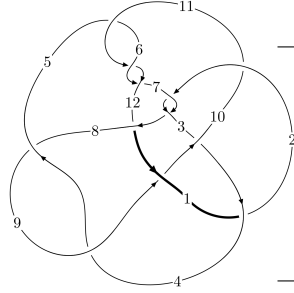
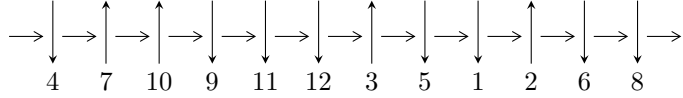


12a₁₀₇₁ (K12a₁₀₇₁)



A knot diagram¹

Linearized knot diagram



Solving Sequence

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

Ideals for irreducible components² of X_{par}

$$I_1^u = \langle 1.77660 \times 10^{1245} u^{148} + 6.71415 \times 10^{1245} u^{147} + \dots + 3.74457 \times 10^{1246} b + 4.40626 \times 10^{1246}, \\ - 8.25994 \times 10^{1246} u^{148} - 3.27069 \times 10^{1247} u^{147} + \dots + 7.11469 \times 10^{1247} a - 7.83372 \times 10^{1248}, \\ u^{149} + 4u^{148} + \dots + 73u + 19 \rangle$$

$$I_2^u = \langle 3.40750 \times 10^{59} u^{37} - 4.78008 \times 10^{59} u^{36} + \dots + 2.11717 \times 10^{60} b + 2.49956 \times 10^{60}, \\ 1.11713 \times 10^{60} u^{37} + 5.75954 \times 10^{59} u^{36} + \dots + 2.11717 \times 10^{60} a + 3.00294 \times 10^{59}, u^{38} + u^{37} + \dots + u + 1 \rangle$$

* 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.

