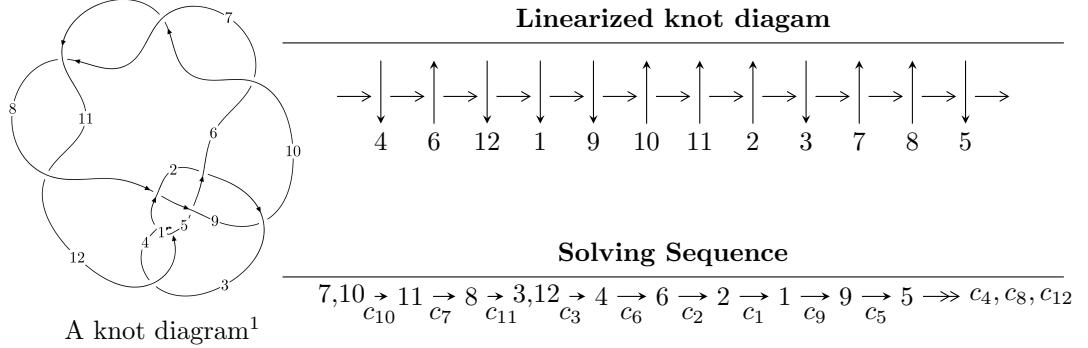


## $12a_{1007}$ ( $K12a_{1007}$ )



### Ideals for irreducible components<sup>2</sup> of $X_{\text{par}}$

$$I_1^u = \langle -2.73105 \times 10^{74} u^{73} + 1.04551 \times 10^{75} u^{72} + \dots + 6.63560 \times 10^{73} b + 5.79542 \times 10^{74},$$

$$2.90380 \times 10^{74} u^{73} - 1.11784 \times 10^{75} u^{72} + \dots + 6.63560 \times 10^{73} a - 7.84843 \times 10^{74}, u^{74} - 4u^{73} + \dots + 3u + 1 \rangle$$

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

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<sup>1</sup>The 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>).

<sup>2</sup>All coefficients of polynomials are rational numbers. But the coefficients are sometimes approximated in decimal forms when there is not enough margin.

I.

$$I_1^u = \langle -2.73 \times 10^{74}u^{73} + 1.05 \times 10^{75}u^{72} + \dots + 6.64 \times 10^{73}b + 5.80 \times 10^{74}, 2.90 \times 10^{74}u^{73} - 1.12 \times 10^{75}u^{72} + \dots + 6.64 \times 10^{73}a - 7.85 \times 10^{74}, u^{74} - 4u^{73} + \dots + 3u + 1 \rangle$$

(i) Arc colorings

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

$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} u \\ -u^3 + u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -4.37609u^{73} + 16.8460u^{72} + \dots + 52.4768u + 11.8278 \\ 4.11576u^{73} - 15.7560u^{72} + \dots - 45.0010u - 8.73384 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -u^2 + 1 \\ u^4 - 2u^2 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -6.70751u^{73} + 23.6093u^{72} + \dots + 56.6250u + 12.6818 \\ 7.05505u^{73} - 24.6502u^{72} + \dots - 59.0346u - 11.9969 \end{pmatrix}$$

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

$$a_2 = \begin{pmatrix} -5.25069u^{73} + 18.6857u^{72} + \dots + 52.3624u + 11.8764 \\ 4.99036u^{73} - 17.5957u^{72} + \dots - 44.8866u - 8.78248 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 6.92512u^{73} - 21.5547u^{72} + \dots - 40.4571u - 7.72040 \\ -6.48591u^{73} + 20.1000u^{72} + \dots + 34.5039u + 7.98169 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 3.64853u^{73} - 11.8343u^{72} + \dots - 31.7013u - 7.77982 \\ -6.07450u^{73} + 18.8967u^{72} + \dots + 44.3898u + 8.64309 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1.21712u^{73} - 5.23446u^{72} + \dots - 18.5691u - 4.25242 \\ -1.21712u^{73} + 5.23446u^{72} + \dots + 18.5691u + 3.25242 \end{pmatrix}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes =  $90.9880u^{73} - 311.861u^{72} + \dots - 727.709u - 161.363$

