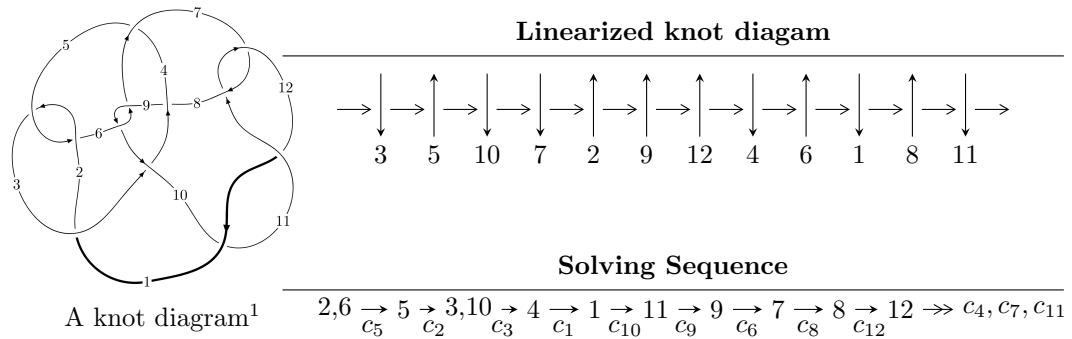


$12a_{0198}$ ($K12a_{0198}$)



Ideals for irreducible components² of X_{par}

$$I_1^u = \langle 4.09817 \times 10^{213} u^{103} + 9.03681 \times 10^{212} u^{102} + \dots + 3.04803 \times 10^{213} b + 3.78252 \times 10^{213}, \\ 2.98967 \times 10^{213} u^{103} + 1.28932 \times 10^{213} u^{102} + \dots + 3.04803 \times 10^{213} a + 1.33275 \times 10^{214}, u^{104} + u^{103} + \dots - \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 104 representations.

¹The image of knot diagram is generated by the software “**Draw programme**” developed by Andrew Bartholomew(<http://www.layer8.co.uk/math/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.

$$\text{I. } I_1^u = \langle 4.10 \times 10^{213}u^{103} + 9.04 \times 10^{212}u^{102} + \cdots + 3.05 \times 10^{213}b + 3.78 \times 10^{213}, 2.99 \times 10^{213}u^{103} + 1.29 \times 10^{213}u^{102} + \cdots + 3.05 \times 10^{213}a + 1.33 \times 10^{214}, u^{104} + u^{103} + \cdots - 18u + 1 \rangle$$

(i) **Arc colorings**

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

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

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

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

$$a_{10} = \begin{pmatrix} -0.980852u^{103} - 0.423002u^{102} + \cdots - 301.358u - 4.37249 \\ -1.34453u^{103} - 0.296480u^{102} + \cdots + 28.1294u - 1.24097 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -0.165090u^{103} + 0.388729u^{102} + \cdots - 249.973u + 34.5042 \\ 0.0825240u^{103} - 0.759955u^{102} + \cdots + 9.35599u - 2.04593 \end{pmatrix}$$

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

$$a_{11} = \begin{pmatrix} 0.326890u^{103} - 0.407412u^{102} + \cdots - 304.926u - 4.11718 \\ -0.930552u^{103} - 0.197634u^{102} + \cdots + 25.3578u - 1.01648 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.363680u^{103} - 0.126522u^{102} + \cdots - 329.487u - 3.13152 \\ -1.34453u^{103} - 0.296480u^{102} + \cdots + 28.1294u - 1.24097 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1.04068u^{103} - 0.0442496u^{102} + \cdots + 304.110u - 29.6838 \\ 1.60067u^{103} + 0.472640u^{102} + \cdots - 11.4919u + 1.90007 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.203520u^{103} + 0.306686u^{102} + \cdots - 469.111u + 0.852562 \\ -1.74430u^{103} - 0.392406u^{102} + \cdots + 35.3865u - 1.76628 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 2.18547u^{103} + 1.17719u^{102} + \cdots + 313.496u - 36.3829 \\ 0.863820u^{103} + 0.201308u^{102} + \cdots - 1.30985u + 1.64945 \end{pmatrix}$$

