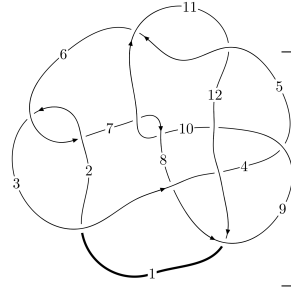
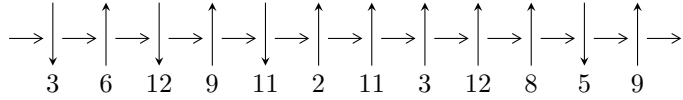


12n₀₃₅₈ (K12n₀₃₅₈)



A knot diagram¹

Linearized knot diagram



Solving Sequence

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

Ideals for irreducible components² of X_{par}

$$I_1^u = \langle -1.46895 \times 10^{55} u^{31} - 2.31201 \times 10^{55} u^{30} + \dots + 5.76616 \times 10^{56} b + 7.64769 \times 10^{56}, \\ - 2.64393 \times 10^{56} u^{31} - 4.61405 \times 10^{56} u^{30} + \dots + 4.90124 \times 10^{57} a - 2.09273 \times 10^{58}, \\ u^{32} + u^{31} + \dots - 115u + 17 \rangle$$

$$I_2^u = \langle 213u^{10} + 543u^9 + \dots + 122b + 729, \\ - 7u^{10} - 84u^9 - 87u^8 + 359u^7 + 671u^6 + 340u^5 - 74u^4 - 1583u^3 - 2753u^2 + 61a - 2059u - 713, \\ u^{11} + 2u^{10} - 3u^9 - 10u^8 - 10u^7 - 5u^6 + 17u^5 + 42u^4 + 49u^3 + 30u^2 + 10u + 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 43 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.