$$\mathbf{I. } I_1^u = \langle 1.78 \times 10^{1245} u^{148} + 6.71 \times 10^{1245} u^{147} + \dots + 3.74 \times 10^{1246} b + 4.41 \times 10^{1246}, -8.26 \times 10^{1246} u^{148} - 3.27 \times 10^{1247} u^{147} + \dots + 7.11 \times 10^{1247} a - 7.83 \times 10^{1248}, u^{149} + 4u^{148} + \dots + 73u + 19 \rangle$$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.116097u^{148} + 0.459709u^{147} + \dots + 40.4995u + 11.0106 \\ -0.0474446u^{148} - 0.179304u^{147} + \dots - 10.7177u - 1.17671 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.0686524u^{148} + 0.280405u^{147} + \dots + 29.7818u + 9.83393 \\ -0.0474446u^{148} - 0.179304u^{147} + \dots - 10.7177u - 1.17671 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.186978u^{148} - 0.641792u^{147} + \dots - 24.8565u + 8.19043 \\ 0.00844573u^{148} - 0.0141488u^{147} + \dots - 15.8056u - 7.69389 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.00409401u^{148} + 0.146299u^{147} + \dots + 17.3491u + 25.6214 \\ -0.0900120u^{148} - 0.368345u^{147} + \dots - 23.8847u - 6.46783 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.123082u^{148} + 0.486614u^{147} + \dots + 38.7720u + 10.9005 \\ -0.0540469u^{148} - 0.202096u^{147} + \dots - 10.9116u - 0.958002 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.381708u^{148} + 1.49767u^{147} + \dots + 76.5844u + 9.83207 \\ 0.0232331u^{148} + 0.130543u^{147} + \dots + 8.11317u + 3.92302 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0.492860u^{148} + 1.91718u^{147} + \dots + 107.856u + 14.4413 \\ -0.102583u^{148} - 0.381654u^{147} + \dots - 19.7050u + 1.13749 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.290140u^{148} - 0.970062u^{147} + \dots - 14.3930u + 25.9448 \\ -0.106358u^{148} - 0.443882u^{147} + \dots - 27.3949u - 10.0581 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.0591855u^{148} - 0.0201284u^{147} + \dots + 40.0677u + 41.7863 \\ -0.194071u^{148} - 0.782151u^{147} + \dots - 45.3045u - 12.0010 \end{pmatrix}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes = $0.147174u^{148} + 0.542286u^{147} + \dots + 1.94409u - 6.94054$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{149} - 10u^{148} + \dots + 347212u - 23201$
c_2, c_7	$u^{149} + 2u^{148} + \dots - 24326u + 7187$
c_3	$u^{149} + u^{148} + \dots + u + 1$
c_4, c_8	$u^{149} + 4u^{148} + \dots + 163388u + 15389$
c_5, c_6, c_{11}	$u^{149} + u^{148} + \dots - 4044u + 667$
c_9	$u^{149} + 4u^{148} + \dots + 73u + 19$
c_{10}	$u^{149} + 4u^{148} + \dots - 116639488u + 34307711$
c_{12}	$u^{149} + u^{148} + \dots - 3432u + 23659$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{149} + 34y^{148} + \dots - 32477715860y - 538286401$
c_2, c_7	$y^{149} - 80y^{148} + \dots + 2042752080y - 51652969$
c_3	$y^{149} + 15y^{148} + \dots - 27y - 1$
c_4, c_8	$y^{149} + 110y^{148} + \dots - 12741844090y - 236821321$
c_5, c_6, c_{11}	$y^{149} - 141y^{148} + \dots - 16078272y - 444889$
c_9	$y^{149} + 28y^{148} + \dots - 10593y - 361$
c_{10}	$y^{149} - 12y^{148} + \dots + 25050115881431194y - 1177019034059521$
c_{12}	$y^{149} + 3y^{148} + \dots + 13696191542y - 559748281$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.822791 + 0.566488I$ $a = 0.044387 - 0.717158I$ $b = -0.912414 + 0.652071I$	$-6.14043 + 2.41887I$	0
$u = 0.822791 - 0.566488I$ $a = 0.044387 + 0.717158I$ $b = -0.912414 - 0.652071I$	$-6.14043 - 2.41887I$	0
$u = 0.684487 + 0.702737I$ $a = 0.250571 - 1.362020I$ $b = 0.00643 + 1.64717I$	$0.17185 - 1.66565I$	0
$u = 0.684487 - 0.702737I$ $a = 0.250571 + 1.362020I$ $b = 0.00643 - 1.64717I$	$0.17185 + 1.66565I$	0
$u = -0.641687 + 0.792516I$ $a = -0.232348 - 1.226240I$ $b = -0.33350 + 1.39920I$	$3.07150 + 2.81514I$	0
$u = -0.641687 - 0.792516I$ $a = -0.232348 + 1.226240I$ $b = -0.33350 - 1.39920I$	$3.07150 - 2.81514I$	0
$u = 0.556712 + 0.869557I$ $a = 1.91956 - 1.09013I$ $b = 0.028314 + 1.005700I$	$3.26290 - 3.19090I$	0
$u = 0.556712 - 0.869557I$ $a = 1.91956 + 1.09013I$ $b = 0.028314 - 1.005700I$	$3.26290 + 3.19090I$	0
$u = 0.712704 + 0.620664I$ $a = -0.529672 + 0.671924I$ $b = 1.191280 - 0.507002I$	$-7.60678 - 0.81095I$	0
$u = 0.712704 - 0.620664I$ $a = -0.529672 - 0.671924I$ $b = 1.191280 + 0.507002I$	$-7.60678 + 0.81095I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.740114 + 0.574065I$ $a = -0.1021720 - 0.0224356I$ $b = 1.370960 - 0.000930I$	$-7.36674 + 6.08958I$	0
$u = -0.740114 - 0.574065I$ $a = -0.1021720 + 0.0224356I$ $b = 1.370960 + 0.000930I$	$-7.36674 - 6.08958I$	0
$u = 0.909823 + 0.208880I$ $a = 0.076887 - 0.857113I$ $b = 0.521071 - 0.246570I$	$1.16655 - 3.31820I$	0
$u = 0.909823 - 0.208880I$ $a = 0.076887 + 0.857113I$ $b = 0.521071 + 0.246570I$	$1.16655 + 3.31820I$	0
$u = -0.784235 + 0.473889I$ $a = 0.380299 - 0.660353I$ $b = 0.663142 + 0.352778I$	$-1.01300 + 1.08677I$	0
$u = -0.784235 - 0.473889I$ $a = 0.380299 + 0.660353I$ $b = 0.663142 - 0.352778I$	$-1.01300 - 1.08677I$	0
$u = 0.555083 + 0.728859I$ $a = 0.055058 - 1.204150I$ $b = 0.66833 + 1.49831I$	$-2.51266 - 5.39632I$	0