(ii) **Obstruction class** = -1

(iii) **Cusp Shapes** = $3.21119u^{103} - 3.19737u^{102} + \cdots - 71.5495u + 0.533728$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{104} + 41u^{103} + \cdots + 124u + 1$
c_2, c_5	$u^{104} + u^{103} + \cdots - 18u + 1$
c_3	$u^{104} + 11u^{103} + \cdots - 231098u + 177923$
c_4	$u^{104} + 23u^{103} + \cdots + 128u + 41$
c_6, c_9	$u^{104} + 5u^{103} + \cdots + 10u^2 + 1$
c_7, c_{11}	$u^{104} - 5u^{103} + \cdots - 2u + 1$
c_8	$u^{104} + u^{103} + \cdots - 10u + 1$
c_{10}, c_{12}	$u^{104} + 29u^{103} + \cdots + 20u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{104} + 45y^{103} + \cdots + 126804y + 1$
c_2, c_5	$y^{104} + 41y^{103} + \cdots + 124y + 1$
c_3	$y^{104} - 455y^{103} + \cdots + 1024648387080y + 31656593929$
c_4	$y^{104} + 425y^{103} + \cdots + 199112y + 1681$
c_6, c_9	$y^{104} + 65y^{103} + \cdots + 20y + 1$
c_7, c_{11}	$y^{104} + 29y^{103} + \cdots + 20y + 1$
c_8	$y^{104} + 5y^{103} + \cdots - 12y + 1$
c_{10}, c_{12}	$y^{104} + 93y^{103} + \cdots - 4y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.505387 + 0.862142I$		
$a = -6.9147 - 13.2965I$	$1.40373 - 0.79963I$	0
$b = -0.015623 + 1.032430I$		
$u = 0.505387 - 0.862142I$		
$a = -6.9147 + 13.2965I$	$1.40373 + 0.79963I$	0
$b = -0.015623 - 1.032430I$		
$u = 0.501219 + 0.873062I$		
$a = 13.51170 + 2.65015I$	$1.36834 + 4.88130I$	0
$b = 0.038652 - 1.005710I$		
$u = 0.501219 - 0.873062I$		
$a = 13.51170 - 2.65015I$	$1.36834 - 4.88130I$	0
$b = 0.038652 + 1.005710I$		
$u = 0.996201 + 0.173488I$		
$a = 0.392374 + 0.187730I$	$5.81316 - 2.80924I$	0
$b = 0.332779 - 0.565610I$		
$u = 0.996201 - 0.173488I$		
$a = 0.392374 - 0.187730I$	$5.81316 + 2.80924I$	0
$b = 0.332779 + 0.565610I$		
$u = -0.586727 + 0.827689I$		
$a = -0.096700 + 1.025660I$	$2.94293 + 0.22991I$	0
$b = 0.81719 + 1.39541I$		
$u = -0.586727 - 0.827689I$		
$a = -0.096700 - 1.025660I$	$2.94293 - 0.22991I$	0
$b = 0.81719 - 1.39541I$		
$u = 0.988414 + 0.247276I$		
$a = -0.405864 - 0.194160I$	$5.78547 + 3.15535I$	0
$b = -0.334041 + 0.546829I$		
$u = 0.988414 - 0.247276I$		
$a = -0.405864 + 0.194160I$	$5.78547 - 3.15535I$	0
$b = -0.334041 - 0.546829I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.836334 + 0.599618I$		
$a = -1.38843 - 0.45981I$	$7.69993 + 7.02828I$	0
$b = -1.013470 + 0.146587I$		
$u = -0.836334 - 0.599618I$		
$a = -1.38843 + 0.45981I$	$7.69993 - 7.02828I$	0
$b = -1.013470 - 0.146587I$		
$u = 0.412346 + 0.942918I$		
$a = 1.73833 - 2.45352I$	$-3.31178 + 1.98558I$	0
$b = 0.123181 + 1.085540I$		
$u = 0.412346 - 0.942918I$		
$a = 1.73833 + 2.45352I$	$-3.31178 - 1.98558I$	0
$b = 0.123181 - 1.085540I$		
$u = -0.607552 + 0.837105I$		
$a = 1.37091 + 0.92114I$	$3.03222 - 2.39899I$	0
$b = 1.292200 - 0.191558I$		
$u = -0.607552 - 0.837105I$		
$a = 1.37091 - 0.92114I$	$3.03222 + 2.39899I$	0
$b = 1.292200 + 0.191558I$		
$u = -0.581639 + 0.858516I$		
$a = 2.05036 + 0.18942I$	$2.85030 - 4.87673I$	0
$b = 0.57922 - 1.63420I$		
$u = -0.581639 - 0.858516I$		
$a = 2.05036 - 0.18942I$	$2.85030 + 4.87673I$	0
$b = 0.57922 + 1.63420I$		
$u = -0.816116 + 0.645065I$		
$a = 1.37577 + 0.50366I$	$8.39953 + 0.74620I$	0
$b = 1.033450 - 0.153354I$		
$u = -0.816116 - 0.645065I$		
$a = 1.37577 - 0.50366I$	$8.39953 - 0.74620I$	0
$b = 1.033450 + 0.153354I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.530773 + 0.778902I$		
$a = -1.99026 - 0.06316I$	$2.11332 + 1.88283I$	0
$b = -0.33699 + 1.68216I$		
$u = -0.530773 - 0.778902I$		
$a = -1.99026 + 0.06316I$	$2.11332 - 1.88283I$	0
$b = -0.33699 - 1.68216I$		
