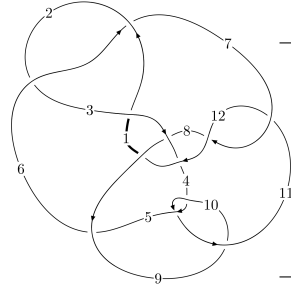
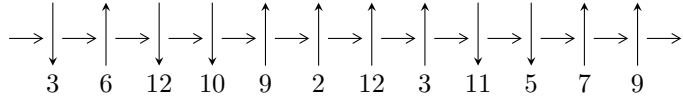


12n₀₃₉₉ (K12n₀₃₉₉)



A knot diagram¹

Linearized knot diagram



Solving Sequence

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

Ideals for irreducible components² of X_{par}

$$I_1^u = \langle -6.37109 \times 10^{80} u^{57} - 1.84051 \times 10^{81} u^{56} + \dots + 5.53954 \times 10^{81} b - 2.72456 \times 10^{81}, \\ 1.01217 \times 10^{81} u^{57} + 2.67010 \times 10^{81} u^{56} + \dots + 5.53954 \times 10^{81} a + 9.31498 \times 10^{81}, u^{58} + 2u^{57} + \dots - 27u + \\ I_2^u = \langle u^{17} + 5u^{15} + \dots + b - 4, -u^{17} - u^{16} + \dots + a + 2, u^{18} + u^{17} + \dots + u + 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 76 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.

$$\text{I. } I_1^u = \langle -6.37 \times 10^{80} u^{57} - 1.84 \times 10^{81} u^{56} + \dots + 5.54 \times 10^{81} b - 2.72 \times 10^{81}, 1.01 \times 10^{81} u^{57} + 2.67 \times 10^{81} u^{56} + \dots + 5.54 \times 10^{81} a + 9.31 \times 10^{81}, u^{58} + 2u^{57} + \dots - 27u + 19 \rangle$$