$u = 0.555083 - 0.728859I$ $a = 0.055058 + 1.204150I$ $b = 0.66833 - 1.49831I$	$-2.51266 + 5.39632I$	0
$u = -0.914640 + 0.008017I$ $a = -0.250572 - 0.138236I$ $b = -0.602304 - 0.012616I$	$-1.092020 + 0.014144I$	0
$u = -0.914640 - 0.008017I$ $a = -0.250572 + 0.138236I$ $b = -0.602304 + 0.012616I$	$-1.092020 - 0.014144I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.731838 + 0.545147I$ $a = -0.193433 - 0.016628I$ $b = -1.062520 - 0.136919I$	$-1.84016 - 3.70908I$	0
$u = 0.731838 - 0.545147I$ $a = -0.193433 + 0.016628I$ $b = -1.062520 + 0.136919I$	$-1.84016 + 3.70908I$	0
$u = 0.347179 + 1.032320I$ $a = -0.202267 + 1.398820I$ $b = -0.68947 - 1.43468I$	$1.46037 - 10.80160I$	0
$u = 0.347179 - 1.032320I$ $a = -0.202267 - 1.398820I$ $b = -0.68947 + 1.43468I$	$1.46037 + 10.80160I$	0
$u = 0.404945 + 1.018820I$ $a = -0.959555 + 0.809393I$ $b = -0.028656 - 0.343001I$	$-5.06271 - 2.99689I$	0
$u = 0.404945 - 1.018820I$ $a = -0.959555 - 0.809393I$ $b = -0.028656 + 0.343001I$	$-5.06271 + 2.99689I$	0
$u = -0.852504 + 0.295008I$ $a = 0.234306 - 1.239890I$ $b = -0.559603 - 0.441689I$	$-3.79545 + 6.56578I$	0
$u = -0.852504 - 0.295008I$ $a = 0.234306 + 1.239890I$ $b = -0.559603 + 0.441689I$	$-3.79545 - 6.56578I$	0
$u = -1.002830 + 0.448400I$ $a = -0.530112 - 1.002450I$ $b = -0.181425 + 1.238740I$	$2.67786 + 2.86179I$	0
$u = -1.002830 - 0.448400I$ $a = -0.530112 + 1.002450I$ $b = -0.181425 - 1.238740I$	$2.67786 - 2.86179I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.827165 + 0.732877I$ $a = 0.065449 + 0.399351I$ $b = -0.954242 - 0.148969I$	$0.52778 + 4.02864I$	0
$u = -0.827165 - 0.732877I$ $a = 0.065449 - 0.399351I$ $b = -0.954242 + 0.148969I$	$0.52778 - 4.02864I$	0
$u = 0.059435 + 1.123230I$ $a = -0.451872 - 0.783174I$ $b = -0.123028 + 0.175062I$	$3.28868 + 4.01813I$	0
$u = 0.059435 - 1.123230I$ $a = -0.451872 + 0.783174I$ $b = -0.123028 - 0.175062I$	$3.28868 - 4.01813I$	0
$u = -0.136752 + 1.117670I$ $a = -0.004680 + 1.318210I$ $b = -0.659862 - 1.135610I$	$4.32831 - 0.18892I$	0
$u = -0.136752 - 1.117670I$ $a = -0.004680 - 1.318210I$ $b = -0.659862 + 1.135610I$	$4.32831 + 0.18892I$	0
$u = -0.567264 + 0.981487I$ $a = -1.51309 - 1.55737I$ $b = -0.103630 + 1.215780I$	$7.04562 + 5.07163I$	0
$u = -0.567264 - 0.981487I$ $a = -1.51309 + 1.55737I$ $b = -0.103630 - 1.215780I$	$7.04562 - 5.07163I$	0
$u = 0.856339 + 0.744503I$ $a = -0.0741008 + 0.0814312I$ $b = 1.107120 + 0.073780I$	$1.29255 - 9.14879I$	0
$u = 0.856339 - 0.744503I$ $a = -0.0741008 - 0.0814312I$ $b = 1.107120 - 0.073780I$	$1.29255 + 9.14879I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.193727 + 1.118850I$		
$a = 0.146515 + 1.372280I$	$6.87557 + 5.98406I$	0
$b = 0.62993 - 1.32351I$		
$u = -0.193727 - 1.118850I$		
$a = 0.146515 - 1.372280I$	$6.87557 - 5.98406I$	0
$b = 0.62993 + 1.32351I$		
$u = 1.016100 + 0.510997I$		
$a = -1.029400 - 0.247265I$	$-3.94520 + 0.52520I$	0
$b = 0.145981 - 0.973278I$		
$u = 1.016100 - 0.510997I$		
$a = -1.029400 + 0.247265I$	$-3.94520 - 0.52520I$	0
$b = 0.145981 + 0.973278I$		
$u = 1.081810 + 0.393115I$		
$a = -0.432295 + 0.129104I$	$-8.43281 - 0.35878I$	0
$b = 0.933297 - 0.166898I$		
$u = 1.081810 - 0.393115I$		
$a = -0.432295 - 0.129104I$	$-8.43281 + 0.35878I$	0
$b = 0.933297 + 0.166898I$		
$u = -0.881392 + 0.750525I$		
$a = 0.214038 - 0.055567I$	$-4.84553 + 13.14190I$	0
$b = -1.280300 + 0.108912I$		
$u = -0.881392 - 0.750525I$		
$a = 0.214038 + 0.055567I$	$-4.84553 - 13.14190I$	0
$b = -1.280300 - 0.108912I$		
$u = 0.219710 + 0.801720I$		
$a = 0.098679 - 0.522747I$	$3.72750 + 0.10143I$	0
$b = 0.892532 + 0.181824I$		
$u = 0.219710 - 0.801720I$		
$a = 0.098679 + 0.522747I$	$3.72750 - 0.10143I$	0
$b = 0.892532 - 0.181824I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.506228 + 1.072760I$ $a = 1.37762 - 2.03261I$ $b = 0.057960 + 1.370180I$	$2.25040 - 7.09751I$	0
$u = 0.506228 - 1.072760I$ $a = 1.37762 + 2.03261I$ $b = 0.057960 - 1.370180I$	$2.25040 + 7.09751I$	0
$u = -0.591028 + 0.544821I$ $a = 0.482732 + 0.701730I$ $b = 1.054950 - 0.834211I$	$-4.85653 + 3.11200I$	0
$u = -0.591028 - 0.544821I$ $a = 0.482732 - 0.701730I$ $b = 1.054950 + 0.834211I$	$-4.85653 - 3.11200I$	0
$u = -0.776279 + 0.927653I$ $a = -0.777082 - 1.046550I$ $b = -0.603480 + 1.200590I$	$4.28088 + 7.59415I$	0
$u = -0.776279 - 0.927653I$ $a = -0.777082 + 1.046550I$ $b = -0.603480 - 1.200590I$	$4.28088 - 7.59415I$	0
$u = -1.158340 + 0.371013I$ $a = 0.597103 - 0.122745I$ $b = 0.094227 - 0.983239I$	$0.73864 + 2.83022I$	0
$u = -1.158340 - 0.371013I$ $a = 0.597103 + 0.122745I$ $b = 0.094227 + 0.983239I$	$0.73864 - 2.83022I$	0
$u = -0.319801 + 0.710569I$ $a = 0.132260 - 0.619108I$ $b = -1.232260 + 0.493503I$	$-1.91124 - 3.32706I$	0
$u = -0.319801 - 0.710569I$ $a = 0.132260 + 0.619108I$ $b = -1.232260 - 0.493503I$	$-1.91124 + 3.32706I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.988091 + 0.723363I$		
$a = 0.183842 + 0.017986I$	$-1.08906 + 2.95891I$	0
$b = 0.478607 - 0.061501I$		
$u = -0.988091 - 0.723363I$		
$a = 0.183842 - 0.017986I$	$-1.08906 - 2.95891I$	0
