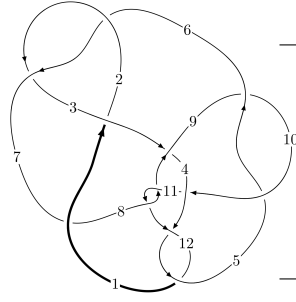
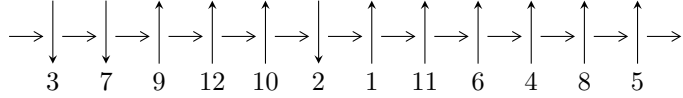


12a₀₆₀₉ (K12a₀₆₀₉)



A knot diagram¹

Linearized knot diagram



Solving Sequence

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

Ideals for irreducible components² of X_{par}

$$I_1^u = \langle -7.11550 \times 10^{270} u^{147} + 2.34975 \times 10^{270} u^{146} + \dots + 7.83329 \times 10^{269} b + 1.17176 \times 10^{272}, \\ 2.42818 \times 10^{272} u^{147} - 8.26249 \times 10^{271} u^{146} + \dots + 8.61662 \times 10^{270} a - 3.99086 \times 10^{273}, \\ u^{148} - u^{147} + \dots - 28u + 11 \rangle$$

$$I_2^u = \langle u^{36} - 6u^{35} + \dots + b + 5, -28u^{36} + 22u^{35} + \dots + a - 30, u^{37} - 10u^{35} + \dots - 7u^2 + 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 185 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.

$$\text{I. } I_1^u = \langle -7.12 \times 10^{270} u^{147} + 2.35 \times 10^{270} u^{146} + \dots + 7.83 \times 10^{269} b + 1.17 \times 10^{272}, 2.43 \times 10^{272} u^{147} - 8.26 \times 10^{271} u^{146} + \dots + 8.62 \times 10^{270} a - 3.99 \times 10^{273}, u^{148} - u^{147} + \dots - 28u + 11 \rangle$$

(i) Arc colorings

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

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

$$a_7 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

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

$$a_9 = \begin{pmatrix} -28.1802u^{147} + 9.58902u^{146} + \dots - 500.278u + 463.158 \\ 9.08367u^{147} - 2.99969u^{146} + \dots + 149.153u - 149.588 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 28.9466u^{147} - 7.64764u^{146} + \dots + 511.326u - 413.056 \\ 1.87191u^{147} + 0.474465u^{146} + \dots + 37.3094u - 3.29970 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -19.0965u^{147} + 6.58932u^{146} + \dots - 351.125u + 313.570 \\ 9.08367u^{147} - 2.99969u^{146} + \dots + 149.153u - 149.588 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -1.63584u^{147} + 2.74753u^{146} + \dots - 9.74895u + 59.5619 \\ 9.74060u^{147} - 3.27722u^{146} + \dots + 170.925u - 160.730 \end{pmatrix}$$