**(iv) u-Polynomials at the component**

Crossings	u-Polynomials at each crossing
$c_1, c_4, c_{12}$	$u^{74} - 2u^{73} + \cdots + 14u - 1$
$c_2$	$u^{74} - 5u^{73} + \cdots - 4u + 8$
$c_3$	$u^{74} + 2u^{73} + \cdots + 316u - 113$
$c_5$	$u^{74} + 4u^{73} + \cdots - 3u - 1$
$c_6, c_7, c_{10}$ $c_{11}$	$u^{74} - 4u^{73} + \cdots + 3u + 1$
$c_8$	$u^{74} + 29u^{72} + \cdots - 10528u - 1472$
$c_9$	$u^{74} + 2u^{73} + \cdots - 1674u + 189$

**(v) Riley Polynomials at the component**

Crossings	Riley Polynomials at each crossing
$c_1, c_4, c_{12}$	$y^{74} + 66y^{73} + \cdots - 86y + 1$
$c_2$	$y^{74} - 21y^{73} + \cdots + 176y + 64$
$c_3$	$y^{74} - 6y^{73} + \cdots - 1391446y + 12769$
$c_5$	$y^{74} - 8y^{73} + \cdots - 11y + 1$
$c_6, c_7, c_{10}$ $c_{11}$	$y^{74} - 88y^{73} + \cdots - 11y + 1$
$c_8$	$y^{74} + 58y^{73} + \cdots - 88558592y + 2166784$
$c_9$	$y^{74} + 90y^{73} + \cdots - 75006y + 35721$

(vi) Complex Volumes and Cusp Shapes

Solutions to $I_1^u$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.942093 + 0.309194I$		
$a = 0.82178 - 1.53663I$	$9.22994 - 3.76689I$	0
$b = 0.512844 + 1.053040I$		
$u = -0.942093 - 0.309194I$		
$a = 0.82178 + 1.53663I$	$9.22994 + 3.76689I$	0
$b = 0.512844 - 1.053040I$		
$u = -0.829214 + 0.539612I$		
$a = 0.454823 - 1.201050I$	$0.17157 - 8.96993I$	0
$b = 0.93839 + 1.08699I$		
$u = -0.829214 - 0.539612I$		
$a = 0.454823 + 1.201050I$	$0.17157 + 8.96993I$	0
$b = 0.93839 - 1.08699I$		
$u = 0.759294 + 0.675735I$		
$a = -0.727541 - 0.427353I$	$6.66017 + 4.10483I$	0
$b = 0.083007 + 0.966573I$		
$u = 0.759294 - 0.675735I$		
$a = -0.727541 + 0.427353I$	$6.66017 - 4.10483I$	0
$b = 0.083007 - 0.966573I$		
$u = -0.875516 + 0.576026I$		
$a = -0.378694 + 1.296850I$	$5.52475 - 12.85780I$	0
$b = -0.94555 - 1.18981I$		
$u = -0.875516 - 0.576026I$		
$a = -0.378694 - 1.296850I$	$5.52475 + 12.85780I$	0
$b = -0.94555 + 1.18981I$		
$u = -0.783161 + 0.448813I$		
$a = -0.672469 + 1.120440I$	$1.93066 - 4.73106I$	0
$b = -0.846780 - 0.934444I$		
$u = -0.783161 - 0.448813I$		
$a = -0.672469 - 1.120440I$	$1.93066 + 4.73106I$	0
$b = -0.846780 + 0.934444I$		