$b = 0.478607 + 0.061501I$		
$u = 1.234850 + 0.092095I$		
$a = -0.188514 - 0.205299I$	$-2.98414 - 6.67124I$	0
$b = -0.248632 - 1.085570I$		
$u = 1.234850 - 0.092095I$		
$a = -0.188514 + 0.205299I$	$-2.98414 + 6.67124I$	0
$b = -0.248632 + 1.085570I$		
$u = 0.763103 + 0.992115I$		
$a = 0.83868 - 1.25890I$	$8.26844 - 4.66889I$	0
$b = 0.439093 + 1.337560I$		
$u = 0.763103 - 0.992115I$		
$a = 0.83868 + 1.25890I$	$8.26844 + 4.66889I$	0
$b = 0.439093 - 1.337560I$		
$u = 0.690619 + 0.256098I$		
$a = -1.134530 - 0.254755I$	$-0.92039 - 2.54804I$	0
$b = -0.601353 - 0.777995I$		
$u = 0.690619 - 0.256098I$		
$a = -1.134530 + 0.254755I$	$-0.92039 + 2.54804I$	0
$b = -0.601353 + 0.777995I$		
$u = -0.735269$		
$a = -0.0426728$	-1.14530	0
$b = -0.565864$		
$u = -0.709645 + 0.024755I$		
$a = 1.02958 - 1.25535I$	$-5.53049 + 0.84818I$	0
$b = 0.596020 - 0.915779I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.709645 - 0.024755I$ $a = 1.02958 + 1.25535I$ $b = 0.596020 + 0.915779I$	$-5.53049 - 0.84818I$	0
$u = -0.359244 + 1.263320I$ $a = 0.580321 - 1.010880I$ $b = -0.340106 + 0.264669I$	$-3.12866 - 7.48606I$	0
$u = -0.359244 - 1.263320I$ $a = 0.580321 + 1.010880I$ $b = -0.340106 - 0.264669I$	$-3.12866 + 7.48606I$	0
$u = -0.799300 + 1.053190I$ $a = -0.74196 - 1.36055I$ $b = -0.33684 + 1.45904I$	$4.47048 + 1.63148I$	0
$u = -0.799300 - 1.053190I$ $a = -0.74196 + 1.36055I$ $b = -0.33684 - 1.45904I$	$4.47048 - 1.63148I$	0
$u = -0.397807 + 0.532565I$ $a = -0.23162 - 2.56983I$ $b = -0.155695 + 1.056100I$	$2.14947 + 2.63117I$	$-4.00000 - 3.48885I$
$u = -0.397807 - 0.532565I$ $a = -0.23162 + 2.56983I$ $b = -0.155695 - 1.056100I$	$2.14947 - 2.63117I$	$-4.00000 + 3.48885I$
$u = 1.105120 + 0.877439I$ $a = 0.199968 + 0.016509I$ $b = -0.677538 + 0.208812I$	$-6.24761 - 4.45078I$	0
$u = 1.105120 - 0.877439I$ $a = 0.199968 - 0.016509I$ $b = -0.677538 - 0.208812I$	$-6.24761 + 4.45078I$	0
$u = -0.292532 + 0.505444I$ $a = 1.40602 - 0.60186I$ $b = 0.044037 - 1.048900I$	$3.33827 - 2.84247I$	$-1.76881 + 3.33646I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.292532 - 0.505444I$ $a = 1.40602 + 0.60186I$ $b = 0.044037 + 1.048900I$	$3.33827 + 2.84247I$	$-1.76881 - 3.33646I$
$u = -1.08382 + 0.91193I$ $a = -0.300449 - 1.201790I$ $b = -0.222649 + 1.256110I$	$2.75191 + 2.86034I$	0
$u = -1.08382 - 0.91193I$ $a = -0.300449 + 1.201790I$ $b = -0.222649 - 1.256110I$	$2.75191 - 2.86034I$	0
$u = 0.01051 + 1.42451I$ $a = 0.299533 - 1.116610I$ $b = 0.162653 + 0.921564I$	$3.33018 + 1.31474I$	0
$u = 0.01051 - 1.42451I$ $a = 0.299533 + 1.116610I$ $b = 0.162653 - 0.921564I$	$3.33018 - 1.31474I$	0
$u = 0.116652 + 0.558197I$ $a = -2.24939 - 2.20309I$ $b = 0.250939 + 0.785151I$	$-4.36914 - 1.20866I$	$-3.88970 + 4.69115I$
$u = 0.116652 - 0.558197I$ $a = -2.24939 + 2.20309I$ $b = 0.250939 - 0.785151I$	$-4.36914 + 1.20866I$	$-3.88970 - 4.69115I$
$u = 0.71489 + 1.26705I$ $a = 0.437939 - 1.024770I$ $b = 0.032561 + 1.125830I$	$3.47028 + 0.93146I$	0
$u = 0.71489 - 1.26705I$ $a = 0.437939 + 1.024770I$ $b = 0.032561 - 1.125830I$	$3.47028 - 0.93146I$	0
$u = 0.535565 + 0.081022I$ $a = -1.68567 - 1.93268I$ $b = -0.387439 + 0.352998I$	$-5.03890 - 4.06980I$	$-10.98331 - 1.05875I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.535565 - 0.081022I$ $a = -1.68567 + 1.93268I$ $b = -0.387439 - 0.352998I$	$-5.03890 + 4.06980I$	$-10.98331 + 1.05875I$
$u = 0.92278 + 1.13209I$ $a = -0.347640 + 0.920418I$ $b = -0.530799 - 0.800669I$	$-5.44631 - 2.90760I$	0
$u = 0.92278 - 1.13209I$ $a = -0.347640 - 0.920418I$ $b = -0.530799 + 0.800669I$	$-5.44631 + 2.90760I$	0
$u = -0.060516 + 0.532681I$ $a = -0.164411 + 0.444161I$ $b = -1.21016 - 1.05306I$	$2.54178 + 1.17821I$	$11.64009 - 2.24509I$
$u = -0.060516 - 0.532681I$ $a = -0.164411 - 0.444161I$ $b = -1.21016 + 1.05306I$	$2.54178 - 1.17821I$	$11.64009 + 2.24509I$
$u = 0.99166 + 1.11425I$ $a = -0.91295 + 1.42599I$ $b = -0.185960 - 1.394340I$	$0.56601 - 4.83848I$	0
$u = 0.99166 - 1.11425I$ $a = -0.91295 - 1.42599I$ $b = -0.185960 + 1.394340I$	$0.56601 + 4.83848I$	0
$u = -1.07785 + 1.05994I$ $a = 0.462928 + 1.232370I$ $b = 0.61542 - 1.40165I$	$-2.98411 + 12.81440I$	0
$u = -1.07785 - 1.05994I$ $a = 0.462928 - 1.232370I$ $b = 0.61542 + 1.40165I$	$-2.98411 - 12.81440I$	0
$u = 0.311732 + 0.358910I$ $a = 1.26566 - 4.52195I$ $b = 0.287040 + 1.083010I$	$3.53857 - 6.53979I$	$-2.29573 + 10.84804I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.311732 - 0.358910I$		
$a = 1.26566 + 4.52195I$	$3.53857 + 6.53979I$	$-2.29573 - 10.84804I$
$b = 0.287040 - 1.083010I$		
$u = 1.10068 + 1.07688I$		
$a = -0.497997 + 1.166620I$	$2.72605 - 9.15496I$	0
$b = -0.49594 - 1.35858I$		
$u = 1.10068 - 1.07688I$		
$a = -0.497997 - 1.166620I$	$2.72605 + 9.15496I$	0
$b = -0.49594 + 1.35858I$		
$u = -0.019041 + 0.452582I$		
$a = 0.718133 + 1.063210I$	$5.29844 - 2.64181I$	$16.0425 + 10.8617I$
$b = 0.70293 - 1.54683I$		
$u = -0.019041 - 0.452582I$		
$a = 0.718133 - 1.063210I$	$5.29844 + 2.64181I$	$16.0425 - 10.8617I$
$b = 0.70293 + 1.54683I$		
$u = -0.245392 + 0.329056I$		