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

$$a_5 = \begin{pmatrix} 19.2042u^{147} - 3.52906u^{146} + \dots + 360.206u - 255.473 \\ -15.6776u^{147} + 5.49972u^{146} + \dots - 272.591u + 266.188 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} u^6 - u^4 + 1 \\ u^8 - 2u^6 + 2u^4 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -4.32037u^{147} + 0.0334826u^{146} + \dots - 91.4009u + 53.4061 \\ -10.0898u^{147} + 3.69835u^{146} + \dots - 173.459u + 173.267 \end{pmatrix}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes = $170.660u^{147} - 53.4676u^{146} + \dots + 2947.57u - 2741.52$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{148} + 77u^{147} + \dots + 2082u + 121$
c_2, c_6	$u^{148} - u^{147} + \dots - 28u + 11$
c_3	$u^{148} - u^{147} + \dots - 437764162u + 31663951$
c_4, c_{12}	$u^{148} - 41u^{146} + \dots - 1867u - 457$
c_5, c_9	$u^{148} - 2u^{147} + \dots - 20681u - 4913$
c_7	$u^{148} - 3u^{147} + \dots - 52130042u + 4546267$
c_8, c_{11}	$u^{148} + 6u^{147} + \dots + 147861u + 10043$
c_{10}	$u^{148} + u^{147} + \dots - 171710u - 36269$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{148} - 5y^{147} + \dots - 428602y + 14641$
c_2, c_6	$y^{148} - 77y^{147} + \dots - 2082y + 121$
c_3	$y^{148} + 59y^{147} + \dots - 106286132462952552y + 1002605792930401$
c_4, c_{12}	$y^{148} - 82y^{147} + \dots - 21312345y + 208849$
c_5, c_9	$y^{148} + 98y^{147} + \dots + 311191787y + 24137569$
c_7	$y^{148} + 87y^{147} + \dots + 203578457803668y + 20668543635289$
c_8, c_{11}	$y^{148} + 90y^{147} + \dots + 2708328479y + 100861849$
c_{10}	$y^{148} + 23y^{147} + \dots - 9866857228y + 1315440361$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.801882 + 0.564876I$ $a = -1.98309 - 1.20150I$ $b = 0.201767 + 1.107530I$	$-4.17373 + 5.78306I$	0
$u = -0.801882 - 0.564876I$ $a = -1.98309 + 1.20150I$ $b = 0.201767 - 1.107530I$	$-4.17373 - 5.78306I$	0
$u = 0.753591 + 0.626874I$ $a = 0.185539 - 1.185390I$ $b = 0.497327 + 0.904516I$	$2.94244 + 1.46559I$	0
$u = 0.753591 - 0.626874I$ $a = 0.185539 + 1.185390I$ $b = 0.497327 - 0.904516I$	$2.94244 - 1.46559I$	0
$u = 0.819922 + 0.622130I$ $a = 1.49093 - 0.46144I$ $b = -0.591941 + 1.046700I$	$2.73613 - 6.32545I$	0
$u = 0.819922 - 0.622130I$ $a = 1.49093 + 0.46144I$ $b = -0.591941 - 1.046700I$	$2.73613 + 6.32545I$	0
$u = 0.949221 + 0.199178I$ $a = -1.89330 - 0.09556I$ $b = 0.727956 - 0.713865I$	$-3.20129 - 5.06040I$	0
$u = 0.949221 - 0.199178I$ $a = -1.89330 + 0.09556I$ $b = 0.727956 + 0.713865I$	$-3.20129 + 5.06040I$	0
$u = -0.965652 + 0.381043I$ $a = -0.082316 + 0.291581I$ $b = 0.278548 - 0.430341I$	$-1.50408 + 1.47661I$	0
$u = -0.965652 - 0.381043I$ $a = -0.082316 - 0.291581I$ $b = 0.278548 + 0.430341I$	$-1.50408 - 1.47661I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.032450 + 0.117025I$ $a = -0.356571 - 0.269265I$ $b = 0.461349 + 0.517094I$	$-3.46852 - 0.71657I$	0
$u = -1.032450 - 0.117025I$ $a = -0.356571 + 0.269265I$ $b = 0.461349 - 0.517094I$	$-3.46852 + 0.71657I$	0
$u = -0.722106 + 0.626635I$ $a = -1.101530 + 0.062706I$ $b = 0.826797 - 0.355727I$	$1.99222 + 6.26430I$	0
$u = -0.722106 - 0.626635I$ $a = -1.101530 - 0.062706I$ $b = 0.826797 + 0.355727I$	$1.99222 - 6.26430I$	0
$u = -0.918255 + 0.497223I$ $a = -1.42108 + 1.16642I$ $b = 0.861920 + 0.742199I$	$3.60069 + 3.57734I$	0
$u = -0.918255 - 0.497223I$ $a = -1.42108 - 1.16642I$ $b = 0.861920 - 0.742199I$	$3.60069 - 3.57734I$	0
$u = 0.950293 + 0.434823I$ $a = -1.34910 - 0.73463I$ $b = 0.557261 - 0.168149I$	$-0.39596 - 3.88277I$	0
$u = 0.950293 - 0.434823I$ $a = -1.34910 + 0.73463I$ $b = 0.557261 + 0.168149I$	$-0.39596 + 3.88277I$	0
$u = -0.448329 + 0.840026I$ $a = 0.421644 - 0.849882I$ $b = -0.194488 + 1.268240I$	$-2.82616 - 2.12943I$	0
$u = -0.448329 - 0.840026I$ $a = 0.421644 + 0.849882I$ $b = -0.194488 - 1.268240I$	$-2.82616 + 2.12943I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.333726 + 1.007330I$ $a = -0.120235 + 0.741241I$ $b = 0.095350 - 1.282620I$	$-3.75918 - 2.82637I$	0
$u = -0.333726 - 1.007330I$ $a = -0.120235 - 0.741241I$ $b = 0.095350 + 1.282620I$	$-3.75918 + 2.82637I$	0
$u = -0.859504 + 0.623047I$ $a = 1.11434 - 0.94865I$ $b = -0.602274 - 0.505888I$	$1.60311 - 1.40810I$	0
$u = -0.859504 - 0.623047I$ $a = 1.11434 + 0.94865I$ $b = -0.602274 + 0.505888I$	$1.60311 + 1.40810I$	0
$u = 0.115334 + 1.057600I$ $a = -0.279424 - 0.411326I$ $b = 0.031526 + 1.026900I$	$-4.73792 + 0.18945I$	0
$u = 0.115334 - 1.057600I$ $a = -0.279424 + 0.411326I$ $b = 0.031526 - 1.026900I$	$-4.73792 - 0.18945I$	0
$u = 0.247947 + 0.901431I$ $a = -1.116440 - 0.780764I$ $b = 0.57458 + 1.36111I$	$-4.3204 + 13.9557I$	0