(i) Arc colorings

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

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^3 \\ u^5 + u^3 + u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.182717u^{57} - 0.482007u^{56} + \dots - 0.595250u - 1.68154 \\ 0.115011u^{57} + 0.332249u^{56} + \dots - 5.79553u + 0.491839 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.215408u^{57} + 0.599279u^{56} + \dots - 5.51146u + 2.78906 \\ 0.0682106u^{57} + 0.107706u^{56} + \dots + 9.01545u - 0.0425585 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.0965279u^{57} - 0.205612u^{56} + \dots - 0.632369u + 0.510681 \\ 0.0864318u^{57} + 0.243238u^{56} + \dots - 4.66179u + 0.707748 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.184306u^{57} - 0.235116u^{56} + \dots - 7.66825u + 2.57745 \\ -0.0327982u^{57} + 0.0595320u^{56} + \dots - 3.43943u + 4.22235 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -0.0364741u^{57} + 0.0502724u^{56} + \dots + 0.960488u + 0.303105 \\ -0.115380u^{57} - 0.144572u^{56} + \dots - 4.33270u + 3.07815 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.151508u^{57} - 0.294648u^{56} + \dots - 4.22882u - 1.64490 \\ -0.0327982u^{57} + 0.0595320u^{56} + \dots - 3.43943u + 4.22235 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.261480u^{57} - 0.760630u^{56} + \dots + 1.64155u - 3.31612 \\ 0.0235570u^{57} + 0.113579u^{56} + \dots - 7.62175u + 0.966758 \end{pmatrix}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes = $-0.0203392u^{57} - 0.188722u^{56} + \dots - 30.5602u - 6.13312$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{58} + 40u^{57} + \dots - 3009u + 361$
c_2, c_6	$u^{58} - 2u^{57} + \dots + 27u + 19$
c_3	$u^{58} - 6u^{57} + \dots + 9863u + 10043$
c_4, c_{10}	$u^{58} - u^{57} + \dots - 6u + 19$
c_5	$u^{58} + 30u^{56} + \dots - 6099u + 2888$
c_7, c_{11}	$u^{58} - 3u^{57} + \dots + 12u + 1$
c_8	$u^{58} - u^{57} + \dots + 958u + 751$
c_9	$u^{58} + 33u^{57} + \dots + 3228u + 361$
c_{12}	$u^{58} + 3u^{57} + \dots + 113424u + 119344$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{58} - 32y^{57} + \dots - 18457409y + 130321$
c_2, c_6	$y^{58} + 40y^{57} + \dots - 3009y + 361$
c_3	$y^{58} - 72y^{57} + \dots - 2262348709y + 100861849$
c_4, c_{10}	$y^{58} - 33y^{57} + \dots - 3228y + 361$
c_5	$y^{58} + 60y^{57} + \dots - 6995097y + 8340544$
c_7, c_{11}	$y^{58} - 5y^{57} + \dots - 26y + 1$
c_8	$y^{58} + 73y^{57} + \dots + 20589374y + 564001$
c_9	$y^{58} - 9y^{57} + \dots - 449164y + 130321$
c_{12}	$y^{58} + 75y^{57} + \dots - 34418530176y + 14242990336$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.224515 + 1.006340I$ $a = -0.33066 - 2.04253I$ $b = -0.249830 + 0.006141I$	$-2.43095 + 5.91497I$	$2.38973 - 6.67697I$
$u = 0.224515 - 1.006340I$ $a = -0.33066 + 2.04253I$ $b = -0.249830 - 0.006141I$	$-2.43095 - 5.91497I$	$2.38973 + 6.67697I$
$u = -0.030766 + 0.962352I$ $a = -0.06436 + 1.97929I$ $b = -0.746000 - 0.276999I$	$0.1036930 + 0.0767330I$	$2.65103 - 0.60139I$
$u = -0.030766 - 0.962352I$ $a = -0.06436 - 1.97929I$ $b = -0.746000 + 0.276999I$	$0.1036930 - 0.0767330I$	$2.65103 + 0.60139I$
$u = 1.042920 + 0.032836I$ $a = 0.259112 + 0.104770I$ $b = 0.68966 - 1.30617I$	$-5.37599 - 3.80435I$	$2.65869 + 2.19609I$
