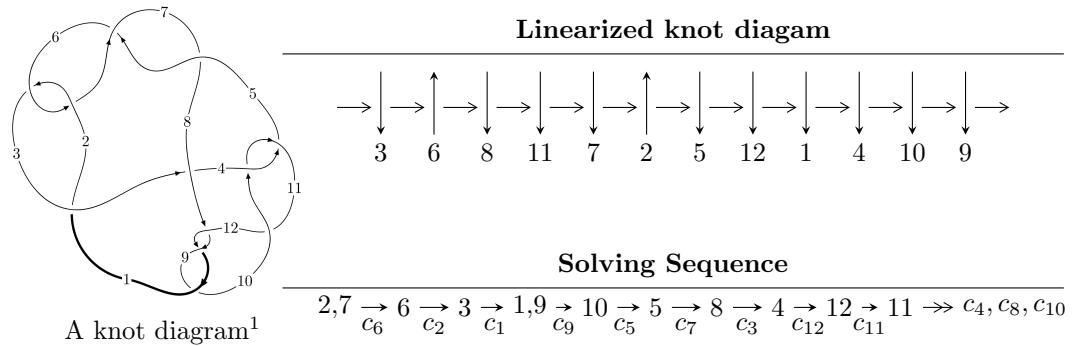


## $12a_{0329}$ ( $K12a_{0329}$ )



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

$$I_1^u = \langle u^{72} + u^{71} + \dots + b - u, \ u^{72} + u^{71} + \dots + a - 1, \ u^{74} + 2u^{73} + \dots - 3u + 1 \rangle$$

$$I_2^u = \langle u^3 + u^2 + b, \ u^3 + u^2 + a + u, \ u^4 + u^3 + u^2 + 1 \rangle$$

\* 2 irreducible components of  $\dim_{\mathbb{C}} = 0$ , with total 78 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.

$$I_1^u = \langle u^{72} + u^{71} + \cdots + b - u, \ u^{72} + u^{71} + \cdots + a - 1, \ u^{74} + 2u^{73} + \cdots - 3u + 1 \rangle^{\text{I.}}$$

(i) **Arc colorings**

$$\begin{aligned} a_2 &= \begin{pmatrix} 0 \\ u \end{pmatrix} \\ a_7 &= \begin{pmatrix} 1 \\ 0 \end{pmatrix} \\ a_6 &= \begin{pmatrix} 1 \\ u^2 \end{pmatrix} \\ a_3 &= \begin{pmatrix} u \\ u^3 + u \end{pmatrix} \\ a_1 &= \begin{pmatrix} u^3 \\ u^5 + u^3 + u \end{pmatrix} \\ a_9 &= \begin{pmatrix} -u^{72} - u^{71} + \cdots + 2u + 1 \\ -u^{72} - u^{71} + \cdots - u^2 + u \end{pmatrix} \\ a_{10} &= \begin{pmatrix} -2u^{72} - u^{71} + \cdots - 7u^2 + 6u \\ u^{73} - u^{72} + \cdots - 3u^2 + 2u \end{pmatrix} \\ a_5 &= \begin{pmatrix} u^2 + 1 \\ u^2 \end{pmatrix} \\ a_8 &= \begin{pmatrix} u^4 + u^2 + 1 \\ u^4 \end{pmatrix} \\ a_4 &= \begin{pmatrix} -u^{11} - 2u^9 - 4u^7 - 4u^5 - 3u^3 \\ -u^{11} - u^9 - 2u^7 - u^5 + u^3 + u \end{pmatrix} \\ a_{12} &= \begin{pmatrix} -u^{71} - u^{70} + \cdots - u + 1 \\ -u^{73} - u^{72} + \cdots + 2u^2 + u \end{pmatrix} \\ a_{11} &= \begin{pmatrix} -u^{71} - u^{70} + \cdots + u + 1 \\ -u^{73} - u^{72} + \cdots + 3u^2 + u \end{pmatrix} \end{aligned}$$

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

(iii) **Cusp Shapes** =  $4u^{73} + 33u^{71} + \cdots + 26u - 15$

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

Crossings	u-Polynomials at each crossing
$c_1, c_5, c_7$	$u^{74} + 18u^{73} + \cdots - 3u + 1$
$c_2, c_6$	$u^{74} - 2u^{73} + \cdots + 3u + 1$
$c_3$	$u^{74} - 2u^{73} + \cdots + 9257u + 4777$
$c_4, c_{10}$	$u^{74} - u^{73} + \cdots - 24u - 16$
$c_8, c_9, c_{12}$	$u^{74} - 5u^{73} + \cdots + 5u - 1$
$c_{11}$	$u^{74} + 27u^{73} + \cdots + 1344u + 256$