$u = 0.247947 - 0.901431I$ $a = -1.116440 + 0.780764I$ $b = 0.57458 - 1.36111I$	$-4.3204 - 13.9557I$	0
$u = -0.724944 + 0.522800I$ $a = 1.18389 + 0.92493I$ $b = -0.176138 - 0.961064I$	$-1.19364 + 2.08514I$	0
$u = -0.724944 - 0.522800I$ $a = 1.18389 - 0.92493I$ $b = -0.176138 + 0.961064I$	$-1.19364 - 2.08514I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.759102 + 0.461625I$ $a = -0.32697 - 1.90410I$ $b = 0.047807 + 1.073240I$	$-4.01726 - 1.52458I$	0
$u = -0.759102 - 0.461625I$ $a = -0.32697 + 1.90410I$ $b = 0.047807 - 1.073240I$	$-4.01726 + 1.52458I$	0
$u = -0.996847 + 0.518156I$ $a = -0.515323 + 0.715296I$ $b = 0.575549 - 0.924658I$	$-1.260890 + 0.226294I$	0
$u = -0.996847 - 0.518156I$ $a = -0.515323 - 0.715296I$ $b = 0.575549 + 0.924658I$	$-1.260890 - 0.226294I$	0
$u = -1.115870 + 0.152069I$ $a = -0.241236 - 0.379829I$ $b = -0.051143 - 1.079750I$	$-2.92928 + 2.44675I$	0
$u = -1.115870 - 0.152069I$ $a = -0.241236 + 0.379829I$ $b = -0.051143 + 1.079750I$	$-2.92928 - 2.44675I$	0
$u = 1.083390 + 0.374604I$ $a = 0.677527 + 0.958052I$ $b = 0.18251 + 1.54932I$	$-6.85236 + 0.13574I$	0
$u = 1.083390 - 0.374604I$ $a = 0.677527 - 0.958052I$ $b = 0.18251 - 1.54932I$	$-6.85236 - 0.13574I$	0
$u = 0.204334 + 0.826121I$ $a = 1.124900 + 0.715403I$ $b = -0.61938 - 1.35395I$	$-0.51756 + 7.81284I$	0
$u = 0.204334 - 0.826121I$ $a = 1.124900 - 0.715403I$ $b = -0.61938 + 1.35395I$	$-0.51756 - 7.81284I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.113590 + 0.291888I$ $a = 0.293297 + 1.021440I$ $b = 0.159837 + 1.392530I$	$-7.03383 + 0.08971I$	0
$u = 1.113590 - 0.291888I$ $a = 0.293297 - 1.021440I$ $b = 0.159837 - 1.392530I$	$-7.03383 - 0.08971I$	0
$u = 0.432270 + 0.720324I$ $a = 0.611532 - 1.000840I$ $b = -0.286130 + 0.372349I$	$1.19324 + 2.46533I$	0
$u = 0.432270 - 0.720324I$ $a = 0.611532 + 1.000840I$ $b = -0.286130 - 0.372349I$	$1.19324 - 2.46533I$	0
$u = -0.210776 + 0.813138I$ $a = -1.45325 + 0.79425I$ $b = 0.439344 - 1.255070I$	$-7.18334 - 7.02861I$	0
$u = -0.210776 - 0.813138I$ $a = -1.45325 - 0.79425I$ $b = 0.439344 + 1.255070I$	$-7.18334 + 7.02861I$	0
$u = 0.781945 + 0.857312I$ $a = -0.101971 + 0.902087I$ $b = -0.312973 - 1.056760I$	$-0.06242 + 4.94279I$	0
$u = 0.781945 - 0.857312I$ $a = -0.101971 - 0.902087I$ $b = -0.312973 + 1.056760I$	$-0.06242 - 4.94279I$	0
$u = 0.026933 + 0.836326I$ $a = -1.049010 - 0.576149I$ $b = 0.625028 + 1.186720I$	$-6.07873 + 2.17643I$	0
$u = 0.026933 - 0.836326I$ $a = -1.049010 + 0.576149I$ $b = 0.625028 - 1.186720I$	$-6.07873 - 2.17643I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.089850 + 0.408220I$		
$a = 0.637757 - 0.676371I$	$-1.29393 + 0.96563I$	0
$b = -0.700513 + 0.898650I$		
$u = -1.089850 - 0.408220I$		
$a = 0.637757 + 0.676371I$	$-1.29393 - 0.96563I$	0
$b = -0.700513 - 0.898650I$		
$u = 1.100130 + 0.385626I$		
$a = 1.40067 + 2.02165I$	$-3.99476 + 2.05581I$	0
$b = 0.032025 + 1.022240I$		
$u = 1.100130 - 0.385626I$		
$a = 1.40067 - 2.02165I$	$-3.99476 - 2.05581I$	0
$b = 0.032025 - 1.022240I$		
$u = 0.875901 + 0.772682I$		
$a = -1.274370 + 0.495646I$	$-0.39615 - 10.89840I$	0
$b = 0.439542 - 1.121260I$		
$u = 0.875901 - 0.772682I$		
$a = -1.274370 - 0.495646I$	$-0.39615 + 10.89840I$	0
$b = 0.439542 + 1.121260I$		
$u = 0.492360 + 0.668072I$		
$a = 1.000830 + 0.736488I$	$1.53421 - 0.23768I$	0
$b = -0.436862 - 0.283519I$		
$u = 0.492360 - 0.668072I$		
$a = 1.000830 - 0.736488I$	$1.53421 + 0.23768I$	0
$b = -0.436862 + 0.283519I$		
$u = 1.047440 + 0.555613I$		
$a = -1.087820 - 0.185331I$	$-0.11027 - 4.51657I$	0
$b = 0.478821 - 0.312236I$		
$u = 1.047440 - 0.555613I$		
$a = -1.087820 + 0.185331I$	$-0.11027 + 4.51657I$	0
$b = 0.478821 + 0.312236I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.433187 + 0.680149I$	$1.67106 - 0.48268I$	0
$a = 0.528844 + 1.295920I$		
$b = 0.022821 - 0.691902I$		
$u = 0.433187 - 0.680149I$	$1.67106 + 0.48268I$	0
$a = 0.528844 - 1.295920I$		
$b = 0.022821 + 0.691902I$		
$u = -0.240264 + 0.766217I$	$-0.25443 - 7.84410I$	0
$a = -1.68880 + 0.13667I$		
$b = 1.163530 + 0.077343I$		
$u = -0.240264 - 0.766217I$	$-0.25443 + 7.84410I$	0
$a = -1.68880 - 0.13667I$		
$b = 1.163530 - 0.077343I$		
$u = 1.129290 + 0.397204I$	$-0.28445 - 2.28003I$	0
$a = -0.59756 - 1.42716I$		
$b = 1.333640 - 0.128607I$		
$u = 1.129290 - 0.397204I$	$-0.28445 + 2.28003I$	0
$a = -0.59756 + 1.42716I$		
$b = 1.333640 + 0.128607I$		
$u = -0.630802 + 0.496059I$	$4.44277 + 0.54060I$	0
$a = 1.212270 - 0.453506I$		
$b = -1.040690 + 0.562959I$		
$u = -0.630802 - 0.496059I$	$4.44277 - 0.54060I$	0
$a = 1.212270 + 0.453506I$		
$b = -1.040690 - 0.562959I$		