$a = -0.98087 - 6.33078I$	$-1.91697 + 10.16090I$	$-7.1460 - 13.4440I$
$b = -0.345189 + 1.074550I$		
$u = -0.245392 - 0.329056I$		
$a = -0.98087 + 6.33078I$	$-1.91697 - 10.16090I$	$-7.1460 + 13.4440I$
$b = -0.345189 - 1.074550I$		
$u = -0.208206 + 0.352641I$		
$a = 1.83891 + 0.32050I$	$-0.326714 + 1.261040I$	$-4.47886 - 3.96166I$
$b = 0.149248 + 0.354691I$		
$u = -0.208206 - 0.352641I$		
$a = 1.83891 - 0.32050I$	$-0.326714 - 1.261040I$	$-4.47886 + 3.96166I$
$b = 0.149248 - 0.354691I$		
$u = -0.001597 + 0.406180I$		
$a = -0.45088 + 1.58611I$	$-0.18335 + 5.12037I$	$13.7772 - 4.9372I$
$b = -0.66102 - 1.98194I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.001597 - 0.406180I$ $a = -0.45088 - 1.58611I$ $b = -0.66102 + 1.98194I$	$-0.18335 - 5.12037I$	$13.7772 + 4.9372I$
$u = 0.142368 + 0.376973I$ $a = -2.64476 + 0.71982I$ $b = -0.134828 - 1.375840I$	$6.10118 + 0.21034I$	$4.82953 + 0.51502I$
$u = 0.142368 - 0.376973I$ $a = -2.64476 - 0.71982I$ $b = -0.134828 + 1.375840I$	$6.10118 - 0.21034I$	$4.82953 - 0.51502I$
$u = 0.92096 + 1.31604I$ $a = 0.064604 - 1.199110I$ $b = 0.648507 + 1.063430I$	$-5.58238 - 7.08505I$	0
$u = 0.92096 - 1.31604I$ $a = 0.064604 + 1.199110I$ $b = 0.648507 - 1.063430I$	$-5.58238 + 7.08505I$	0
$u = -1.13004 + 1.14773I$ $a = 0.498632 + 1.050560I$ $b = 0.360295 - 1.201120I$	$1.72436 + 4.88386I$	0
$u = -1.13004 - 1.14773I$ $a = 0.498632 - 1.050560I$ $b = 0.360295 + 1.201120I$	$1.72436 - 4.88386I$	0
$u = -0.98295 + 1.31634I$ $a = -0.520381 - 0.851587I$ $b = 0.219731 + 1.105980I$	$-2.60212 - 4.67238I$	0
$u = -0.98295 - 1.31634I$ $a = -0.520381 + 0.851587I$ $b = 0.219731 - 1.105980I$	$-2.60212 + 4.67238I$	0
$u = -0.47592 + 1.57457I$ $a = -0.200625 - 1.006440I$ $b = -0.313934 + 0.854211I$	$3.46409 + 4.38803I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.47592 - 1.57457I$ $a = -0.200625 + 1.006440I$ $b = -0.313934 - 0.854211I$	$3.46409 - 4.38803I$	0
$u = -1.10913 + 1.22830I$ $a = -0.42349 - 1.37161I$ $b = -0.56727 + 1.43965I$	$-0.0057 + 19.5333I$	0
$u = -1.10913 - 1.22830I$ $a = -0.42349 + 1.37161I$ $b = -0.56727 - 1.43965I$	$-0.0057 - 19.5333I$	0
$u = -0.322870 + 0.079521I$ $a = 4.60389 + 1.60494I$ $b = 0.521329 - 0.712682I$	$-6.14357 + 3.72546I$	$-15.6967 - 1.8148I$
$u = -0.322870 - 0.079521I$ $a = 4.60389 - 1.60494I$ $b = 0.521329 + 0.712682I$	$-6.14357 - 3.72546I$	$-15.6967 + 1.8148I$
$u = -0.101421 + 0.314930I$ $a = 3.77657 + 2.32255I$ $b = 0.03817 - 1.46841I$	$1.15038 + 2.98488I$	$-1.23989 - 2.08887I$
$u = -0.101421 - 0.314930I$ $a = 3.77657 - 2.32255I$ $b = 0.03817 + 1.46841I$	$1.15038 - 2.98488I$	$-1.23989 + 2.08887I$
$u = 0.76399 + 1.51490I$ $a = -0.17722 + 1.73202I$ $b = -0.335847 - 1.204970I$	$-3.13095 - 8.20929I$	0
$u = 0.76399 - 1.51490I$ $a = -0.17722 - 1.73202I$ $b = -0.335847 + 1.204970I$	$-3.13095 + 8.20929I$	0
$u = 1.12979 + 1.26882I$ $a = 0.392036 - 1.293300I$ $b = 0.51917 + 1.38258I$	$5.8399 - 14.8700I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.12979 - 1.26882I$ $a = 0.392036 + 1.293300I$ $b = 0.51917 - 1.38258I$	$5.8399 + 14.8700I$	0
$u = -1.34716 + 1.07030I$ $a = 0.485580 + 1.072570I$ $b = 0.111570 - 1.379870I$	$2.74353 + 5.90452I$	0
$u = -1.34716 - 1.07030I$ $a = 0.485580 - 1.072570I$ $b = 0.111570 + 1.379870I$	$2.74353 - 5.90452I$	0
$u = 1.00526 + 1.41088I$ $a = 0.01130 - 1.49942I$ $b = 0.440065 + 1.245610I$	$-4.97260 - 5.23974I$	0
$u = 1.00526 - 1.41088I$ $a = 0.01130 + 1.49942I$ $b = 0.440065 - 1.245610I$	$-4.97260 + 5.23974I$	0
$u = -1.11452 + 1.35069I$ $a = -0.309636 - 1.220240I$ $b = -0.492999 + 1.279710I$	$4.12884 + 9.22344I$	0
$u = -1.11452 - 1.35069I$ $a = -0.309636 + 1.220240I$ $b = -0.492999 - 1.279710I$	$4.12884 - 9.22344I$	0
$u = -1.11423 + 1.38028I$ $a = 0.43755 + 1.41159I$ $b = 0.210804 - 1.289680I$	$3.11861 + 5.61511I$	0
$u = -1.11423 - 1.38028I$ $a = 0.43755 - 1.41159I$ $b = 0.210804 + 1.289680I$	$3.11861 - 5.61511I$	0
$u = 0.168788 + 0.117962I$ $a = -4.45602 + 3.79259I$ $b = -0.280598 - 0.840440I$	$-0.55056 - 1.50329I$	$-8.82318 + 4.22354I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.168788 - 0.117962I$ $a = -4.45602 - 3.79259I$ $b = -0.280598 + 0.840440I$	$-0.55056 + 1.50329I$	$-8.82318 - 4.22354I$
$u = 1.93305 + 0.50959I$ $a = -0.142191 + 0.902871I$ $b = 0.066677 - 1.257350I$	$5.77816 - 1.65318I$	0
$u = 1.93305 - 0.50959I$ $a = -0.142191 - 0.902871I$ $b = 0.066677 + 1.257350I$	$5.77816 + 1.65318I$	0
$u = -1.06894 + 2.02788I$ $a = 0.327388 + 1.050300I$ $b = 0.013925 - 1.040450I$	$3.88914 + 1.74878I$	0
$u = -1.06894 - 2.02788I$ $a = 0.327388 - 1.050300I$ $b = 0.013925 + 1.040450I$	$3.88914 - 1.74878I$	0
$u = -1.66582 + 1.59423I$ $a = 0.348814 + 0.957220I$ $b = -0.230037 - 1.137420I$	$-0.55295 - 9.90422I$	0
$u = -1.66582 - 1.59423I$ $a = 0.348814 - 0.957220I$ $b = -0.230037 + 1.137420I$	$-0.55295 + 9.90422I$	0
$u = 1.40388 + 2.07476I$ $a = -0.297089 + 1.030670I$ $b = 0.090175 - 1.110300I$	$5.54771 + 4.59569I$	0
$u = 1.40388 - 2.07476I$ $a = -0.297089 - 1.030670I$ $b = 0.090175 + 1.110300I$	$5.54771 - 4.59569I$	0