$$\text{I. } I_1^u = \langle -1.47 \times 10^{55} u^{31} - 2.31 \times 10^{55} u^{30} + \dots + 5.77 \times 10^{56} b + 7.65 \times 10^{56}, -2.64 \times 10^{56} u^{31} - 4.61 \times 10^{56} u^{30} + \dots + 4.90 \times 10^{57} a - 2.09 \times 10^{58}, u^{32} + u^{31} + \dots - 115u + 17 \rangle$$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.0539440u^{31} + 0.0941405u^{30} + \dots - 13.7837u + 4.26980 \\ 0.0254754u^{31} + 0.0400962u^{30} + \dots + 7.97722u - 1.32630 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.0539440u^{31} + 0.0941405u^{30} + \dots - 13.7837u + 4.26980 \\ 0.0325030u^{31} + 0.0420930u^{30} + \dots + 11.6828u - 2.00964 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.153248u^{31} - 0.190779u^{30} + \dots - 49.4372u + 5.45094 \\ -0.00183023u^{31} - 0.00426829u^{30} + \dots + 1.54109u + 0.765218 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.127739u^{31} - 0.125659u^{30} + \dots - 66.7508u + 19.1973 \\ 0.0366181u^{31} + 0.0475649u^{30} + \dots + 16.5833u - 2.64057 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.0214410u^{31} + 0.0520475u^{30} + \dots - 25.4665u + 6.27945 \\ 0.0325030u^{31} + 0.0420930u^{30} + \dots + 11.6828u - 2.00964 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.0632575u^{31} - 0.110415u^{30} + \dots + 10.2857u - 6.75211 \\ -0.00420108u^{31} + 0.0133699u^{30} + \dots - 8.89145u + 2.02845 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.0507264u^{31} + 0.0363812u^{30} + \dots + 48.1205u - 4.78017 \\ -0.0492231u^{31} - 0.0588019u^{30} + \dots - 14.1421u + 1.87216 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.164357u^{31} - 0.173224u^{30} + \dots - 83.3341u + 21.8378 \\ 0.0366181u^{31} + 0.0475649u^{30} + \dots + 16.5833u - 2.64057 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.236694u^{31} - 0.382377u^{30} + \dots + 10.7177u - 15.9857 \\ -0.0368276u^{31} - 0.0192369u^{30} + \dots - 25.8376u + 5.99491 \end{pmatrix}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes = $0.163697u^{31} + 0.228954u^{30} + \dots + 26.1806u - 4.32625$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{32} + 6u^{31} + \dots - 18u + 1$
c_2, c_6	$u^{32} - 2u^{31} + \dots - 6u - 1$
c_3	$u^{32} + u^{31} + \dots - 115u + 17$
c_4	$u^{32} + 13u^{30} + \dots - 632u + 247$
c_5, c_{11}	$u^{32} + 17u^{30} + \dots - 8u + 4$
c_7, c_{10}	$u^{32} + 5u^{31} + \dots + 441u + 43$
c_8	$u^{32} - u^{31} + \dots - 84u - 4$
c_9, c_{12}	$u^{32} + 18u^{30} + \dots - 66u + 4$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{32} + 46y^{31} + \dots - 70y + 1$
c_2, c_6	$y^{32} + 6y^{31} + \dots - 18y + 1$
c_3	$y^{32} - 39y^{31} + \dots + 1565y + 289$
c_4	$y^{32} + 26y^{31} + \dots + 560418y + 61009$
c_5, c_{11}	$y^{32} + 34y^{31} + \dots + 2096y + 16$
c_7, c_{10}	$y^{32} - 17y^{31} + \dots - 40025y + 1849$
c_8	$y^{32} + 17y^{31} + \dots - 6688y + 16$
c_9, c_{12}	$y^{32} + 36y^{31} + \dots - 524y + 16$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.890291 + 0.082335I$ $a = -0.189708 - 1.127940I$ $b = -1.42359 + 0.30650I$	$5.53757 + 4.69649I$	$5.81138 - 4.02959I$
$u = 0.890291 - 0.082335I$ $a = -0.189708 + 1.127940I$ $b = -1.42359 - 0.30650I$	$5.53757 - 4.69649I$	$5.81138 + 4.02959I$
$u = 1.161750 + 0.190152I$ $a = -0.786860 - 1.073630I$ $b = 0.379154 + 1.290560I$	$-0.43634 + 3.10421I$	$4.37459 - 4.74046I$