$u = 1.158480 + 0.321521I$	$-4.43528 + 4.50982I$	0
$a = 0.330875 + 0.959728I$		
$b = -1.147530 - 0.154773I$		
$u = 1.158480 - 0.321521I$	$-4.43528 - 4.50982I$	0
$a = 0.330875 - 0.959728I$		
$b = -1.147530 + 0.154773I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.059780 + 0.571412I$ $a = -1.35632 + 0.45880I$ $b = 0.170067 - 0.674015I$	$-0.13946 - 4.36646I$	0
$u = 1.059780 - 0.571412I$ $a = -1.35632 - 0.45880I$ $b = 0.170067 + 0.674015I$	$-0.13946 + 4.36646I$	0
$u = 1.106090 + 0.508945I$ $a = 1.49832 + 0.02977I$ $b = -0.719961 + 0.618121I$	$-0.54021 - 6.34086I$	0
$u = 1.106090 - 0.508945I$ $a = 1.49832 - 0.02977I$ $b = -0.719961 - 0.618121I$	$-0.54021 + 6.34086I$	0
$u = -1.136940 + 0.443245I$ $a = 0.62455 - 1.53720I$ $b = -0.152187 - 1.152130I$	$-2.37651 + 5.08383I$	0
$u = -1.136940 - 0.443245I$ $a = 0.62455 + 1.53720I$ $b = -0.152187 + 1.152130I$	$-2.37651 - 5.08383I$	0
$u = 1.077500 + 0.580475I$ $a = 0.184332 - 1.015030I$ $b = 0.221785 + 0.414699I$	$-0.70142 - 7.44159I$	0
$u = 1.077500 - 0.580475I$ $a = 0.184332 + 1.015030I$ $b = 0.221785 - 0.414699I$	$-0.70142 + 7.44159I$	0
$u = -1.117770 + 0.510399I$ $a = -1.58452 + 1.63949I$ $b = 0.230218 + 1.150580I$	$-3.07745 + 9.56188I$	0
$u = -1.117770 - 0.510399I$ $a = -1.58452 - 1.63949I$ $b = 0.230218 - 1.150580I$	$-3.07745 - 9.56188I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.142330 + 0.454417I$ $a = -1.69292 - 1.04413I$ $b = 0.056090 - 0.996161I$	$-2.28746 - 2.85100I$	0
$u = 1.142330 - 0.454417I$ $a = -1.69292 + 1.04413I$ $b = 0.056090 + 0.996161I$	$-2.28746 + 2.85100I$	0
$u = 1.145310 + 0.447419I$ $a = -0.768700 - 0.149089I$ $b = -0.45578 - 1.63998I$	$-8.58012 - 5.99056I$	0
$u = 1.145310 - 0.447419I$ $a = -0.768700 + 0.149089I$ $b = -0.45578 + 1.63998I$	$-8.58012 + 5.99056I$	0
$u = -1.151020 + 0.451397I$ $a = 2.00793 - 0.77488I$ $b = -0.59356 - 1.46220I$	$-8.54612 + 2.06131I$	0
$u = -1.151020 - 0.451397I$ $a = 2.00793 + 0.77488I$ $b = -0.59356 + 1.46220I$	$-8.54612 - 2.06131I$	0
$u = 0.761864$ $a = 1.98239$ $b = 0.218074$	1.42241	5.79160
$u = -1.138650 + 0.496957I$ $a = -0.330158 + 1.160040I$ $b = 1.41673 - 0.30344I$	$0.43905 + 5.57916I$	0
$u = -1.138650 - 0.496957I$ $a = -0.330158 - 1.160040I$ $b = 1.41673 + 0.30344I$	$0.43905 - 5.57916I$	0
$u = -1.172170 + 0.413704I$ $a = 0.444061 - 0.438419I$ $b = -0.896065 + 0.153269I$	$-6.88361 + 1.34143I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.172170 - 0.413704I$ $a = 0.444061 + 0.438419I$ $b = -0.896065 - 0.153269I$	$-6.88361 - 1.34143I$	0
$u = -0.524665 + 0.541827I$ $a = 2.43851 + 0.12852I$ $b = -0.494509 - 0.942321I$	$0.11534 + 4.09815I$	$6.00000 - 7.12333I$
$u = -0.524665 - 0.541827I$ $a = 2.43851 - 0.12852I$ $b = -0.494509 + 0.942321I$	$0.11534 - 4.09815I$	$6.00000 + 7.12333I$
$u = -1.136170 + 0.518437I$ $a = -2.10631 + 0.65979I$ $b = 0.42174 + 1.36917I$	$-5.67172 + 7.75931I$	0
$u = -1.136170 - 0.518437I$ $a = -2.10631 - 0.65979I$ $b = 0.42174 - 1.36917I$	$-5.67172 - 7.75931I$	0
$u = 0.740640 + 0.107202I$ $a = -3.37308 - 0.25178I$ $b = 0.015655 + 0.554283I$	$-1.91615 - 4.38338I$	$1.49561 + 1.53528I$
$u = 0.740640 - 0.107202I$ $a = -3.37308 + 0.25178I$ $b = 0.015655 - 0.554283I$	$-1.91615 + 4.38338I$	$1.49561 - 1.53528I$
$u = -0.242014 + 0.707472I$ $a = 1.15107 - 0.82698I$ $b = -0.323365 + 1.289570I$	$-3.08762 - 3.10115I$	$4.48962 + 2.18486I$
$u = -0.242014 - 0.707472I$ $a = 1.15107 + 0.82698I$ $b = -0.323365 - 1.289570I$	$-3.08762 + 3.10115I$	$4.48962 - 2.18486I$
$u = 1.213900 + 0.322446I$ $a = 0.048458 - 0.542706I$ $b = -0.406134 - 1.353640I$	$-11.57340 + 3.34011I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.213900 - 0.322446I$ $a = 0.048458 + 0.542706I$ $b = -0.406134 + 1.353640I$	$-11.57340 - 3.34011I$	0
$u = 1.169180 + 0.470625I$ $a = 0.745459 + 0.975429I$ $b = -0.838286 - 0.086501I$	$-6.48682 - 7.03755I$	0
$u = 1.169180 - 0.470625I$ $a = 0.745459 - 0.975429I$ $b = -0.838286 + 0.086501I$	$-6.48682 + 7.03755I$	0
$u = -1.219920 + 0.328287I$ $a = 0.493037 - 0.520521I$ $b = 0.50711 - 1.40110I$	$-4.92688 - 4.04995I$	0
$u = -1.219920 - 0.328287I$ $a = 0.493037 + 0.520521I$ $b = 0.50711 + 1.40110I$	$-4.92688 + 4.04995I$	0
$u = -1.122330 + 0.591886I$ $a = -1.82644 + 0.36240I$ $b = 0.262115 + 1.337110I$	$-4.92956 + 7.44417I$	0
$u = -1.122330 - 0.591886I$ $a = -1.82644 - 0.36240I$ $b = 0.262115 - 1.337110I$	$-4.92956 - 7.44417I$	0
$u = 0.067798 + 0.726970I$ $a = -1.44135 + 0.31358I$ $b = 0.751232 + 0.054484I$	$-3.33724 + 2.64401I$	$4.17021 - 2.51461I$
$u = 0.067798 - 0.726970I$ $a = -1.44135 - 0.31358I$ $b = 0.751232 - 0.054484I$	$-3.33724 - 2.64401I$	$4.17021 + 2.51461I$