$u = -0.843149 + 0.398961I$		
$a = -0.796579 - 0.889832I$	$-2.96530 + 7.47434I$	0
$b = -0.537396 - 1.228480I$		
$u = -0.843149 - 0.398961I$		
$a = -0.796579 + 0.889832I$	$-2.96530 - 7.47434I$	0
$b = -0.537396 + 1.228480I$		
$u = -0.562569 + 0.913650I$		
$a = 0.450930 - 0.767392I$	$1.65712 - 6.30829I$	0
$b = -0.67940 - 1.58168I$		
$u = -0.562569 - 0.913650I$		
$a = 0.450930 + 0.767392I$	$1.65712 + 6.30829I$	0
$b = -0.67940 + 1.58168I$		
$u = -0.063215 + 1.078180I$		
$a = -0.386819 - 0.988960I$	$-5.04325 + 2.34615I$	0
$b = 0.227112 + 1.304850I$		
$u = -0.063215 - 1.078180I$		
$a = -0.386819 + 0.988960I$	$-5.04325 - 2.34615I$	0
$b = 0.227112 - 1.304850I$		
$u = -0.953692 + 0.515568I$		
$a = 0.682831 + 0.711222I$	$4.94747 + 6.36433I$	0
$b = 0.554982 + 1.263190I$		
$u = -0.953692 - 0.515568I$		
$a = 0.682831 - 0.711222I$	$4.94747 - 6.36433I$	0
$b = 0.554982 - 1.263190I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.553236 + 0.727396I$		
$a = -0.386426 + 0.064707I$	$0.11772 + 1.44824I$	0
$b = -0.101505 + 0.353271I$		
$u = 0.553236 - 0.727396I$		
$a = -0.386426 - 0.064707I$	$0.11772 - 1.44824I$	0
$b = -0.101505 - 0.353271I$		
$u = -0.977564 + 0.488443I$		
$a = -0.721488 - 0.693464I$	$4.22367 + 12.57380I$	0
$b = -0.547978 - 1.264760I$		
$u = -0.977564 - 0.488443I$		
$a = -0.721488 + 0.693464I$	$4.22367 - 12.57380I$	0
$b = -0.547978 + 1.264760I$		
$u = 0.161347 + 1.083530I$		
$a = -0.198232 - 0.559806I$	$1.13917 + 6.36070I$	0
$b = -0.565720 - 0.200757I$		
$u = 0.161347 - 1.083530I$		
$a = -0.198232 + 0.559806I$	$1.13917 - 6.36070I$	0
$b = -0.565720 + 0.200757I$		
$u = 0.255973 + 1.066190I$		
$a = 0.168535 + 0.484109I$	$1.62262 + 0.79893I$	0
$b = 0.497613 + 0.161245I$		
$u = 0.255973 - 1.066190I$		
$a = 0.168535 - 0.484109I$	$1.62262 - 0.79893I$	0
$b = 0.497613 - 0.161245I$		
$u = -0.737290 + 0.506701I$		
$a = 0.594472 + 0.998715I$	$0.12101 + 3.83292I$	0
$b = 0.582907 + 1.204340I$		
$u = -0.737290 - 0.506701I$		
$a = 0.594472 - 0.998715I$	$0.12101 - 3.83292I$	0
$b = 0.582907 - 1.204340I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.397803 + 0.796446I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = 2.13538 - 1.07987I$	$-2.81189 + 1.48523I$	0
$b = 0.124948 - 0.824931I$		
$u = 0.397803 - 0.796446I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = 2.13538 + 1.07987I$	$-2.81189 - 1.48523I$	0
$b = 0.124948 + 0.824931I$		
$u = -0.244913 + 1.089920I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = 0.534481 + 0.533393I$	$-7.44706 - 1.35876I$	0
$b = -0.27978 - 1.39230I$		
$u = -0.244913 - 1.089920I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = 0.534481 - 0.533393I$	$-7.44706 + 1.35876I$	0
$b = -0.27978 + 1.39230I$		
$u = -0.563984 + 0.974977I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = -0.967704 - 1.012100I$	$-1.16734 - 6.56904I$	0
$b = -1.267190 - 0.108109I$		
$u = -0.563984 - 0.974977I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = -0.967704 + 1.012100I$	$-1.16734 + 6.56904I$	0
$b = -1.267190 + 0.108109I$		
$u = 0.563323 + 0.976069I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = 0.214860 + 0.203704I$	$-0.88605 + 3.09648I$	0
$b = 0.301646 - 0.087160I$		
$u = 0.563323 - 0.976069I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = 0.214860 - 0.203704I$	$-0.88605 - 3.09648I$	0
$b = 0.301646 + 0.087160I$		
$u = 0.664866 + 0.555061I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = 0.150859 + 0.411065I$	$0.20121 + 1.54957I$	0
$b = 0.197184 + 0.715235I$		