$u = 1.161750 - 0.190152I$ $a = -0.786860 + 1.073630I$ $b = 0.379154 - 1.290560I$	$-0.43634 - 3.10421I$	$4.37459 + 4.74046I$
$u = -1.175740 + 0.411357I$ $a = -0.127425 + 1.003260I$ $b = 1.033100 - 0.703261I$	$4.08919 - 2.13529I$	$6.31237 + 2.22583I$
$u = -1.175740 - 0.411357I$ $a = -0.127425 - 1.003260I$ $b = 1.033100 + 0.703261I$	$4.08919 + 2.13529I$	$6.31237 - 2.22583I$
$u = 0.363496 + 0.633573I$ $a = -0.863446 + 0.181273I$ $b = 0.821719 + 0.702091I$	$1.95190 + 1.49124I$	$11.14082 + 0.24484I$
$u = 0.363496 - 0.633573I$ $a = -0.863446 - 0.181273I$ $b = 0.821719 - 0.702091I$	$1.95190 - 1.49124I$	$11.14082 - 0.24484I$
$u = -0.191542 + 0.580828I$ $a = -0.481932 + 0.510086I$ $b = -0.137918 + 0.496964I$	$0.227121 + 1.283920I$	$2.61051 - 5.66757I$
$u = -0.191542 - 0.580828I$ $a = -0.481932 - 0.510086I$ $b = -0.137918 - 0.496964I$	$0.227121 - 1.283920I$	$2.61051 + 5.66757I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.586343 + 0.124328I$ $a = -0.609159 + 0.724747I$ $b = -0.877370 - 0.691695I$	$-1.63912 + 2.52987I$	$-3.57474 - 4.78541I$
$u = -0.586343 - 0.124328I$ $a = -0.609159 - 0.724747I$ $b = -0.877370 + 0.691695I$	$-1.63912 - 2.52987I$	$-3.57474 + 4.78541I$
$u = 0.580660$ $a = -0.308351$ $b = 1.06280$	1.60623	5.12950
$u = -1.36973 + 0.80419I$ $a = 0.571260 - 0.450326I$ $b = 0.279827 + 1.286450I$	$-2.62185 + 1.74811I$	$0. - 2.22664I$
$u = -1.36973 - 0.80419I$ $a = 0.571260 + 0.450326I$ $b = 0.279827 - 1.286450I$	$-2.62185 - 1.74811I$	$0. + 2.22664I$
$u = 0.371814$ $a = -3.54305$ $b = 0.442169$	2.54557	-5.58620
$u = 1.60097 + 0.38950I$ $a = 0.162146 + 1.065720I$ $b = 0.32297 - 1.79367I$	$-5.37656 - 5.61867I$	$0. + 7.53419I$
$u = 1.60097 - 0.38950I$ $a = 0.162146 - 1.065720I$ $b = 0.32297 + 1.79367I$	$-5.37656 + 5.61867I$	$0. - 7.53419I$
$u = 0.103968 + 0.203519I$ $a = 4.04227 - 6.75624I$ $b = -0.033520 + 0.954984I$	$8.08284 + 4.26134I$	$3.05142 - 2.81645I$
$u = 0.103968 - 0.203519I$ $a = 4.04227 + 6.75624I$ $b = -0.033520 - 0.954984I$	$8.08284 - 4.26134I$	$3.05142 + 2.81645I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.73055 + 0.44345I$ $a = -0.205729 + 0.838219I$ $b = -0.555914 - 1.276110I$	$-4.57570 + 2.93695I$	0
$u = -1.73055 - 0.44345I$ $a = -0.205729 - 0.838219I$ $b = -0.555914 + 1.276110I$	$-4.57570 - 2.93695I$	0
$u = -1.76860 + 0.43431I$ $a = -0.063506 - 1.029620I$ $b = 0.69370 + 1.26085I$	$2.10446 + 4.39637I$	0
$u = -1.76860 - 0.43431I$ $a = -0.063506 + 1.029620I$ $b = 0.69370 - 1.26085I$	$2.10446 - 4.39637I$	0
$u = 1.84685 + 0.19418I$ $a = 0.215144 + 0.971986I$ $b = -0.158364 - 1.139650I$	$-9.68142 + 0.70132I$	0
$u = 1.84685 - 0.19418I$ $a = 0.215144 - 0.971986I$ $b = -0.158364 + 1.139650I$	$-9.68142 - 0.70132I$	0
$u = -0.09305 + 1.85690I$ $a = 0.0673799 + 0.1053580I$ $b = 0.182883 - 0.847098I$	$8.49837 + 3.78398I$	0
$u = -0.09305 - 1.85690I$ $a = 0.0673799 - 0.1053580I$ $b = 0.182883 + 0.847098I$	$8.49837 - 3.78398I$	0
$u = -1.91369 + 0.18455I$ $a = -0.000836 + 0.787239I$ $b = -0.52465 - 1.82225I$	$-5.54501 + 2.88321I$	0
$u = -1.91369 - 0.18455I$ $a = -0.000836 - 0.787239I$ $b = -0.52465 + 1.82225I$	$-5.54501 - 2.88321I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.88568 + 0.52335I$	$1.42097 - 12.63580I$	0
$a = 0.019630 - 0.954252I$		
$b = -0.75451 + 1.55868I$		
$u = 1.88568 - 0.52335I$	$1.42097 + 12.63580I$	0
$a = 0.019630 + 0.954252I$		
$b = -0.75451 - 1.55868I$		

