150} + \dots + 52840u + 1156)$
c_2	$(u^{36} + 2u^{35} + \dots + u + 2)(u^{151} + 3u^{150} + \dots + 70u + 34)$
c_3	$(u^{36} + 3u^{34} + \dots - 2u + 1)$ $\cdot (u^{151} + u^{150} + \dots - 179023038u + 197503417)$
c_4	$(u^{36} + 11u^{34} + \dots - 2u + 1)(u^{151} + u^{150} + \dots + 342u + 313)$
c_5	$(u^{36} - 2u^{35} + \dots - u + 2)(u^{151} + 3u^{150} + \dots + 70u + 34)$
c_6	$(u^{36} - u^{35} + \dots + 3u + 1)(u^{151} - 2u^{150} + \dots + 21021u + 2741)$
c_7	$(u^{36} + 6u^{35} + \dots - 4u + 1)(u^{151} - 3u^{150} + \dots - 33752u + 4808)$
c_8	$(u^{36} - 3u^{35} + \dots + u + 1)(u^{151} - 4u^{150} + \dots + 2.01823 \times 10^7 u - 3589991)$
c_9	$(u^{36} - 22u^{35} + \dots - 20u + 1)$ $\cdot (u^{151} + 69u^{150} + \dots - 1865578u - 97969)$
c_{10}	$(u^{36} + 11u^{34} + \dots + 2u + 1)(u^{151} + u^{150} + \dots + 342u + 313)$
c_{11}	$(u^{36} + u^{35} + \dots - 3u + 1)(u^{151} - 2u^{150} + \dots + 21021u + 2741)$
c_{12}	$(u^{36} + 3u^{35} + \dots - u + 1)(u^{151} - 4u^{150} + \dots + 2.01823 \times 10^7 u - 3589991)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{36} + 2y^{35} + \dots + 47y + 16)$ $\cdot (y^{151} + 53y^{150} + \dots + 332733400y - 1336336)$
c_2, c_5	$(y^{36} - 22y^{35} + \dots - 65y + 4)(y^{151} - 67y^{150} + \dots + 52840y - 1156)$
c_3	$(y^{36} + 6y^{35} + \dots + 22y + 1)$ $\cdot (y^{151} + 49y^{150} + \dots - 1753792917130715680y - 39007599726675889)$
c_4, c_{10}	$(y^{36} + 22y^{35} + \dots + 20y + 1)$ $\cdot (y^{151} + 69y^{150} + \dots - 1865578y - 97969)$
c_6, c_{11}	$(y^{36} + 29y^{35} + \dots + 33y + 1)$ $\cdot (y^{151} + 88y^{150} + \dots - 10437379y - 7513081)$
c_7	$(y^{36} - 2y^{35} + \dots - 32y + 1)$ $\cdot (y^{151} + 5y^{150} + \dots - 2044025440y - 23116864)$
c_8, c_{12}	$(y^{36} + 33y^{35} + \dots + 29y + 1)$ $\cdot (y^{151} + 112y^{150} + \dots + 15695522090649y - 12888035380081)$
c_9	$(y^{36} + 2y^{35} + \dots + 40y + 1)$ $\cdot (y^{151} + 45y^{150} + \dots + 55326840498y - 9597924961)$