Solutions to $I_1^u$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.019360 + 0.418934I$		
$a = -0.652930 - 0.054022I$	$1.233780 - 0.643810I$	0
$b = 0.195417 + 0.497499I$		
$u = 1.019360 - 0.418934I$		
$a = -0.652930 + 0.054022I$	$1.233780 + 0.643810I$	0
$b = 0.195417 - 0.497499I$		
$u = 0.683679 + 0.520772I$		
$a = 0.646846 + 0.414647I$	$1.52626 + 1.62659I$	0
$b = 0.063130 - 0.851636I$		
$u = 0.683679 - 0.520772I$		
$a = 0.646846 - 0.414647I$	$1.52626 - 1.62659I$	0
$b = 0.063130 + 0.851636I$		
$u = -0.042815 + 0.820802I$		
$a = -0.022920 - 0.248405I$	$2.99294 + 8.23725I$	0
$b = 0.752740 - 0.872074I$		
$u = -0.042815 - 0.820802I$		
$a = -0.022920 + 0.248405I$	$2.99294 - 8.23725I$	0
$b = 0.752740 + 0.872074I$		
$u = 1.041600 + 0.561025I$		
$a = 0.843277 + 0.134056I$	$6.23102 - 3.52690I$	0
$b = -0.345412 - 0.645126I$		
$u = 1.041600 - 0.561025I$		
$a = 0.843277 - 0.134056I$	$6.23102 + 3.52690I$	0
$b = -0.345412 + 0.645126I$		
$u = 0.804616$		
$a = 0.0596040$	1.37963	7.78020
$b = -0.470934$		
$u = 0.278147 + 0.701699I$		
$a = -0.531426 - 0.183780I$	$5.32512 + 0.61066I$	$6.95537 - 3.49676I$
$b = -0.370065 + 0.993896I$		

Solutions to $I_1^u$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.278147 - 0.701699I$		
$a = -0.531426 + 0.183780I$	$5.32512 - 0.61066I$	$6.95537 + 3.49676I$
$b = -0.370065 - 0.993896I$		
$u = -0.076491 + 0.743872I$		
$a = -0.068451 + 0.435127I$	$-2.10901 + 4.69253I$	$-2.35074 - 6.40585I$
$b = -0.708862 + 0.765875I$		
$u = -0.076491 - 0.743872I$		
$a = -0.068451 - 0.435127I$	$-2.10901 - 4.69253I$	$-2.35074 + 6.40585I$
$b = -0.708862 - 0.765875I$		
$u = -0.697142 + 0.254994I$		
$a = -0.84682 - 2.27846I$	$4.36563 - 5.67177I$	$5.66664 + 10.45565I$
$b = 0.394907 + 0.369057I$		
$u = -0.697142 - 0.254994I$		
$a = -0.84682 + 2.27846I$	$4.36563 + 5.67177I$	$5.66664 - 10.45565I$
$b = 0.394907 - 0.369057I$		
$u = 1.232420 + 0.264639I$		
$a = 0.554960 - 0.396105I$	$4.38603 + 1.61993I$	$0$
$b = -0.260746 - 0.134724I$		
$u = 1.232420 - 0.264639I$		
$a = 0.554960 + 0.396105I$	$4.38603 - 1.61993I$	$0$
$b = -0.260746 + 0.134724I$		
$u = 0.679946 + 0.082464I$		
$a = -0.43115 + 3.67418I$	$4.22903 + 3.00667I$	$-23.7815 + 12.2873I$
$b = 0.41590 - 3.16791I$		
$u = 0.679946 - 0.082464I$		
$a = -0.43115 - 3.67418I$	$4.22903 - 3.00667I$	$-23.7815 - 12.2873I$
$b = 0.41590 + 3.16791I$		
$u = -0.581096 + 0.313903I$		
$a = -1.213140 + 0.596613I$	$1.22795 - 4.09761I$	$0.86435 + 10.33100I$
$b = -0.822786 - 0.504890I$		