$u = -1.157500 + 0.536981I$ $a = 0.716087 - 1.064760I$ $b = -1.290310 + 0.071616I$	$-2.94521 + 12.72790I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.157500 - 0.536981I$ $a = 0.716087 + 1.064760I$ $b = -1.290310 - 0.071616I$	$-2.94521 - 12.72790I$	0
$u = 1.276300 + 0.174637I$ $a = -0.332097 - 0.725962I$ $b = 0.044430 - 1.387700I$	$-9.62155 - 0.77584I$	0
$u = 1.276300 - 0.174637I$ $a = -0.332097 + 0.725962I$ $b = 0.044430 + 1.387700I$	$-9.62155 + 0.77584I$	0
$u = -1.178100 + 0.541918I$ $a = 2.15590 - 0.59533I$ $b = -0.508755 - 1.264260I$	$-10.0408 + 12.0354I$	0
$u = -1.178100 - 0.541918I$ $a = 2.15590 + 0.59533I$ $b = -0.508755 + 1.264260I$	$-10.0408 - 12.0354I$	0
$u = 1.185720 + 0.541795I$ $a = -1.87506 - 0.85931I$ $b = 0.66336 - 1.41754I$	$-3.42992 - 12.85340I$	0
$u = 1.185720 - 0.541795I$ $a = -1.87506 + 0.85931I$ $b = 0.66336 + 1.41754I$	$-3.42992 + 12.85340I$	0
$u = 0.695320$ $a = 2.47142$ $b = -1.15814$	2.41384	-14.1360
$u = 1.221690 + 0.472820I$ $a = 1.47822 + 0.95527I$ $b = -0.697374 + 1.219010I$	$-9.63551 - 6.85706I$	0
$u = 1.221690 - 0.472820I$ $a = 1.47822 - 0.95527I$ $b = -0.697374 - 1.219010I$	$-9.63551 + 6.85706I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.281430 + 0.273869I$ $a = -0.178770 + 0.518702I$ $b = -0.47965 + 1.39577I$	$-9.34194 - 10.08950I$	0
$u = -1.281430 - 0.273869I$ $a = -0.178770 - 0.518702I$ $b = -0.47965 - 1.39577I$	$-9.34194 + 10.08950I$	0
$u = -1.236250 + 0.440992I$ $a = -0.473911 + 0.065980I$ $b = -0.579215 + 1.255340I$	$-9.87580 + 2.35380I$	0
$u = -1.236250 - 0.440992I$ $a = -0.473911 - 0.065980I$ $b = -0.579215 - 1.255340I$	$-9.87580 - 2.35380I$	0
$u = -0.266229 + 0.615904I$ $a = 1.08528 + 0.97445I$ $b = -0.274587 + 1.028270I$	$-0.65463 - 5.10691I$	$5.77736 + 7.52073I$
$u = -0.266229 - 0.615904I$ $a = 1.08528 - 0.97445I$ $b = -0.274587 - 1.028270I$	$-0.65463 + 5.10691I$	$5.77736 - 7.52073I$
$u = -0.186098 + 0.644196I$ $a = 1.70791 - 0.01558I$ $b = -1.285140 - 0.301029I$	$3.12787 - 1.15295I$	$5.18234 + 6.54015I$
$u = -0.186098 - 0.644196I$ $a = 1.70791 + 0.01558I$ $b = -1.285140 + 0.301029I$	$3.12787 + 1.15295I$	$5.18234 - 6.54015I$
$u = 1.200520 + 0.578049I$ $a = 1.92727 + 0.67817I$ $b = -0.61315 + 1.40679I$	$-7.1990 - 19.3509I$	0
$u = 1.200520 - 0.578049I$ $a = 1.92727 - 0.67817I$ $b = -0.61315 - 1.40679I$	$-7.1990 + 19.3509I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.341069 + 0.567524I$ $a = -0.99655 - 2.03848I$ $b = 0.500952 + 0.659786I$	$1.70324 + 1.95713I$	$7.50961 - 4.73400I$
$u = 0.341069 - 0.567524I$ $a = -0.99655 + 2.03848I$ $b = 0.500952 - 0.659786I$	$1.70324 - 1.95713I$	$7.50961 + 4.73400I$
$u = 0.624597 + 0.171495I$ $a = -0.267183 + 0.747969I$ $b = 0.08389 + 1.57642I$	$-5.02082 - 2.85082I$	$9.55604 + 4.35953I$
$u = 0.624597 - 0.171495I$ $a = -0.267183 - 0.747969I$ $b = 0.08389 - 1.57642I$	$-5.02082 + 2.85082I$	$9.55604 - 4.35953I$
$u = -0.025547 + 0.628573I$ $a = -1.39066 + 1.08240I$ $b = 0.41101 - 1.46586I$	$-5.47477 + 2.01722I$	$2.82900 - 3.32773I$
$u = -0.025547 - 0.628573I$ $a = -1.39066 - 1.08240I$ $b = 0.41101 + 1.46586I$	$-5.47477 - 2.01722I$	$2.82900 + 3.32773I$
$u = -1.225420 + 0.615330I$ $a = 1.268670 - 0.239357I$ $b = -0.184236 - 1.351230I$	$-6.59084 + 8.69863I$	0
$u = -1.225420 - 0.615330I$ $a = 1.268670 + 0.239357I$ $b = -0.184236 + 1.351230I$	$-6.59084 - 8.69863I$	0
$u = 0.045061 + 0.611973I$ $a = 0.913009 - 0.474315I$ $b = 0.157742 - 0.944384I$	$0.697494 - 1.209320I$	$7.98851 + 0.16732I$
$u = 0.045061 - 0.611973I$ $a = 0.913009 + 0.474315I$ $b = 0.157742 + 0.944384I$	$0.697494 + 1.209320I$	$7.98851 - 0.16732I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.289200 + 0.524690I$		
$a = 1.063760 + 0.527459I$	$-8.51204 - 5.76595I$	0
$b = -0.168309 + 0.988972I$		
$u = 1.289200 - 0.524690I$		
$a = 1.063760 - 0.527459I$	$-8.51204 + 5.76595I$	0
$b = -0.168309 - 0.988972I$		
$u = -1.358170 + 0.336939I$		
$a = -0.236890 + 0.470264I$	$-9.80541 + 4.71923I$	0
$b = 0.013099 + 1.172730I$		
$u = -1.358170 - 0.336939I$		
$a = -0.236890 - 0.470264I$	$-9.80541 - 4.71923I$	0
$b = 0.013099 - 1.172730I$		
$u = 0.450936 + 0.386173I$		
$a = 1.47823 + 0.11520I$	$0.954703 + 0.201112I$	$11.22068 - 1.70554I$
$b = -0.417145 - 0.041194I$		
$u = 0.450936 - 0.386173I$		
$a = 1.47823 - 0.11520I$	$0.954703 - 0.201112I$	$11.22068 + 1.70554I$
$b = -0.417145 + 0.041194I$		
$u = -0.575019 + 0.118532I$		
$a = -2.87421 + 2.06512I$	$0.87032 + 1.96199I$	$2.59548 + 2.16054I$
$b = 0.465783 + 0.998533I$		
$u = -0.575019 - 0.118532I$		
$a = -2.87421 - 2.06512I$	$0.87032 - 1.96199I$	$2.59548 - 2.16054I$
$b = 0.465783 - 0.998533I$		