$$\text{II. } I_2^u = \langle 213u^{10} + 543u^9 + \cdots + 122b + 729, -7u^{10} - 84u^9 + \cdots + 61a - 713, u^{11} + 2u^{10} + \cdots + 10u + 1 \rangle$$

(i) Arc colorings

$$\begin{aligned} a_3 &= \begin{pmatrix} 1 \\ 0 \end{pmatrix} \\ a_{12} &= \begin{pmatrix} 0 \\ u \end{pmatrix} \\ a_4 &= \begin{pmatrix} 1 \\ u^2 \end{pmatrix} \\ a_{10} &= \begin{pmatrix} 0.114754u^{10} + 1.37705u^9 + \cdots + 33.7541u + 11.6885 \\ -1.74590u^{10} - 4.45082u^9 + \cdots - 45.4016u - 5.97541 \end{pmatrix} \\ a_9 &= \begin{pmatrix} 0.114754u^{10} + 1.37705u^9 + \cdots + 33.7541u + 11.6885 \\ -2.27049u^{10} - 5.74590u^9 + \cdots - 56.9918u - 7.12295 \end{pmatrix} \\ a_5 &= \begin{pmatrix} 1.68852u^{10} + 4.26230u^9 + \cdots + 54.5246u + 13.1311 \\ 3.90984u^{10} + 4.41803u^9 + \cdots + 18.3361u + 0.959016 \end{pmatrix} \\ a_1 &= \begin{pmatrix} 0.262295u^{10} + 0.147541u^9 + \cdots - 20.7049u - 11.4262 \\ -1.65574u^{10} - 0.868852u^9 + \cdots + 9.26230u + 2.06557 \end{pmatrix} \\ a_8 &= \begin{pmatrix} 2.38525u^{10} + 7.12295u^9 + \cdots + 90.7459u + 18.8115 \\ -2.27049u^{10} - 5.74590u^9 + \cdots - 56.9918u - 7.12295 \end{pmatrix} \\ a_{11} &= \begin{pmatrix} 2.70492u^{10} + 3.45902u^9 + \cdots - 0.0819672u - 7.77049 \\ -2.63115u^{10} - 5.07377u^9 + \cdots - 41.6475u - 4.28689 \end{pmatrix} \\ a_6 &= \begin{pmatrix} 4.54098u^{10} + 4.49180u^9 + \cdots + 46.9836u + 19.2459 \\ 1.57377u^{10} + 2.88525u^9 + \cdots + 20.7705u + 1.44262 \end{pmatrix} \\ a_2 &= \begin{pmatrix} 1.91803u^{10} + 1.01639u^9 + \cdots - 29.9672u - 13.4918 \\ -1.65574u^{10} - 0.868852u^9 + \cdots + 9.26230u + 2.06557 \end{pmatrix} \\ a_7 &= \begin{pmatrix} 9.54098u^{10} + 14.4918u^9 + \cdots + 146.984u + 37.2459 \\ -2.16393u^{10} - 3.96721u^9 + \cdots - 34.9344u - 4.98361 \end{pmatrix} \end{aligned}$$

(ii) Obstruction class = 1

$$\text{(iii) Cusp Shapes} = \frac{1286}{61}u^{10} + \frac{1463}{61}u^9 - \frac{5515}{61}u^8 - \frac{8413}{61}u^7 - 62u^6 - \frac{1306}{61}u^5 + \frac{23259}{61}u^4 + \frac{34245}{61}u^3 + \frac{26410}{61}u^2 + \frac{8233}{61}u + \frac{1921}{61}$$