$u = 1.042920 - 0.032836I$ $a = 0.259112 - 0.104770I$ $b = 0.68966 + 1.30617I$	$-5.37599 + 3.80435I$	$2.65869 - 2.19609I$
$u = -1.058870 + 0.161540I$ $a = -0.227004 + 0.100851I$ $b = -0.095391 - 1.169420I$	$-9.58690 + 0.42947I$	$-1.63258 - 0.54397I$
$u = -1.058870 - 0.161540I$ $a = -0.227004 - 0.100851I$ $b = -0.095391 + 1.169420I$	$-9.58690 - 0.42947I$	$-1.63258 + 0.54397I$
$u = -0.460132 + 0.780804I$ $a = 1.310830 + 0.501042I$ $b = 0.519539 - 0.203889I$	$0.07479 - 1.89327I$	$0.15136 + 5.96513I$
$u = -0.460132 - 0.780804I$ $a = 1.310830 - 0.501042I$ $b = 0.519539 + 0.203889I$	$0.07479 + 1.89327I$	$0.15136 - 5.96513I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.105990 + 1.102970I$ $a = -0.810233 + 0.184658I$ $b = 1.80171 - 0.04967I$	$-6.41348 + 2.03025I$	$-3.15648 - 3.60193I$
$u = 0.105990 - 1.102970I$ $a = -0.810233 - 0.184658I$ $b = 1.80171 + 0.04967I$	$-6.41348 - 2.03025I$	$-3.15648 + 3.60193I$
$u = 0.561429 + 0.692143I$ $a = -0.524254 + 0.648250I$ $b = -1.135660 - 0.415124I$	$2.43289 + 1.05533I$	$3.94947 + 2.91901I$
$u = 0.561429 - 0.692143I$ $a = -0.524254 - 0.648250I$ $b = -1.135660 + 0.415124I$	$2.43289 - 1.05533I$	$3.94947 - 2.91901I$
$u = -0.761038 + 0.814758I$ $a = -0.300716 + 0.114866I$ $b = -0.379098 + 0.825252I$	$1.83532 - 4.45936I$	$2.00000 + 6.82517I$
$u = -0.761038 - 0.814758I$ $a = -0.300716 - 0.114866I$ $b = -0.379098 - 0.825252I$	$1.83532 + 4.45936I$	$2.00000 - 6.82517I$
$u = -0.319860 + 0.802100I$ $a = 1.121730 - 0.655570I$ $b = 0.060021 - 0.162688I$	$-0.29143 - 1.82126I$	$1.27978 + 4.93251I$
$u = -0.319860 - 0.802100I$ $a = 1.121730 + 0.655570I$ $b = 0.060021 + 0.162688I$	$-0.29143 + 1.82126I$	$1.27978 - 4.93251I$
$u = -1.172040 + 0.071525I$ $a = 0.303741 + 0.232489I$ $b = 0.85630 + 1.92853I$	$-8.63085 + 8.82241I$	$0. - 5.23324I$
$u = -1.172040 - 0.071525I$ $a = 0.303741 - 0.232489I$ $b = 0.85630 - 1.92853I$	$-8.63085 - 8.82241I$	$0. + 5.23324I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.445581 + 1.103690I$	$-4.43655 + 6.03980I$	0
$a = 0.70109 - 1.44721I$		
$b = 0.848763 + 0.587413I$		
$u = 0.445581 - 1.103690I$	$-4.43655 - 6.03980I$	0
$a = 0.70109 + 1.44721I$		
$b = 0.848763 - 0.587413I$		
$u = -0.260261 + 1.162950I$	$-2.05268 - 3.33538I$	0
$a = 0.04311 - 1.85420I$		
$b = -0.45658 + 1.34791I$		
$u = -0.260261 - 1.162950I$	$-2.05268 + 3.33538I$	0
$a = 0.04311 + 1.85420I$		
$b = -0.45658 - 1.34791I$		
$u = -0.779441 + 0.907575I$	$1.58419 - 1.34680I$	0
$a = 0.834365 - 0.262759I$		
$b = -0.075515 - 0.925892I$		
$u = -0.779441 - 0.907575I$	$1.58419 + 1.34680I$	0
$a = 0.834365 + 0.262759I$		
$b = -0.075515 + 0.925892I$		
$u = -0.058218 + 1.207240I$	$-4.57241 - 4.54424I$	0
$a = 0.39450 - 1.84866I$		
$b = -1.02773 + 1.06905I$		
$u = -0.058218 - 1.207240I$	$-4.57241 + 4.54424I$	0
$a = 0.39450 + 1.84866I$		
$b = -1.02773 - 1.06905I$		
$u = 0.094987 + 1.212170I$	$-6.32920 + 0.20167I$	0
$a = -0.79398 + 1.46987I$		
$b = 0.90589 - 1.47169I$		
$u = 0.094987 - 1.212170I$	$-6.32920 - 0.20167I$	0
$a = -0.79398 - 1.46987I$		
$b = 0.90589 + 1.47169I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.285200 + 0.724064I$		