Solutions to $I_1^u$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.581096 - 0.313903I$		
$a = -1.213140 - 0.596613I$	$1.22795 + 4.09761I$	$0.86435 - 10.33100I$
$b = -0.822786 + 0.504890I$		
$u = 0.590590 + 0.079779I$		
$a = 0.28668 - 3.05361I$	$-0.097330 + 0.250762I$	$-5.7725 + 24.0060I$
$b = -0.11712 + 2.48646I$		
$u = 0.590590 - 0.079779I$		
$a = 0.28668 + 3.05361I$	$-0.097330 - 0.250762I$	$-5.7725 - 24.0060I$
$b = -0.11712 - 2.48646I$		
$u = -0.178104 + 0.556859I$		
$a = 0.277771 - 1.018920I$	$-0.013339 + 1.302490I$	$-1.19820 - 1.15705I$
$b = 0.587211 - 0.511483I$		
$u = -0.178104 - 0.556859I$		
$a = 0.277771 + 1.018920I$	$-0.013339 - 1.302490I$	$-1.19820 + 1.15705I$
$b = 0.587211 + 0.511483I$		
$u = -0.516630 + 0.230004I$		
$a = 0.36605 + 2.44705I$	$-1.24147 - 1.91408I$	$-5.09899 + 10.28622I$
$b = -0.314688 - 0.080344I$		
$u = -0.516630 - 0.230004I$		
$a = 0.36605 - 2.44705I$	$-1.24147 + 1.91408I$	$-5.09899 - 10.28622I$
$b = -0.314688 + 0.080344I$		
$u = 0.458807 + 0.180216I$		
$a = -0.85511 + 2.71233I$	$3.88920 - 2.27458I$	$1.22488 + 8.50227I$
$b = 0.70245 - 1.70843I$		
$u = 0.458807 - 0.180216I$		
$a = -0.85511 - 2.71233I$	$3.88920 + 2.27458I$	$1.22488 - 8.50227I$
$b = 0.70245 + 1.70843I$		
$u = -1.55302 + 0.02610I$		
$a = -0.25871 - 2.13725I$	$10.61670 - 2.04355I$	$0$
$b = 0.68489 + 1.79511I$		

Solutions to $I_1^u$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.55302 - 0.02610I$		
$a = -0.25871 + 2.13725I$	$10.61670 + 2.04355I$	0
$b = 0.68489 - 1.79511I$		
$u = -0.048697 + 0.438598I$		
$a = 0.930836 - 0.918696I$	$-0.060405 + 1.403310I$	$-0.47421 - 3.22545I$
$b = 0.383488 - 0.579860I$		
$u = -0.048697 - 0.438598I$		
$a = 0.930836 + 0.918696I$	$-0.060405 - 1.403310I$	$-0.47421 + 3.22545I$
$b = 0.383488 + 0.579860I$		
$u = 1.57754$		
$a = -0.226280$	5.13843	0
$b = -1.08206$		
$u = 1.58226 + 0.03011I$		
$a = -0.26906 + 1.71184I$	$6.03750 + 2.63879I$	0
$b = 0.025820 - 0.468816I$		
$u = 1.58226 - 0.03011I$		
$a = -0.26906 - 1.71184I$	$6.03750 - 2.63879I$	0
$b = 0.025820 + 0.468816I$		
$u = 1.58916 + 0.05016I$		
$a = 0.069893 + 0.879917I$	$8.67348 + 5.20861I$	0
$b = 1.086110 - 0.532337I$		
$u = 1.58916 - 0.05016I$		
$a = 0.069893 - 0.879917I$	$8.67348 - 5.20861I$	0
$b = 1.086110 + 0.532337I$		
$u = -1.60397 + 0.01496I$		
$a = 0.74114 - 3.10611I$	$7.59534 - 0.55477I$	0
$b = -0.95392 + 2.77699I$		
$u = -1.60397 - 0.01496I$		
$a = 0.74114 + 3.10611I$	$7.59534 + 0.55477I$	0
$b = -0.95392 - 2.77699I$		