(iv) u -Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{11} - 7u^{10} + \dots - 5u + 1$
c_2	$u^{11} - u^{10} + 4u^9 - 3u^8 + 7u^7 + u^6 + 7u^5 + 5u^4 + 2u^3 + 3u^2 + u + 1$
c_3	$u^{11} + 2u^{10} + \dots + 10u + 1$
c_4	$u^{11} + u^{10} + 4u^9 + 2u^8 + 7u^7 + 6u^6 + 5u^5 + 4u^4 + 8u^3 + 3u^2 - u + 1$
c_5	$u^{11} + u^{10} + 6u^9 + 4u^8 + 11u^7 + 6u^6 + 8u^5 + 9u^4 + 4u^3 + 10u^2 + 4$
c_6	$u^{11} + u^{10} + 4u^9 + 3u^8 + 7u^7 - u^6 + 7u^5 - 5u^4 + 2u^3 - 3u^2 + u - 1$
c_7	$u^{11} + 4u^{10} + 6u^9 + 6u^8 + 5u^7 + u^6 + 2u^5 + 5u^4 - u^2 - 2u + 1$
c_8	$u^{11} + 5u^9 - 5u^8 - 8u^6 - 3u^5 + 3u^4 + 6u^3 + 2u^2 + 4u - 4$
c_9	$u^{11} + u^{10} + 5u^9 + 3u^8 + u^7 - 4u^6 - 15u^5 - 9u^4 - 2u^3 + 9u^2 + 10u + 4$
c_{10}	$u^{11} - 4u^{10} + 6u^9 - 6u^8 + 5u^7 - u^6 + 2u^5 - 5u^4 + u^2 - 2u - 1$
c_{11}	$u^{11} - u^{10} + 6u^9 - 4u^8 + 11u^7 - 6u^6 + 8u^5 - 9u^4 + 4u^3 - 10u^2 - 4$
c_{12}	$u^{11} - u^{10} + 5u^9 - 3u^8 + u^7 + 4u^6 - 15u^5 + 9u^4 - 2u^3 - 9u^2 + 10u - 4$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{11} - y^{10} + \dots - 5y - 1$
c_2, c_6	$y^{11} + 7y^{10} + \dots - 5y - 1$
c_3	$y^{11} - 10y^{10} + \dots + 40y - 1$
c_4	$y^{11} + 7y^{10} + \dots - 5y - 1$
c_5, c_{11}	$y^{11} + 11y^{10} + \dots - 80y - 16$
c_7, c_{10}	$y^{11} - 4y^{10} - 2y^9 + 20y^8 - 3y^7 - 37y^6 - 26y^5 - 55y^4 - 11y^2 + 6y - 1$
c_8	$y^{11} + 10y^{10} + \dots + 32y - 16$
c_9, c_{12}	$y^{11} + 9y^{10} + \dots + 28y - 16$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.554040 + 0.546152I$ $a = 1.094120 - 0.571079I$ $b = -0.799475 + 0.668078I$	$1.42599 - 1.95755I$	$1.91752 + 5.90392I$
$u = -0.554040 - 0.546152I$ $a = 1.094120 + 0.571079I$ $b = -0.799475 - 0.668078I$	$1.42599 + 1.95755I$	$1.91752 - 5.90392I$
$u = -0.518737 + 0.511108I$ $a = 0.837614 + 0.219662I$ $b = 0.722418 + 0.841231I$	$-0.83223 + 2.29813I$	$6.66822 - 2.61972I$
$u = -0.518737 - 0.511108I$ $a = 0.837614 - 0.219662I$ $b = 0.722418 - 0.841231I$	$-0.83223 - 2.29813I$	$6.66822 + 2.61972I$
$u = 0.078274 + 1.269800I$ $a = 0.142270 - 0.835800I$ $b = 0.213159 - 0.349766I$	$9.66581 + 4.06090I$	$9.65825 - 2.69431I$
$u = 0.078274 - 1.269800I$ $a = 0.142270 + 0.835800I$ $b = 0.213159 + 0.349766I$	$9.66581 - 4.06090I$	$9.65825 + 2.69431I$
$u = -0.158026$ $a = 7.38027$ $b = -0.766684$	2.88930	18.9990
$u = -1.80393 + 0.44391I$ $a = -0.172357 + 0.798653I$ $b = -0.68628 - 1.66680I$	$-5.37171 + 3.56085I$	$-0.98724 - 8.66256I$
$u = -1.80393 - 0.44391I$ $a = -0.172357 - 0.798653I$ $b = -0.68628 + 1.66680I$	$-5.37171 - 3.56085I$	$-0.98724 + 8.66256I$
$u = 1.87745 + 0.06836I$ $a = -0.091784 - 0.990188I$ $b = 0.433524 + 1.266800I$	$-9.62237 + 1.70283I$	$1.74374 - 4.83762I$

	Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u =$	$1.87745 - 0.06836I$		
$a =$	$-0.091784 + 0.990188I$	$-9.62237 - 1.70283I$	$1.74374 + 4.83762I$
$b =$	$0.433524 - 1.266800I$		