$a = -1.77053 - 0.53984I$	$-5.14004 - 0.53773I$	$-4.31053 - 1.96229I$
$b = 0.832820 - 0.313787I$		
$u = 0.285200 - 0.724064I$		
$a = -1.77053 + 0.53984I$	$-5.14004 + 0.53773I$	$-4.31053 + 1.96229I$
$b = 0.832820 + 0.313787I$		
$u = 0.675255 + 1.080190I$		
$a = 0.729932 + 0.807985I$	$1.20589 + 3.92566I$	0
$b = -1.32166 + 0.86386I$		
$u = 0.675255 - 1.080190I$		
$a = 0.729932 - 0.807985I$	$1.20589 - 3.92566I$	0
$b = -1.32166 - 0.86386I$		
$u = 0.289778 + 1.251810I$		
$a = -0.14194 + 2.38715I$	$-4.57902 + 8.23825I$	0
$b = -0.83641 - 2.21441I$		
$u = 0.289778 - 1.251810I$		
$a = -0.14194 - 2.38715I$	$-4.57902 - 8.23825I$	0
$b = -0.83641 + 2.21441I$		
$u = 0.502231 + 0.501611I$		
$a = 1.90990 + 0.84716I$	$-1.23139 - 2.94700I$	$3.45016 + 2.06974I$
$b = 0.772295 + 0.298643I$		
$u = 0.502231 - 0.501611I$		
$a = 1.90990 - 0.84716I$	$-1.23139 + 2.94700I$	$3.45016 - 2.06974I$
$b = 0.772295 - 0.298643I$		
$u = 0.614872 + 0.246619I$		
$a = 0.986845 - 0.142152I$	$-1.98798 - 1.92106I$	$0.449585 + 0.437051I$
$b = 0.655283 - 0.683736I$		
$u = 0.614872 - 0.246619I$		
$a = 0.986845 + 0.142152I$	$-1.98798 + 1.92106I$	$0.449585 - 0.437051I$
$b = 0.655283 + 0.683736I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.49464 + 1.35074I$ $a = -0.934249 + 1.006260I$ $b = 0.33871 - 1.44275I$	$-9.72891 + 1.63245I$	0
$u = 0.49464 - 1.35074I$ $a = -0.934249 - 1.006260I$ $b = 0.33871 + 1.44275I$	$-9.72891 - 1.63245I$	0
$u = 0.53075 + 1.33985I$ $a = 0.49560 - 1.71753I$ $b = 0.97811 + 1.43333I$	$-9.45215 + 9.41732I$	0
$u = 0.53075 - 1.33985I$ $a = 0.49560 + 1.71753I$ $b = 0.97811 - 1.43333I$	$-9.45215 - 9.41732I$	0
$u = -0.42609 + 1.38517I$ $a = 0.42731 + 1.44092I$ $b = 0.22698 - 1.46052I$	$-14.5523 - 4.7341I$	0
$u = -0.42609 - 1.38517I$ $a = 0.42731 - 1.44092I$ $b = 0.22698 + 1.46052I$	$-14.5523 + 4.7341I$	0
$u = -0.60852 + 1.32238I$ $a = -0.779860 - 1.133270I$ $b = -0.463346 + 1.215890I$	$-13.1569 - 6.4397I$	0
$u = -0.60852 - 1.32238I$ $a = -0.779860 + 1.133270I$ $b = -0.463346 - 1.215890I$	$-13.1569 + 6.4397I$	0
$u = 0.07302 + 1.47166I$ $a = -1.72282 + 0.30872I$ $b = 3.24074 - 0.70291I$	$-7.81481 - 1.27231I$	0
$u = 0.07302 - 1.47166I$ $a = -1.72282 - 0.30872I$ $b = 3.24074 + 0.70291I$	$-7.81481 + 1.27231I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.58987 + 1.38053I$ $a = 0.65521 + 1.77053I$ $b = 1.32308 - 1.85496I$	$-12.7498 - 15.0579I$	0
$u = -0.58987 - 1.38053I$ $a = 0.65521 - 1.77053I$ $b = 1.32308 + 1.85496I$	$-12.7498 + 15.0579I$	0
$u = 0.457528 + 0.032139I$ $a = 0.782322 - 0.083764I$ $b = -0.563932 + 1.221260I$	$-0.84917 - 5.20541I$	$3.94046 + 7.52664I$
$u = 0.457528 - 0.032139I$ $a = 0.782322 + 0.083764I$ $b = -0.563932 - 1.221260I$	$-0.84917 + 5.20541I$	$3.94046 - 7.52664I$
$u = -0.49829 + 1.47862I$ $a = -1.10880 - 1.15312I$ $b = 0.40920 + 2.41229I$	$-13.61300 + 2.78020I$	0
$u = -0.49829 - 1.47862I$ $a = -1.10880 + 1.15312I$ $b = 0.40920 - 2.41229I$	$-13.61300 - 2.78020I$	0
$u = -0.375315 + 0.010677I$ $a = 0.974844 - 0.096938I$ $b = -0.607935 + 0.541636I$	$1.209710 - 0.655189I$	$7.50833 + 2.44087I$
$u = -0.375315 - 0.010677I$ $a = 0.974844 + 0.096938I$ $b = -0.607935 - 0.541636I$	$1.209710 + 0.655189I$	$7.50833 - 2.44087I$