Solutions to $I_1^u$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.62084 + 0.05971I$		
$a = 0.56755 - 1.69860I$	$12.4082 + 6.7857I$	0
$b = -0.050518 + 0.593462I$		
$u = 1.62084 - 0.05971I$		
$a = 0.56755 + 1.69860I$	$12.4082 - 6.7857I$	0
$b = -0.050518 - 0.593462I$		
$u = -1.62819 + 0.02954I$		
$a = -0.25981 + 3.45963I$	$12.34910 - 3.46973I$	0
$b = 0.38510 - 3.04819I$		
$u = -1.62819 - 0.02954I$		
$a = -0.25981 - 3.45963I$	$12.34910 + 3.46973I$	0
$b = 0.38510 + 3.04819I$		
$u = -1.62870 + 0.15990I$		
$a = -0.270266 + 1.334690I$	$9.47696 - 4.24095I$	0
$b = -0.344859 - 1.144900I$		
$u = -1.62870 - 0.15990I$		
$a = -0.270266 - 1.334690I$	$9.47696 + 4.24095I$	0
$b = -0.344859 + 1.144900I$		
$u = 1.64161 + 0.12775I$		
$a = -0.15420 + 1.69986I$	$10.27170 + 6.92583I$	0
$b = 1.04989 - 1.20464I$		
$u = 1.64161 - 0.12775I$		
$a = -0.15420 - 1.69986I$	$10.27170 - 6.92583I$	0
$b = 1.04989 + 1.20464I$		
$u = -1.65700 + 0.08518I$		
$a = -0.092227 - 1.003530I$	$10.43250 - 0.92808I$	0
$b = 0.633049 + 0.868120I$		
$u = -1.65700 - 0.08518I$		
$a = -0.092227 + 1.003530I$	$10.43250 + 0.92808I$	0
$b = 0.633049 - 0.868120I$		

Solutions to $I_1^u$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.65340 + 0.15594I$		
$a = 0.23581 - 1.86604I$	$8.6605 + 11.6416I$	0
$b = -1.08403 + 1.37222I$		
$u = 1.65340 - 0.15594I$		
$a = 0.23581 + 1.86604I$	$8.6605 - 11.6416I$	0
$b = -1.08403 - 1.37222I$		
$u = -1.65535 + 0.20131I$		
$a = 0.461400 - 1.305450I$	$14.8889 - 7.4681I$	0
$b = 0.191063 + 1.136940I$		
$u = -1.65535 - 0.20131I$		
$a = 0.461400 + 1.305450I$	$14.8889 + 7.4681I$	0
$b = 0.191063 - 1.136940I$		
$u = -0.288235 + 0.161328I$		
$a = 2.08965 + 0.60336I$	$-1.79590 + 0.04835I$	$-7.72033 + 2.40236I$
$b = 0.851960 + 0.035687I$		
$u = -0.288235 - 0.161328I$		
$a = 2.08965 - 0.60336I$	$-1.79590 - 0.04835I$	$-7.72033 - 2.40236I$
$b = 0.851960 - 0.035687I$		
$u = 1.67485 + 0.08494I$		
$a = -0.18727 - 1.73912I$	$18.3117 + 5.3180I$	0
$b = -0.731206 + 1.134850I$		
$u = 1.67485 - 0.08494I$		
$a = -0.18727 + 1.73912I$	$18.3117 - 5.3180I$	0
$b = -0.731206 - 1.134850I$		
$u = 1.67017 + 0.16856I$		
$a = -0.22476 + 1.98140I$	$14.2321 + 15.7575I$	0
$b = 1.04949 - 1.47622I$		
$u = 1.67017 - 0.16856I$		
$a = -0.22476 - 1.98140I$	$14.2321 - 15.7575I$	0
$b = 1.04949 + 1.47622I$		

Solutions to $I_1^u$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.051463 + 0.297579I$		
$a = -0.80704 - 2.13227I$	$2.60707 + 3.62012I$	$-0.482860 - 0.752061I$
$b = -1.056030 + 0.299059I$		
$u = -0.051463 - 0.297579I$		
$a = -0.80704 + 2.13227I$	$2.60707 - 3.62012I$	$-0.482860 + 0.752061I$
$b = -1.056030 - 0.299059I$		
$u = -1.73032 + 0.09654I$		
$a = -0.341147 + 0.686921I$	$16.1715 + 1.0241I$	0
$b = -0.257783 - 0.605681I$		
$u = -1.73032 - 0.09654I$		
$a = -0.341147 - 0.686921I$	$16.1715 - 1.0241I$	0
$b = -0.257783 + 0.605681I$		