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{11} - 7u^{10} + \dots - 5u + 1)(u^{32} + 6u^{31} + \dots - 18u + 1)$
c_2	$(u^{11} - u^{10} + 4u^9 - 3u^8 + 7u^7 + u^6 + 7u^5 + 5u^4 + 2u^3 + 3u^2 + u + 1) \cdot (u^{32} - 2u^{31} + \dots - 6u - 1)$
c_3	$(u^{11} + 2u^{10} + \dots + 10u + 1)(u^{32} + u^{31} + \dots - 115u + 17)$
c_4	$(u^{11} + u^{10} + 4u^9 + 2u^8 + 7u^7 + 6u^6 + 5u^5 + 4u^4 + 8u^3 + 3u^2 - u + 1) \cdot (u^{32} + 13u^{30} + \dots - 632u + 247)$
c_5	$(u^{11} + u^{10} + 6u^9 + 4u^8 + 11u^7 + 6u^6 + 8u^5 + 9u^4 + 4u^3 + 10u^2 + 4) \cdot (u^{32} + 17u^{30} + \dots - 8u + 4)$
c_6	$(u^{11} + u^{10} + 4u^9 + 3u^8 + 7u^7 - u^6 + 7u^5 - 5u^4 + 2u^3 - 3u^2 + u - 1) \cdot (u^{32} - 2u^{31} + \dots - 6u - 1)$
c_7	$(u^{11} + 4u^{10} + 6u^9 + 6u^8 + 5u^7 + u^6 + 2u^5 + 5u^4 - u^2 - 2u + 1) \cdot (u^{32} + 5u^{31} + \dots + 441u + 43)$
c_8	$(u^{11} + 5u^9 - 5u^8 - 8u^6 - 3u^5 + 3u^4 + 6u^3 + 2u^2 + 4u - 4) \cdot (u^{32} - u^{31} + \dots - 84u - 4)$
c_9	$(u^{11} + u^{10} + 5u^9 + 3u^8 + u^7 - 4u^6 - 15u^5 - 9u^4 - 2u^3 + 9u^2 + 10u + 4) \cdot (u^{32} + 18u^{30} + \dots - 66u + 4)$
c_{10}	$(u^{11} - 4u^{10} + 6u^9 - 6u^8 + 5u^7 - u^6 + 2u^5 - 5u^4 + u^2 - 2u - 1) \cdot (u^{32} + 5u^{31} + \dots + 441u + 43)$
c_{11}	$(u^{11} - u^{10} + 6u^9 - 4u^8 + 11u^7 - 6u^6 + 8u^5 - 9u^4 + 4u^3 - 10u^2 - 4) \cdot (u^{32} + 17u^{30} + \dots - 8u + 4)$
c_{12}	$(u^{11} - u^{10} + 5u^9 - 3u^8 + u^7 + 4u^6 - 15u^5 + 9u^4 - 2u^3 - 9u^2 + 10u - 4) \cdot (u^{32} + 18u^{30} + \dots - 66u + 4)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{11} - y^{10} + \dots - 5y - 1)(y^{32} + 46y^{31} + \dots - 70y + 1)$
c_2, c_6	$(y^{11} + 7y^{10} + \dots - 5y - 1)(y^{32} + 6y^{31} + \dots - 18y + 1)$
c_3	$(y^{11} - 10y^{10} + \dots + 40y - 1)(y^{32} - 39y^{31} + \dots + 1565y + 289)$
c_4	$(y^{11} + 7y^{10} + \dots - 5y - 1)(y^{32} + 26y^{31} + \dots + 560418y + 61009)$
c_5, c_{11}	$(y^{11} + 11y^{10} + \dots - 80y - 16)(y^{32} + 34y^{31} + \dots + 2096y + 16)$
c_7, c_{10}	$(y^{11} - 4y^{10} - 2y^9 + 20y^8 - 3y^7 - 37y^6 - 26y^5 - 55y^4 - 11y^2 + 6y - 1)$ $\cdot (y^{32} - 17y^{31} + \dots - 40025y + 1849)$
c_8	$(y^{11} + 10y^{10} + \dots + 32y - 16)(y^{32} + 17y^{31} + \dots - 6688y + 16)$
c_9, c_{12}	$(y^{11} + 9y^{10} + \dots + 28y - 16)(y^{32} + 36y^{31} + \dots - 524y + 16)$