II.

$$I_2^u = \langle 3.41 \times 10^{59} u^{37} - 4.78 \times 10^{59} u^{36} + \dots + 2.12 \times 10^{60} b + 2.50 \times 10^{60}, 1.12 \times 10^{60} u^{37} + 5.76 \times 10^{59} u^{36} + \dots + 2.12 \times 10^{60} a + 3.00 \times 10^{59}, u^{38} + u^{37} + \dots + u + 1 \rangle$$

(i) Arc colorings

$$\begin{aligned} a_1 &= \begin{pmatrix} 0 \\ u \end{pmatrix} \\ a_9 &= \begin{pmatrix} 1 \\ 0 \end{pmatrix} \\ a_5 &= \begin{pmatrix} -0.527654u^{37} - 0.272040u^{36} + \dots + 2.69562u - 0.141838 \\ -0.160946u^{37} + 0.225777u^{36} + \dots - 3.74177u - 1.18061 \end{pmatrix} \\ a_{10} &= \begin{pmatrix} 1 \\ u^2 \end{pmatrix} \\ a_4 &= \begin{pmatrix} -0.688600u^{37} - 0.0462627u^{36} + \dots - 1.04615u - 1.32245 \\ -0.160946u^{37} + 0.225777u^{36} + \dots - 3.74177u - 1.18061 \end{pmatrix} \\ a_2 &= \begin{pmatrix} -2.70490u^{37} - 1.58675u^{36} + \dots - 2.58789u - 2.51374 \\ -1.06367u^{37} - 0.854375u^{36} + \dots + 1.82410u - 0.789642 \end{pmatrix} \\ a_{11} &= \begin{pmatrix} 1.80241u^{37} + 0.623202u^{36} + \dots + 5.76280u + 0.911275 \\ 0.223824u^{37} + 0.0376423u^{36} + \dots - 0.954155u - 1.76154 \end{pmatrix} \\ a_3 &= \begin{pmatrix} -0.894677u^{37} - 0.628125u^{36} + \dots + 2.74189u - 0.784175 \\ 0.281975u^{37} + 0.316543u^{36} + \dots - 3.15991u - 0.804828 \end{pmatrix} \\ a_8 &= \begin{pmatrix} 0.0958034u^{37} - 0.488043u^{36} + \dots + 1.03707u + 1.30515 \\ 0.693839u^{37} + 0.214017u^{36} + \dots - 0.197944u + 1.30859 \end{pmatrix} \\ a_7 &= \begin{pmatrix} -0.274532u^{37} - 0.751509u^{36} + \dots - 1.60654u - 0.419018 \\ 0.416502u^{37} + 0.416592u^{36} + \dots + 2.41842u + 2.42587 \end{pmatrix} \\ a_{12} &= \begin{pmatrix} -0.607657u^{37} - 0.0389698u^{36} + \dots - 4.43061u - 1.64344 \\ -0.737209u^{37} - 0.936332u^{36} + \dots + 4.58964u + 0.759813 \end{pmatrix} \\ a_6 &= \begin{pmatrix} -1.69112u^{37} - 1.54813u^{36} + \dots - 0.427166u - 2.14299 \\ 0.0531670u^{37} + 0.360339u^{36} + \dots - 6.98830u - 1.20508 \end{pmatrix} \end{aligned}$$