II.

$$I_2^u = \langle u^{17} + 5u^{15} + \dots + b - 4, -u^{17} - u^{16} + \dots + a + 2, u^{18} + u^{17} + \dots + u + 1 \rangle$$

(i) Arc colorings

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

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^3 \\ u^5 + u^3 + u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} u^{17} + u^{16} + \dots + u - 2 \\ -u^{17} - 5u^{15} + \dots - 2u + 4 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -3u^{17} - 4u^{16} + \dots - u - 6 \\ -3u^{17} - 2u^{16} + \dots - 8u - 1 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} u^{17} + u^{16} + \dots + u - 1 \\ -u^{17} - 5u^{15} + \dots - 2u + 5 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -u^{17} - 5u^{16} + \dots - 8u - 5 \\ u^{17} + u^{16} + \dots + 7u + 1 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 4u^{17} + 11u^{16} + \dots + 20u + 12 \\ -u^{17} - u^{16} + \dots - 7u - 1 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -2u^{17} - 6u^{16} + \dots - 15u - 6 \\ u^{17} + u^{16} + \dots + 7u + 1 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 2u^{17} + 3u^{16} + \dots - 5u + 5 \\ 3u^{17} + 2u^{16} + \dots + 8u + 2 \end{pmatrix}$$

(ii) Obstruction class = 1

(iii) Cusp Shapes = $18u^{17} + 20u^{16} + 102u^{15} + 96u^{14} + 289u^{13} + 242u^{12} + 565u^{11} + 422u^{10} + 770u^9 + 505u^8 + 760u^7 + 449u^6 + 540u^5 + 268u^4 + 235u^3 + 107u^2 + 48u + 17$