$$\text{II. } I_2^u = \langle u^{36} - 6u^{35} + \dots + b + 5, -28u^{36} + 22u^{35} + \dots + a - 30, u^{37} - 10u^{35} + \dots - 7u^2 + 1 \rangle$$

(i) Arc colorings

$$\begin{aligned} a_2 &= \begin{pmatrix} 0 \\ u \end{pmatrix} \\ a_6 &= \begin{pmatrix} 1 \\ 0 \end{pmatrix} \\ a_7 &= \begin{pmatrix} 1 \\ u^2 \end{pmatrix} \\ a_3 &= \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix} \\ a_9 &= \begin{pmatrix} 28u^{36} - 22u^{35} + \dots - 35u + 30 \\ -u^{36} + 6u^{35} + \dots + 29u^2 - 5 \end{pmatrix} \\ a_4 &= \begin{pmatrix} 3u^{36} - 13u^{35} + \dots + 16u - 1 \\ 3u^{36} - 32u^{34} + \dots - 6u + 1 \end{pmatrix} \\ a_{10} &= \begin{pmatrix} 27u^{36} - 16u^{35} + \dots - 35u + 25 \\ -u^{36} + 6u^{35} + \dots + 29u^2 - 5 \end{pmatrix} \\ a_{11} &= \begin{pmatrix} 16u^{36} - 13u^{35} + \dots - 23u + 21 \\ -6u^{36} + 4u^{35} + \dots + 9u - 3 \end{pmatrix} \\ a_1 &= \begin{pmatrix} u^3 \\ u^5 - u^3 + u \end{pmatrix} \\ a_5 &= \begin{pmatrix} -3u^{35} + 2u^{34} + \dots + 5u - 3 \\ 4u^{36} - 39u^{34} + \dots - 12u + 1 \end{pmatrix} \\ a_8 &= \begin{pmatrix} u^6 - u^4 + 1 \\ u^8 - 2u^6 + 2u^4 \end{pmatrix} \\ a_{12} &= \begin{pmatrix} 9u^{36} - 12u^{35} + \dots - 9u + 15 \\ -4u^{36} + 39u^{34} + \dots + 12u - 1 \end{pmatrix} \end{aligned}$$

(ii) Obstruction class = 1

$$\begin{aligned} \text{(iii) Cusp Shapes} &= 54u^{36} - 28u^{35} - 503u^{34} + 247u^{33} + 2362u^{32} - 1104u^{31} - \\ &7080u^{30} + 3035u^{29} + 14902u^{28} - 5343u^{27} - 22895u^{26} + 5159u^{25} + 26146u^{24} + 844u^{23} - \\ &22107u^{22} - 12287u^{21} + 13248u^{20} + 23328u^{19} - 3721u^{18} - 27732u^{17} - 4134u^{16} + \\ &24779u^{15} + 9469u^{14} - 18838u^{13} - 10793u^{12} + 13395u^{11} + 8109u^{10} - 8963u^9 - 3831u^8 + \\ &5044u^7 + 921u^6 - 2125u^5 + 104u^4 + 577u^3 - 129u^2 - 95u + 33 \end{aligned}$$