(ii) Obstruction class = 1

(iii) Cusp Shapes = $3.31222u^{37} - 0.0478282u^{36} + \dots - 8.77444u - 13.9498$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{38} - 3u^{37} + \dots + 8u^2 + 1$
c_2	$u^{38} - u^{37} + \dots - 16u^2 + 1$
c_3	$u^{38} + 4u^{36} + \dots + u + 1$
c_4	$u^{38} + u^{37} + \dots - 16u + 1$
c_5, c_6	$u^{38} - 20u^{36} + \dots + 2u + 1$
c_7	$u^{38} + u^{37} + \dots - 16u^2 + 1$
c_8	$u^{38} - u^{37} + \dots + 16u + 1$
c_9	$u^{38} + u^{37} + \dots + u + 1$
c_{10}	$u^{38} - 5u^{37} + \dots - 4u + 53$
c_{11}	$u^{38} - 20u^{36} + \dots - 2u + 1$
c_{12}	$u^{38} + 6u^{36} + \dots - 10u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{38} + 11y^{37} + \dots + 16y + 1$
c_2, c_7	$y^{38} - 23y^{37} + \dots - 32y + 1$
c_3	$y^{38} + 8y^{37} + \dots + 3y + 1$
c_4, c_8	$y^{38} + 35y^{37} + \dots - 78y + 1$
c_5, c_6, c_{11}	$y^{38} - 40y^{37} + \dots + 8y + 1$
c_9	$y^{38} + 17y^{37} + \dots - 3y + 1$
c_{10}	$y^{38} + 9y^{37} + \dots + 52030y + 2809$
c_{12}	$y^{38} + 12y^{37} + \dots - 78y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.581819 + 0.787198I$ $a = -1.90066 - 1.35846I$ $b = -0.233545 + 1.225910I$	$3.84319 + 4.71088I$	$-0.46280 - 6.88160I$
$u = -0.581819 - 0.787198I$ $a = -1.90066 + 1.35846I$ $b = -0.233545 - 1.225910I$	$3.84319 - 4.71088I$	$-0.46280 + 6.88160I$
$u = -0.809020 + 0.529699I$ $a = -0.574982 - 0.508391I$ $b = 1.062970 + 0.368148I$	$-7.65620 + 0.44843I$	$-5.28310 + 6.52923I$
$u = -0.809020 - 0.529699I$ $a = -0.574982 + 0.508391I$ $b = 1.062970 - 0.368148I$	$-7.65620 - 0.44843I$	$-5.28310 - 6.52923I$
$u = -0.770684 + 0.489111I$ $a = 1.209020 - 0.469475I$ $b = -0.1337560 - 0.0453600I$	$-4.73247 + 4.87232I$	$-6.50156 - 6.48883I$
$u = -0.770684 - 0.489111I$ $a = 1.209020 + 0.469475I$ $b = -0.1337560 + 0.0453600I$	$-4.73247 - 4.87232I$	$-6.50156 + 6.48883I$
$u = 0.952857 + 0.579267I$ $a = -0.267959 - 0.396124I$ $b = -0.391639 + 0.059254I$	$-0.87311 - 2.32740I$	$-5.14628 + 1.05771I$
$u = 0.952857 - 0.579267I$ $a = -0.267959 + 0.396124I$ $b = -0.391639 - 0.059254I$	$-0.87311 + 2.32740I$	$-5.14628 - 1.05771I$
$u = -0.168510 + 0.821634I$ $a = 0.450203 + 0.707128I$ $b = 0.440251 - 1.087420I$	$4.80718 - 2.28673I$	$3.50663 + 1.43338I$
$u = -0.168510 - 0.821634I$ $a = 0.450203 - 0.707128I$ $b = 0.440251 + 1.087420I$	$4.80718 + 2.28673I$	$3.50663 - 1.43338I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.429288 + 1.103280I$		
$a = 0.82581 - 1.88992I$	$-1.49530 + 9.25404I$	$-3.65023 - 5.86849I$
$b = -0.295937 + 1.059150I$		
$u = 0.429288 - 1.103280I$		
$a = 0.82581 + 1.88992I$	$-1.49530 - 9.25404I$	$-3.65023 + 5.86849I$
$b = -0.295937 - 1.059150I$		
$u = -0.652127 + 0.477531I$		
$a = -0.116840 + 0.569044I$	$4.84984 - 2.43886I$	$-0.90164 + 3.88333I$
$b = 0.346306 - 1.290060I$		
$u = -0.652127 - 0.477531I$		
$a = -0.116840 - 0.569044I$	$4.84984 + 2.43886I$	$-0.90164 - 3.88333I$
$b = 0.346306 + 1.290060I$		
$u = 0.719715 + 0.342472I$		
$a = -1.044510 - 0.281028I$	$-0.96062 - 2.81911I$	$-6.3302 + 15.4084I$
$b = -0.547744 - 0.636800I$		
$u = 0.719715 - 0.342472I$		
$a = -1.044510 + 0.281028I$	$-0.96062 + 2.81911I$	$-6.3302 - 15.4084I$
$b = -0.547744 + 0.636800I$		
$u = -0.517454 + 0.528654I$		
$a = 1.42791 + 1.11087I$	$-5.71245 + 4.31152I$	$-8.79528 - 9.81076I$
$b = 0.642884 - 0.618003I$		
$u = -0.517454 - 0.528654I$		
$a = 1.42791 - 1.11087I$	$-5.71245 - 4.31152I$	$-8.79528 + 9.81076I$
$b = 0.642884 + 0.618003I$		
$u = 0.677000 + 1.142220I$		
$a = 0.94945 - 1.31823I$	$5.85215 - 5.01077I$	$0. + 4.64122I$
$b = 0.208074 + 1.176800I$		
$u = 0.677000 - 1.142220I$		
$a = 0.94945 + 1.31823I$	$5.85215 + 5.01077I$	$0. - 4.64122I$
$b = 0.208074 - 1.176800I$		