$u = 0.664866 - 0.555061I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = 0.150859 - 0.411065I$	$0.20121 - 1.54957I$	0
$b = 0.197184 - 0.715235I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.541563 + 1.038640I$		
$a = -1.92835 - 0.47733I$	$-5.56704 - 5.39461I$	0
$b = -0.68081 + 1.34674I$		
$u = -0.541563 - 1.038640I$		
$a = -1.92835 + 0.47733I$	$-5.56704 + 5.39461I$	0
$b = -0.68081 - 1.34674I$		
$u = -0.139441 + 0.815286I$		
$a = -0.107784 - 0.995643I$	$-3.50757 + 1.44378I$	$-7.49193 - 4.44049I$
$b = -0.688124 - 0.558770I$		
$u = -0.139441 - 0.815286I$		
$a = -0.107784 + 0.995643I$	$-3.50757 - 1.44378I$	$-7.49193 + 4.44049I$
$b = -0.688124 + 0.558770I$		
$u = 0.791541 + 0.865692I$		
$a = -0.925362 - 0.291803I$	$-0.53591 + 3.95919I$	0
$b = -0.239348 - 0.862721I$		
$u = 0.791541 - 0.865692I$		
$a = -0.925362 + 0.291803I$	$-0.53591 - 3.95919I$	0
$b = -0.239348 + 0.862721I$		
$u = 0.598103 + 1.032470I$		
$a = -1.60013 + 0.38394I$	$-1.29854 + 3.50304I$	0
$b = -0.209568 - 0.988716I$		
$u = 0.598103 - 1.032470I$		
$a = -1.60013 - 0.38394I$	$-1.29854 - 3.50304I$	0
$b = -0.209568 + 0.988716I$		
$u = -0.626822 + 1.054980I$		
$a = 1.86254 + 0.41719I$	$-1.48010 - 9.03843I$	0
$b = 0.61435 - 1.37730I$		
$u = -0.626822 - 1.054980I$		
$a = 1.86254 - 0.41719I$	$-1.48010 + 9.03843I$	0
$b = 0.61435 + 1.37730I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.786160 + 0.943347I$		
$a = -0.347310 - 0.183982I$	$4.64197 + 0.21423I$	0
$b = -0.362772 + 0.261162I$		
$u = 0.786160 - 0.943347I$		
$a = -0.347310 + 0.183982I$	$4.64197 - 0.21423I$	0
$b = -0.362772 - 0.261162I$		
$u = 0.574664 + 0.511013I$		
$a = -0.617338 - 0.139145I$	$0.254275 + 1.333160I$	$3.09253 - 3.95569I$
$b = -0.206183 + 0.494096I$		
$u = 0.574664 - 0.511013I$		
$a = -0.617338 + 0.139145I$	$0.254275 - 1.333160I$	$3.09253 + 3.95569I$
$b = -0.206183 - 0.494096I$		
$u = -0.695804 + 1.019420I$		
$a = 1.014300 + 0.770211I$	$7.25970 - 6.40842I$	0
$b = 1.146680 + 0.007195I$		
$u = -0.695804 - 1.019420I$		
$a = 1.014300 - 0.770211I$	$7.25970 + 6.40842I$	0
$b = 1.146680 - 0.007195I$		
$u = 0.763291 + 0.985949I$		
$a = 0.335597 + 0.197355I$	$4.46281 + 6.08285I$	0
$b = 0.375401 - 0.234733I$		
$u = 0.763291 - 0.985949I$		
$a = 0.335597 - 0.197355I$	$4.46281 - 6.08285I$	0
$b = 0.375401 + 0.234733I$		
$u = 0.098837 + 0.743321I$		
$a = 1.89127 + 0.34280I$	$0.25747 - 2.49818I$	$-1.86836 + 3.61739I$
$b = 0.391631 - 0.750203I$		
$u = 0.098837 - 0.743321I$		
$a = 1.89127 - 0.34280I$	$0.25747 + 2.49818I$	$-1.86836 - 3.61739I$
$b = 0.391631 + 0.750203I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.050370 + 0.680338I$		
$a = 0.563271 + 0.072512I$	$5.32160 + 0.40661I$	0
$b = 0.318996 + 0.781931I$		
$u = 1.050370 - 0.680338I$		
$a = 0.563271 - 0.072512I$	$5.32160 - 0.40661I$	0
$b = 0.318996 - 0.781931I$		
$u = -0.687882 + 1.051100I$		
$a = -0.974401 - 0.763916I$	$6.3250 - 12.7173I$	0
$b = -1.133250 - 0.023746I$		
$u = -0.687882 - 1.051100I$		
$a = -0.974401 + 0.763916I$	$6.3250 + 12.7173I$	0
$b = -1.133250 + 0.023746I$		
$u = -0.097678 + 1.256820I$		
$a = 0.096434 + 0.703259I$	$-8.65151 + 4.70512I$	0
$b = -0.307554 - 1.285720I$		
$u = -0.097678 - 1.256820I$		
$a = 0.096434 - 0.703259I$	$-8.65151 - 4.70512I$	0
$b = -0.307554 + 1.285720I$		
$u = -0.276156 + 0.675129I$		
$a = -1.84613 - 0.61832I$	$-0.01020 + 2.19701I$	$-2.29099 - 5.45111I$
$b = -0.753175 + 0.632458I$		
$u = -0.276156 - 0.675129I$		
$a = -1.84613 + 0.61832I$	$-0.01020 - 2.19701I$	$-2.29099 + 5.45111I$
$b = -0.753175 - 0.632458I$		
$u = 1.048900 + 0.737652I$		
$a = -0.604511 - 0.068297I$	$5.20836 + 6.36397I$	0