(iv) u -Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{37} - 20u^{36} + \dots + 14u - 1$
c_2	$u^{37} - 10u^{35} + \dots + 7u^2 - 1$
c_3	$u^{37} + 4u^{35} + \dots - 16u^2 - 1$
c_4	$u^{37} + 3u^{36} + \dots - 3u - 1$
c_5	$u^{37} - u^{36} + \dots - u + 1$
c_6	$u^{37} - 10u^{35} + \dots - 7u^2 + 1$
c_7	$u^{37} + 10u^{35} + \dots - 12u^2 + 1$
c_8	$u^{37} + 7u^{36} + \dots + 7u + 1$
c_9	$u^{37} + u^{36} + \dots - u - 1$
c_{10}	$u^{37} + 16u^{32} + \dots - 2u + 1$
c_{11}	$u^{37} - 7u^{36} + \dots + 7u - 1$
c_{12}	$u^{37} - 3u^{36} + \dots - 3u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{37} + 40y^{35} + \dots - 6y - 1$
c_2, c_6	$y^{37} - 20y^{36} + \dots + 14y - 1$
c_3	$y^{37} + 8y^{36} + \dots - 32y - 1$
c_4, c_{12}	$y^{37} - 29y^{36} + \dots + 33y - 1$
c_5, c_9	$y^{37} + 23y^{36} + \dots - 19y - 1$
c_7	$y^{37} + 20y^{36} + \dots + 24y - 1$
c_8, c_{11}	$y^{37} + 19y^{36} + \dots - 23y - 1$
c_{10}	$y^{37} + 32y^{34} + \dots + 32y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.126418 + 1.004850I$		
$a = -0.372929 + 0.514247I$	$-4.68516 - 1.15715I$	$2.36493 + 4.35446I$
$b = 0.245798 - 1.115710I$		
$u = -0.126418 - 1.004850I$		
$a = -0.372929 - 0.514247I$	$-4.68516 + 1.15715I$	$2.36493 - 4.35446I$
$b = 0.245798 + 1.115710I$		
$u = -0.973839 + 0.375194I$		
$a = 0.23798 - 2.10843I$	$-2.50360 - 2.25726I$	$5.71927 + 2.73156I$
$b = -0.277307 + 0.547700I$		
$u = -0.973839 - 0.375194I$		
$a = 0.23798 + 2.10843I$	$-2.50360 + 2.25726I$	$5.71927 - 2.73156I$
$b = -0.277307 - 0.547700I$		
$u = -0.419626 + 0.825034I$		
$a = 0.324957 - 0.704938I$	$-2.59777 - 3.05067I$	$6.56037 + 6.23767I$
$b = -0.089863 + 1.285830I$		
$u = -0.419626 - 0.825034I$		
$a = 0.324957 + 0.704938I$	$-2.59777 + 3.05067I$	$6.56037 - 6.23767I$
$b = -0.089863 - 1.285830I$		
$u = 0.607146 + 0.672527I$		
$a = 0.973930 - 0.732680I$	$0.29387 + 3.25792I$	$4.24381 - 2.66674I$
$b = 0.151249 + 0.674640I$		
$u = 0.607146 - 0.672527I$		
$a = 0.973930 + 0.732680I$	$0.29387 - 3.25792I$	$4.24381 + 2.66674I$
$b = 0.151249 - 0.674640I$		
$u = -1.008990 + 0.437769I$		
$a = -0.938678 + 0.534023I$	$-0.122562 + 0.887703I$	$9.01578 - 1.72530I$
$b = 0.550313 - 0.894606I$		
$u = -1.008990 - 0.437769I$		
$a = -0.938678 - 0.534023I$	$-0.122562 - 0.887703I$	$9.01578 + 1.72530I$
$b = 0.550313 + 0.894606I$		