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.659289 + 0.103010I$ $a = 0.67203 - 1.75898I$ $b = 0.539517 - 0.759509I$	$-5.47128 + 1.31809I$	$-10.72815 - 9.07865I$
$u = -0.659289 - 0.103010I$ $a = 0.67203 + 1.75898I$ $b = 0.539517 + 0.759509I$	$-5.47128 - 1.31809I$	$-10.72815 + 9.07865I$
$u = 0.063673 + 1.400840I$ $a = 0.004534 - 1.302700I$ $b = -0.351265 + 1.141000I$	$3.52316 - 0.22029I$	0
$u = 0.063673 - 1.400840I$ $a = 0.004534 + 1.302700I$ $b = -0.351265 - 1.141000I$	$3.52316 + 0.22029I$	0
$u = -1.02673 + 1.00210I$ $a = 0.99000 + 1.28518I$ $b = 0.139998 - 1.382560I$	$0.46013 + 5.82907I$	0
$u = -1.02673 - 1.00210I$ $a = 0.99000 - 1.28518I$ $b = 0.139998 + 1.382560I$	$0.46013 - 5.82907I$	0
$u = 0.004135 + 0.341085I$ $a = -1.75504 - 0.28767I$ $b = -0.799811 - 1.113400I$	$2.15713 + 1.21822I$	$-9.81477 - 2.56503I$
$u = 0.004135 - 0.341085I$ $a = -1.75504 + 0.28767I$ $b = -0.799811 + 1.113400I$	$2.15713 - 1.21822I$	$-9.81477 + 2.56503I$
$u = 0.324169 + 0.054741I$ $a = 1.70793 - 0.82297I$ $b = -0.34703 + 1.77367I$	$-0.51099 - 5.17367I$	$-11.10308 + 8.23111I$
$u = 0.324169 - 0.054741I$ $a = 1.70793 + 0.82297I$ $b = -0.34703 - 1.77367I$	$-0.51099 + 5.17367I$	$-11.10308 - 8.23111I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.05542 + 1.68112I$	$4.76012 - 5.14898I$	0
$a = 0.00445 - 1.48523I$		
$b = 0.224310 + 1.109410I$		
$u = 0.05542 - 1.68112I$	$4.76012 + 5.14898I$	0
$a = 0.00445 + 1.48523I$		
$b = 0.224310 - 1.109410I$		
$u = 1.16532 + 1.27732I$	$3.18408 - 4.85642I$	0
$a = -0.525453 + 1.270450I$		
$b = -0.210300 - 1.303100I$		
$u = 1.16532 - 1.27732I$	$3.18408 + 4.85642I$	0
$a = -0.525453 - 1.270450I$		
$b = -0.210300 + 1.303100I$		
$u = -0.92048 + 1.54996I$	$-4.82260 + 5.63511I$	0
$a = 0.02654 + 1.43190I$		
$b = 0.437495 - 1.189770I$		
$u = -0.92048 - 1.54996I$	$-4.82260 - 5.63511I$	0
$a = 0.02654 - 1.43190I$		
$b = 0.437495 + 1.189770I$		
$u = 1.21454 + 1.70439I$	$3.73283 - 2.84759I$	0
$a = -0.082444 + 1.057460I$		
$b = -0.230777 - 1.114510I$		
$u = 1.21454 - 1.70439I$	$3.73283 + 2.84759I$	0
$a = -0.082444 - 1.057460I$		
$b = -0.230777 + 1.114510I$		

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{38} - 3u^{37} + \dots + 8u^2 + 1)(u^{149} - 10u^{148} + \dots + 347212u - 23201)$
c_2	$(u^{38} - u^{37} + \dots - 16u^2 + 1)(u^{149} + 2u^{148} + \dots - 24326u + 7187)$
c_3	$(u^{38} + 4u^{36} + \dots + u + 1)(u^{149} + u^{148} + \dots + u + 1)$
c_4	$(u^{38} + u^{37} + \dots - 16u + 1)(u^{149} + 4u^{148} + \dots + 163388u + 15389)$
c_5, c_6	$(u^{38} - 20u^{36} + \dots + 2u + 1)(u^{149} + u^{148} + \dots - 4044u + 667)$
c_7	$(u^{38} + u^{37} + \dots - 16u^2 + 1)(u^{149} + 2u^{148} + \dots - 24326u + 7187)$
c_8	$(u^{38} - u^{37} + \dots + 16u + 1)(u^{149} + 4u^{148} + \dots + 163388u + 15389)$
c_9	$(u^{38} + u^{37} + \dots + u + 1)(u^{149} + 4u^{148} + \dots + 73u + 19)$
c_{10}	$(u^{38} - 5u^{37} + \dots - 4u + 53)$ $\cdot (u^{149} + 4u^{148} + \dots - 116639488u + 34307711)$
c_{11}	$(u^{38} - 20u^{36} + \dots - 2u + 1)(u^{149} + u^{148} + \dots - 4044u + 667)$
c_{12}	$(u^{38} + 6u^{36} + \dots - 10u + 1)(u^{149} + u^{148} + \dots - 3432u + 23659)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{38} + 11y^{37} + \dots + 16y + 1)$ $\cdot (y^{149} + 34y^{148} + \dots - 32477715860y - 538286401)$
c_2, c_7	$(y^{38} - 23y^{37} + \dots - 32y + 1)$ $\cdot (y^{149} - 80y^{148} + \dots + 2042752080y - 51652969)$
c_3	$(y^{38} + 8y^{37} + \dots + 3y + 1)(y^{149} + 15y^{148} + \dots - 27y - 1)$
c_4, c_8	$(y^{38} + 35y^{37} + \dots - 78y + 1)$ $\cdot (y^{149} + 110y^{148} + \dots - 12741844090y - 236821321)$
c_5, c_6, c_{11}	$(y^{38} - 40y^{37} + \dots + 8y + 1)$ $\cdot (y^{149} - 141y^{148} + \dots - 16078272y - 444889)$
c_9	$(y^{38} + 17y^{37} + \dots - 3y + 1)(y^{149} + 28y^{148} + \dots - 10593y - 361)$
c_{10}	$(y^{38} + 9y^{37} + \dots + 52030y + 2809)$ $\cdot (y^{149} - 12y^{148} + \dots + 25050115881431194y - 1177019034059521)$
c_{12}	$(y^{38} + 12y^{37} + \dots - 78y + 1)$ $\cdot (y^{149} + 3y^{148} + \dots + 13696191542y - 559748281)$