$b = -0.320223 - 0.798682I$		
$u = 1.048900 - 0.737652I$		
$a = -0.604511 + 0.068297I$	$5.20836 - 6.36397I$	0
$b = -0.320223 + 0.798682I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.625889 + 1.119740I$	$-5.09982 - 12.90830I$	0
$a = -1.82121 - 0.45820I$		
$b = -0.59532 + 1.34507I$		
$u = -0.625889 - 1.119740I$	$-5.09982 + 12.90830I$	0
$a = -1.82121 + 0.45820I$		
$b = -0.59532 - 1.34507I$		
$u = -0.435139 + 0.541580I$	$-0.03969 + 2.18859I$	$0. - 5.53183I$
$a = -1.75759 - 0.57039I$		
$b = -0.843804 + 0.397536I$		
$u = -0.435139 - 0.541580I$	$-0.03969 - 2.18859I$	$0. + 5.53183I$
$a = -1.75759 + 0.57039I$		
$b = -0.843804 - 0.397536I$		
$u = 0.538328 + 1.211250I$	$-3.27693 + 5.64208I$	0
$a = 1.020570 - 0.702140I$		
$b = 0.269635 + 1.049080I$		
$u = 0.538328 - 1.211250I$	$-3.27693 - 5.64208I$	0
$a = 1.020570 + 0.702140I$		
$b = 0.269635 - 1.049080I$		
$u = -0.702251 + 1.128830I$	$3.05623 - 12.40750I$	0
$a = 1.77074 + 0.42168I$		
$b = 0.56556 - 1.35944I$		
$u = -0.702251 - 1.128830I$	$3.05623 + 12.40750I$	0
$a = 1.77074 - 0.42168I$		
$b = 0.56556 + 1.35944I$		
$u = -0.699999 + 1.148730I$	$2.1837 - 18.6708I$	0
$a = -1.76232 - 0.43473I$		
$b = -0.56292 + 1.35286I$		
$u = -0.699999 - 1.148730I$	$2.1837 + 18.6708I$	0
$a = -1.76232 + 0.43473I$		
$b = -0.56292 - 1.35286I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.084454 + 1.345260I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = 0.215536 - 0.791522I$	$-2.26641 + 3.85361I$	0
$b = 0.312103 + 1.212010I$		
$u = 0.084454 - 1.345260I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = 0.215536 + 0.791522I$	$-2.26641 - 3.85361I$	0
$b = 0.312103 - 1.212010I$		
$u = 0.035100 + 1.381650I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = -0.180333 + 0.713414I$	$-2.91423 + 9.64392I$	0
$b = -0.328473 - 1.223950I$		
$u = 0.035100 - 1.381650I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = -0.180333 - 0.713414I$	$-2.91423 - 9.64392I$	0
$b = -0.328473 + 1.223950I$		
$u = 0.570798 + 0.171210I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = -0.024673 - 0.218918I$	$0.348138 + 1.250510I$	$4.33846 - 5.62577I$
$b = 0.225209 + 0.629606I$		
$u = 0.570798 - 0.171210I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = -0.024673 + 0.218918I$	$0.348138 - 1.250510I$	$4.33846 + 5.62577I$
$b = 0.225209 - 0.629606I$		
$u = -0.512414 + 0.300789I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = -0.80972 - 1.57315I$	$-3.73698 + 1.08033I$	$-4.99609 - 1.21844I$
$b = -0.481029 - 1.099690I$		
$u = -0.512414 - 0.300789I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = -0.80972 + 1.57315I$	$-3.73698 - 1.08033I$	$-4.99609 + 1.21844I$
$b = -0.481029 + 1.099690I$		
$u = 0.74819 + 1.25033I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = -0.918808 + 0.360469I$	$2.80756 + 3.24354I$	0
$b = -0.317197 - 0.990579I$		
$u = 0.74819 - 1.25033I$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	
$a = -0.918808 - 0.360469I$	$2.80756 - 3.24354I$	0
$b = -0.317197 + 0.990579I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.71866 + 1.28682I$		
$a = 0.892581 - 0.408496I$	$2.50531 + 9.13493I$	0
$b = 0.321440 + 1.004820I$		
$u = 0.71866 - 1.28682I$		
$a = 0.892581 + 0.408496I$	$2.50531 - 9.13493I$	0
$b = 0.321440 - 1.004820I$		
$u = 0.0390323 + 0.0478117I$		
$a = -15.0554 - 16.4608I$	$1.42493 + 2.89189I$	$-2.46424 - 2.96057I$
$b = -0.035216 + 1.097540I$		
$u = 0.0390323 - 0.0478117I$		
$a = -15.0554 + 16.4608I$	$1.42493 - 2.89189I$	$-2.46424 + 2.96057I$
$b = -0.035216 - 1.097540I$		