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.063200 + 0.309105I$ $a = 0.77558 + 1.47407I$ $b = 0.02746 + 1.48117I$	$-6.91036 + 0.94699I$	$-0.69599 - 5.57403I$
$u = 1.063200 - 0.309105I$ $a = 0.77558 - 1.47407I$ $b = 0.02746 - 1.48117I$	$-6.91036 - 0.94699I$	$-0.69599 + 5.57403I$
$u = 1.024330 + 0.515292I$ $a = -1.61272 + 0.68895I$ $b = 0.462091 - 0.745535I$	$0.44457 - 5.19303I$	$7.91069 + 6.14189I$
$u = 1.024330 - 0.515292I$ $a = -1.61272 - 0.68895I$ $b = 0.462091 + 0.745535I$	$0.44457 + 5.19303I$	$7.91069 - 6.14189I$
$u = -0.799770 + 0.277679I$ $a = -3.42907 + 0.12036I$ $b = 0.354210 + 0.616794I$	$-1.75281 + 5.10225I$	$5.06745 - 11.38448I$
$u = -0.799770 - 0.277679I$ $a = -3.42907 - 0.12036I$ $b = 0.354210 - 0.616794I$	$-1.75281 - 5.10225I$	$5.06745 + 11.38448I$
$u = -1.090920 + 0.380355I$ $a = -0.55650 + 1.43830I$ $b = 0.979401 + 0.049172I$	$0.30294 + 2.47989I$	$10.49434 - 3.78883I$
$u = -1.090920 - 0.380355I$ $a = -0.55650 - 1.43830I$ $b = 0.979401 - 0.049172I$	$0.30294 - 2.47989I$	$10.49434 + 3.78883I$
$u = 1.029470 + 0.571073I$ $a = 0.036763 - 0.759707I$ $b = -0.145780 + 0.586296I$	$-1.04342 - 8.09231I$	$1.81725 + 10.87045I$
$u = 1.029470 - 0.571073I$ $a = 0.036763 + 0.759707I$ $b = -0.145780 - 0.586296I$	$-1.04342 + 8.09231I$	$1.81725 - 10.87045I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.806409 + 0.119495I$ $a = -0.765517 + 0.039792I$ $b = 0.09917 + 1.48310I$	$-5.57876 - 2.83725I$	$-5.78371 + 3.99884I$
$u = 0.806409 - 0.119495I$ $a = -0.765517 - 0.039792I$ $b = 0.09917 - 1.48310I$	$-5.57876 + 2.83725I$	$-5.78371 - 3.99884I$
$u = 0.607415 + 0.528386I$ $a = -0.31139 + 2.19278I$ $b = -0.364937 - 0.804048I$	$1.79098 + 0.92962I$	$6.07777 + 2.44142I$
$u = 0.607415 - 0.528386I$ $a = -0.31139 - 2.19278I$ $b = -0.364937 + 0.804048I$	$1.79098 - 0.92962I$	$6.07777 - 2.44142I$
$u = 1.090170 + 0.513154I$ $a = -0.486072 - 0.685584I$ $b = 0.963016 - 0.021020I$	$1.26383 - 4.72050I$	$8.61420 + 3.67188I$
$u = 1.090170 - 0.513154I$ $a = -0.486072 + 0.685584I$ $b = 0.963016 + 0.021020I$	$1.26383 + 4.72050I$	$8.61420 - 3.67188I$
$u = -0.672478 + 0.357461I$ $a = 2.29325 - 1.47377I$ $b = -0.462834 - 0.970386I$	$1.09063 + 2.57531I$	$7.13637 - 8.16815I$
$u = -0.672478 - 0.357461I$ $a = 2.29325 + 1.47377I$ $b = -0.462834 + 0.970386I$	$1.09063 - 2.57531I$	$7.13637 + 8.16815I$
$u = -1.130450 + 0.577358I$ $a = -1.72706 + 0.50896I$ $b = 0.175407 + 1.359510I$	$-4.82564 + 8.27734I$	$2.48773 - 10.16248I$
$u = -1.130450 - 0.577358I$ $a = -1.72706 - 0.50896I$ $b = 0.175407 - 1.359510I$	$-4.82564 - 8.27734I$	$2.48773 + 10.16248I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.267710 + 0.371975I$ $a = -0.527106 - 0.303539I$ $b = -0.282539 - 1.281220I$	$-9.34166 - 3.35760I$	0
$u = 1.267710 - 0.371975I$ $a = -0.527106 + 0.303539I$ $b = -0.282539 + 1.281220I$	$-9.34166 + 3.35760I$	0
$u = -0.650707$ $a = 2.93152$ $b = -1.02903$	2.62307	25.6050
$u = -1.274220 + 0.504060I$ $a = 1.088210 - 0.736370I$ $b = -0.378178 - 1.065620I$	$-8.39704 + 6.52609I$	$0. - 8.92918I$
$u = -1.274220 - 0.504060I$ $a = 1.088210 + 0.736370I$ $b = -0.378178 + 1.065620I$	$-8.39704 - 6.52609I$	$0. + 8.92918I$
$u = 0.326224 + 0.537184I$ $a = 1.030610 + 0.450541I$ $b = -0.992163 - 0.003273I$	$3.42694 + 0.38757I$	$10.76689 + 1.86191I$
$u = 0.326224 - 0.537184I$ $a = 1.030610 - 0.450541I$ $b = -0.992163 + 0.003273I$	$3.42694 - 0.38757I$	$10.76689 - 1.86191I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{37} - 20u^{36} + \dots + 14u - 1)(u^{148} + 77u^{147} + \dots + 2082u + 121)$
c_2	$(u^{37} - 10u^{35} + \dots + 7u^2 - 1)(u^{148} - u^{147} + \dots - 28u + 11)$
c_3	$(u^{37} + 4u^{35} + \dots - 16u^2 - 1)$ $\cdot (u^{148} - u^{147} + \dots - 437764162u + 31663951)$
c_4	$(u^{37} + 3u^{36} + \dots - 3u - 1)(u^{148} - 41u^{146} + \dots - 1867u - 457)$
c_5	$(u^{37} - u^{36} + \dots - u + 1)(u^{148} - 2u^{147} + \dots - 20681u - 4913)$
c_6	$(u^{37} - 10u^{35} + \dots - 7u^2 + 1)(u^{148} - u^{147} + \dots - 28u + 11)$
c_7	$(u^{37} + 10u^{35} + \dots - 12u^2 + 1)$ $\cdot (u^{148} - 3u^{147} + \dots - 52130042u + 4546267)$
c_8	$(u^{37} + 7u^{36} + \dots + 7u + 1)(u^{148} + 6u^{147} + \dots + 147861u + 10043)$
c_9	$(u^{37} + u^{36} + \dots - u - 1)(u^{148} - 2u^{147} + \dots - 20681u - 4913)$
c_{10}	$(u^{37} + 16u^{32} + \dots - 2u + 1)(u^{148} + u^{147} + \dots - 171710u - 36269)$
c_{11}	$(u^{37} - 7u^{36} + \dots + 7u - 1)(u^{148} + 6u^{147} + \dots + 147861u + 10043)$
c_{12}	$(u^{37} - 3u^{36} + \dots - 3u + 1)(u^{148} - 41u^{146} + \dots - 1867u - 457)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{37} + 40y^{35} + \dots - 6y - 1)(y^{148} - 5y^{147} + \dots - 428602y + 14641)$
c_2, c_6	$(y^{37} - 20y^{36} + \dots + 14y - 1)(y^{148} - 77y^{147} + \dots - 2082y + 121)$
c_3	$(y^{37} + 8y^{36} + \dots - 32y - 1)$ $\cdot (y^{148} + 59y^{147} + \dots - 106286132462952552y + 1002605792930401)$
c_4, c_{12}	$(y^{37} - 29y^{36} + \dots + 33y - 1)$ $\cdot (y^{148} - 82y^{147} + \dots - 21312345y + 208849)$
c_5, c_9	$(y^{37} + 23y^{36} + \dots - 19y - 1)$ $\cdot (y^{148} + 98y^{147} + \dots + 311191787y + 24137569)$
c_7	$(y^{37} + 20y^{36} + \dots + 24y - 1)$ $\cdot (y^{148} + 87y^{147} + \dots + 203578457803668y + 20668543635289)$
c_8, c_{11}	$(y^{37} + 19y^{36} + \dots - 23y - 1)$ $\cdot (y^{148} + 90y^{147} + \dots + 2708328479y + 100861849)$
c_{10}	$(y^{37} + 32y^{34} + \dots + 32y - 1)$ $\cdot (y^{148} + 23y^{147} + \dots - 9866857228y + 1315440361)$