(iv) u -Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{18} - 11u^{17} + \dots - 15u + 1$
c_2	$u^{18} - u^{17} + \dots - u + 1$
c_3	$u^{18} + 7u^{17} + \dots + 7u + 1$
c_4	$u^{18} - 5u^{16} + \dots - 4u^2 + 1$
c_5	$u^{18} + 3u^{17} + \dots - 2u^2 + 1$
c_6	$u^{18} + u^{17} + \dots + u + 1$
c_7	$u^{18} - 2u^{17} + \dots - 2u + 1$
c_8	$u^{18} + 10u^{16} + \dots + 9u^2 + 1$
c_9	$u^{18} - 10u^{17} + \dots - 8u + 1$
c_{10}	$u^{18} - 5u^{16} + \dots - 4u^2 + 1$
c_{11}	$u^{18} + 2u^{17} + \dots + 2u + 1$
c_{12}	$u^{18} + 2u^{17} + \dots + 2u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{18} + 3y^{17} + \dots - 21y + 1$
c_2, c_6	$y^{18} + 11y^{17} + \dots + 15y + 1$
c_3	$y^{18} - y^{17} + \dots + 7y + 1$
c_4, c_{10}	$y^{18} - 10y^{17} + \dots - 8y + 1$
c_5	$y^{18} + 15y^{17} + \dots - 4y + 1$
c_7, c_{11}	$y^{18} - 10y^{17} + \dots - 6y + 1$
c_8	$y^{18} + 20y^{17} + \dots + 18y + 1$
c_9	$y^{18} + 2y^{17} + \dots + 8y + 1$
c_{12}	$y^{18} - 6y^{17} + \dots - 10y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.663427 + 0.812489I$ $a = -0.1067230 + 0.0051625I$ $b = -0.687075 - 0.298572I$	$2.56473 + 2.09263I$	$6.27509 - 4.65916I$
$u = 0.663427 - 0.812489I$ $a = -0.1067230 - 0.0051625I$ $b = -0.687075 + 0.298572I$	$2.56473 - 2.09263I$	$6.27509 + 4.65916I$
$u = 0.329171 + 0.866966I$ $a = -1.23220 + 1.42346I$ $b = -0.738933 + 0.005475I$	$0.76853 + 1.42826I$	$8.35176 - 2.38264I$
$u = 0.329171 - 0.866966I$ $a = -1.23220 - 1.42346I$ $b = -0.738933 - 0.005475I$	$0.76853 - 1.42826I$	$8.35176 + 2.38264I$
$u = -0.767733 + 0.810239I$ $a = 0.224536 + 0.562717I$ $b = 0.019830 + 0.688255I$	$0.91380 - 6.14020I$	$1.38743 + 7.79716I$
$u = -0.767733 - 0.810239I$ $a = 0.224536 - 0.562717I$ $b = 0.019830 - 0.688255I$	$0.91380 + 6.14020I$	$1.38743 - 7.79716I$
$u = -0.308872 + 1.108840I$ $a = -0.40762 - 2.27471I$ $b = -0.723271 + 0.879058I$	$-3.46207 - 6.59532I$	$-0.29237 + 8.93365I$
$u = -0.308872 - 1.108840I$ $a = -0.40762 + 2.27471I$ $b = -0.723271 - 0.879058I$	$-3.46207 + 6.59532I$	$-0.29237 - 8.93365I$
$u = 0.676502 + 0.985205I$ $a = 0.784868 + 0.696433I$ $b = -0.781651 + 0.705840I$	$2.01899 + 3.08515I$	$4.31503 - 1.55560I$
$u = 0.676502 - 0.985205I$ $a = 0.784868 - 0.696433I$ $b = -0.781651 - 0.705840I$	$2.01899 - 3.08515I$	$4.31503 + 1.55560I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.777605 + 0.946138I$		
$a = 1.105390 + 0.065108I$	$0.504540 + 0.309567I$	$-0.80740 - 1.43142I$
$b = 0.299715 - 0.762984I$		
$u = -0.777605 - 0.946138I$		
$a = 1.105390 - 0.065108I$	$0.504540 - 0.309567I$	$-0.80740 + 1.43142I$
$b = 0.299715 + 0.762984I$		
$u = -0.236516 + 0.684902I$		
$a = -1.95856 - 0.66471I$	$-1.79616 + 4.18945I$	$-0.25895 - 4.46563I$
$b = -0.452798 - 0.606876I$		
$u = -0.236516 - 0.684902I$		
$a = -1.95856 + 0.66471I$	$-1.79616 - 4.18945I$	$-0.25895 + 4.46563I$
$b = -0.452798 + 0.606876I$		
$u = -0.043389 + 1.388640I$		
$a = -1.70876 - 0.48185I$	$-8.29244 + 1.00000I$	$-10.45781 + 0.99918I$
$b = 2.96850 + 0.74047I$		
$u = -0.043389 - 1.388640I$		
$a = -1.70876 + 0.48185I$	$-8.29244 - 1.00000I$	$-10.45781 - 0.99918I$
$b = 2.96850 - 0.74047I$		
$u = -0.034984 + 0.541926I$		
$a = -2.20094 - 0.05979I$	$-4.73446 - 1.37974I$	$0.98722 + 4.89065I$
$b = 1.095690 - 0.356910I$		
$u = -0.034984 - 0.541926I$		
$a = -2.20094 + 0.05979I$	$-4.73446 + 1.37974I$	$0.98722 - 4.89065I$
$b = 1.095690 + 0.356910I$		