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

(i) **Arc colorings**

$$\begin{aligned} a_7 &= \begin{pmatrix} 0 \\ 1 \end{pmatrix} \\ a_{10} &= \begin{pmatrix} 1 \\ 0 \end{pmatrix} \\ a_{11} &= \begin{pmatrix} 1 \\ -1 \end{pmatrix} \\ a_8 &= \begin{pmatrix} 1 \\ 0 \end{pmatrix} \\ a_3 &= \begin{pmatrix} a \\ -a \end{pmatrix} \\ a_{12} &= \begin{pmatrix} 0 \\ -1 \end{pmatrix} \\ a_4 &= \begin{pmatrix} a \\ 0 \end{pmatrix} \\ a_6 &= \begin{pmatrix} -1 \\ 1 \end{pmatrix} \\ a_2 &= \begin{pmatrix} a \\ -a \end{pmatrix} \\ a_1 &= \begin{pmatrix} a^2 + a - 1 \\ -a \end{pmatrix} \\ a_9 &= \begin{pmatrix} a^2 + 1 \\ -a^2 \end{pmatrix} \\ a_5 &= \begin{pmatrix} a^2 \\ -a^2 + 1 \end{pmatrix} \end{aligned}$$

(ii) **Obstruction class = 1**

(iii) **Cusp Shapes** =  $-a^2 - 5a + 1$

**(iv) u-Polynomials at the component**

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

**(v) Riley Polynomials at the component**

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

**(vi) Complex Volumes and Cusp Shapes**

Solutions to $I_2^u$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.00000$		
$a = -0.877439 + 0.744862I$	$4.66906 + 2.82812I$	$5.17211 - 2.41717I$
$b = 0.877439 - 0.744862I$		
$u = 1.00000$		
$a = -0.877439 - 0.744862I$	$4.66906 - 2.82812I$	$5.17211 + 2.41717I$
$b = 0.877439 + 0.744862I$		
$u = 1.00000$		
$a = 0.754878$	0.531480	-3.34420
$b = -0.754878$		

### III. u-Polynomials

Crossings	u-Polynomials at each crossing
$c_1, c_{12}$	$(u^3 - u^2 + 2u - 1)(u^{74} - 2u^{73} + \dots + 14u - 1)$
$c_2$	$u^3(u^{74} - 5u^{73} + \dots - 4u + 8)$
$c_3$	$(u^3 - u^2 + 1)(u^{74} + 2u^{73} + \dots + 316u - 113)$
$c_4$	$(u^3 + u^2 + 2u + 1)(u^{74} - 2u^{73} + \dots + 14u - 1)$
$c_5$	$((u + 1)^3)(u^{74} + 4u^{73} + \dots - 3u - 1)$
$c_6, c_7$	$((u + 1)^3)(u^{74} - 4u^{73} + \dots + 3u + 1)$
$c_8$	$(u^3 - u^2 + 1)(u^{74} + 29u^{72} + \dots - 10528u - 1472)$
$c_9$	$(u^3 - u^2 + 1)(u^{74} + 2u^{73} + \dots - 1674u + 189)$
$c_{10}, c_{11}$	$((u - 1)^3)(u^{74} - 4u^{73} + \dots + 3u + 1)$

#### IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
$c_1, c_4, c_{12}$	$(y^3 + 3y^2 + 2y - 1)(y^{74} + 66y^{73} + \dots - 86y + 1)$
$c_2$	$y^3(y^{74} - 21y^{73} + \dots + 176y + 64)$
$c_3$	$(y^3 - y^2 + 2y - 1)(y^{74} - 6y^{73} + \dots - 1391446y + 12769)$
$c_5$	$((y - 1)^3)(y^{74} - 8y^{73} + \dots - 11y + 1)$
$c_6, c_7, c_{10}$ $c_{11}$	$((y - 1)^3)(y^{74} - 88y^{73} + \dots - 11y + 1)$
$c_8$	$(y^3 - y^2 + 2y - 1)(y^{74} + 58y^{73} + \dots - 8.85586 \times 10^7 y + 2166784)$
$c_9$	$(y^3 - y^2 + 2y - 1)(y^{74} + 90y^{73} + \dots - 75006y + 35721)$