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$u^{104} + 41u^{103} + \cdots + 124u + 1$
c_2, c_5	$u^{104} + u^{103} + \cdots - 18u + 1$
c_3	$u^{104} + 11u^{103} + \cdots - 231098u + 177923$
c_4	$u^{104} + 23u^{103} + \cdots + 128u + 41$
c_6, c_9	$u^{104} + 5u^{103} + \cdots + 10u^2 + 1$
c_7, c_{11}	$u^{104} - 5u^{103} + \cdots - 2u + 1$
c_8	$u^{104} + u^{103} + \cdots - 10u + 1$
c_{10}, c_{12}	$u^{104} + 29u^{103} + \cdots + 20u + 1$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$y^{104} + 45y^{103} + \cdots + 126804y + 1$
c_2, c_5	$y^{104} + 41y^{103} + \cdots + 124y + 1$
c_3	$y^{104} - 455y^{103} + \cdots + 1024648387080y + 31656593929$
c_4	$y^{104} + 425y^{103} + \cdots + 199112y + 1681$
c_6, c_9	$y^{104} + 65y^{103} + \cdots + 20y + 1$
c_7, c_{11}	$y^{104} + 29y^{103} + \cdots + 20y + 1$
c_8	$y^{104} + 5y^{103} + \cdots - 12y + 1$
c_{10}, c_{12}	$y^{104} + 93y^{103} + \cdots - 4y + 1$