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{18} - 11u^{17} + \dots - 15u + 1)(u^{58} + 40u^{57} + \dots - 3009u + 361)$
c_2	$(u^{18} - u^{17} + \dots - u + 1)(u^{58} - 2u^{57} + \dots + 27u + 19)$
c_3	$(u^{18} + 7u^{17} + \dots + 7u + 1)(u^{58} - 6u^{57} + \dots + 9863u + 10043)$
c_4	$(u^{18} - 5u^{16} + \dots - 4u^2 + 1)(u^{58} - u^{57} + \dots - 6u + 19)$
c_5	$(u^{18} + 3u^{17} + \dots - 2u^2 + 1)(u^{58} + 30u^{56} + \dots - 6099u + 2888)$
c_6	$(u^{18} + u^{17} + \dots + u + 1)(u^{58} - 2u^{57} + \dots + 27u + 19)$
c_7	$(u^{18} - 2u^{17} + \dots - 2u + 1)(u^{58} - 3u^{57} + \dots + 12u + 1)$
c_8	$(u^{18} + 10u^{16} + \dots + 9u^2 + 1)(u^{58} - u^{57} + \dots + 958u + 751)$
c_9	$(u^{18} - 10u^{17} + \dots - 8u + 1)(u^{58} + 33u^{57} + \dots + 3228u + 361)$
c_{10}	$(u^{18} - 5u^{16} + \dots - 4u^2 + 1)(u^{58} - u^{57} + \dots - 6u + 19)$
c_{11}	$(u^{18} + 2u^{17} + \dots + 2u + 1)(u^{58} - 3u^{57} + \dots + 12u + 1)$
c_{12}	$(u^{18} + 2u^{17} + \dots + 2u + 1)(u^{58} + 3u^{57} + \dots + 113424u + 119344)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{18} + 3y^{17} + \dots - 21y + 1)$ $\cdot (y^{58} - 32y^{57} + \dots - 18457409y + 130321)$
c_2, c_6	$(y^{18} + 11y^{17} + \dots + 15y + 1)(y^{58} + 40y^{57} + \dots - 3009y + 361)$
c_3	$(y^{18} - y^{17} + \dots + 7y + 1)$ $\cdot (y^{58} - 72y^{57} + \dots - 2262348709y + 100861849)$
c_4, c_{10}	$(y^{18} - 10y^{17} + \dots - 8y + 1)(y^{58} - 33y^{57} + \dots - 3228y + 361)$
c_5	$(y^{18} + 15y^{17} + \dots - 4y + 1)$ $\cdot (y^{58} + 60y^{57} + \dots - 6995097y + 8340544)$
c_7, c_{11}	$(y^{18} - 10y^{17} + \dots - 6y + 1)(y^{58} - 5y^{57} + \dots - 26y + 1)$
c_8	$(y^{18} + 20y^{17} + \dots + 18y + 1)$ $\cdot (y^{58} + 73y^{57} + \dots + 20589374y + 564001)$
c_9	$(y^{18} + 2y^{17} + \dots + 8y + 1)(y^{58} - 9y^{57} + \dots - 449164y + 130321)$
c_{12}	$(y^{18} - 6y^{17} + \dots - 10y + 1)$ $\cdot (y^{58} + 75y^{57} + \dots - 34418530176y + 14242990336)$