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

Crossings	Riley Polynomials at each crossing
$c_1, c_5, c_7$	$y^{74} + 78y^{73} + \cdots - 75y + 1$
$c_2, c_6$	$y^{74} + 18y^{73} + \cdots - 3y + 1$
$c_3$	$y^{74} + 18y^{73} + \cdots - 14218575y + 22819729$
$c_4, c_{10}$	$y^{74} - 27y^{73} + \cdots - 1344y + 256$
$c_8, c_9, c_{12}$	$y^{74} - 63y^{73} + \cdots + 3y + 1$
$c_{11}$	$y^{74} + 33y^{73} + \cdots - 20480y + 65536$

(vi) Complex Volumes and Cusp Shapes

Solutions to $I_1^u$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.370657 + 0.930941I$ $a = -1.27891 + 1.28820I$ $b = -0.48568 - 1.33658I$	$-3.10297 - 5.13562I$	$-11.85911 + 6.70482I$
$u = -0.370657 - 0.930941I$ $a = -1.27891 - 1.28820I$ $b = -0.48568 + 1.33658I$	$-3.10297 + 5.13562I$	$-11.85911 - 6.70482I$
$u = 0.262234 + 0.974045I$ $a = -1.51097 - 0.71110I$ $b = 0.13812 + 1.50691I$	$-10.11750 + 2.86955I$	$-18.1096 + 0.I$
$u = 0.262234 - 0.974045I$ $a = -1.51097 + 0.71110I$ $b = 0.13812 - 1.50691I$	$-10.11750 - 2.86955I$	$-18.1096 + 0.I$
$u = 0.391755 + 0.945458I$ $a = -0.120911 + 0.246009I$ $b = -0.073081 - 0.876023I$	$-0.03542 + 7.02498I$	0
$u = 0.391755 - 0.945458I$ $a = -0.120911 - 0.246009I$ $b = -0.073081 + 0.876023I$	$-0.03542 - 7.02498I$	0
$u = 0.101503 + 0.967548I$ $a = -1.333000 - 0.086551I$ $b = 0.51887 + 1.44531I$	$-6.74695 - 5.46594I$	$-16.3389 + 3.3983I$
$u = 0.101503 - 0.967548I$ $a = -1.333000 + 0.086551I$ $b = 0.51887 - 1.44531I$	$-6.74695 + 5.46594I$	$-16.3389 - 3.3983I$
$u = -0.539297 + 0.874713I$ $a = 1.41107 + 1.07868I$ $b = 1.43835 - 0.33243I$	$-3.04067 + 0.79446I$	0
$u = -0.539297 - 0.874713I$ $a = 1.41107 - 1.07868I$ $b = 1.43835 + 0.33243I$	$-3.04067 - 0.79446I$	0

Solutions to $I_1^u$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.423718 + 0.873936I$		
$a = 0.058791 - 0.298637I$	$1.05241 - 2.06574I$	$-5.32240 + 3.74687I$
$b = -0.105446 + 0.720386I$		
$u = -0.423718 - 0.873936I$		
$a = 0.058791 + 0.298637I$	$1.05241 + 2.06574I$	$-5.32240 - 3.74687I$
$b = -0.105446 - 0.720386I$		
$u = 0.358544 + 0.895439I$		
$a = 0.987293 - 0.627444I$	$-2.38686 + 2.65510I$	$-13.1205 - 6.3597I$
$b = 0.663180 + 0.145591I$		
$u = 0.358544 - 0.895439I$		
$a = 0.987293 + 0.627444I$	$-2.38686 - 2.65510I$	$-13.1205 + 6.3597I$
$b = 0.663180 - 0.145591I$		
$u = 0.394012 + 0.979247I$		
$a = -1.11170 - 1.07359I$	$-5.08396 + 11.12460I$	0
$b = -0.296049 + 1.060090I$		
$u = 0.394012 - 0.979247I$		
$a = -1.11170 + 1.07359I$	$-5.08396 - 11.12460I$	0
$b = -0.296049 - 1.060090I$		
$u = 0.103312 + 0.896931I$		
$a = 0.887399 - 0.107134I$	$-1.62241 - 1.90988I$	$-12.59659 + 2.96678I$
$b = 0.1026740 + 0.0258890I$		
$u = 0.103312 - 0.896931I$		
$a = 0.887399 + 0.107134I$	$-1.62241 + 1.90988I$	$-12.59659 - 2.96678I$
$b = 0.1026740 - 0.0258890I$		
$u = -0.162278 + 0.882080I$		
$a = -1.86533 + 0.01556I$	$-4.28589 + 0.17592I$	$-15.2224 + 1.2982I$
$b = 0.61352 - 1.71143I$		
$u = -0.162278 - 0.882080I$		
$a = -1.86533 - 0.01556I$	$-4.28589 - 0.17592I$	$-15.2224 - 1.2982I$
$b = 0.61352 + 1.71143I$		

Solutions to $I_1^u$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.228592 + 0.865642I$		
$a = -0.205409 - 0.318538I$	$-3.11888 + 1.92265I$	$-16.9691 - 4.8475I$
$b = 0.393610 - 0.827305I$		
$u = 0.228592 - 0.865642I$		
$a = -0.205409 + 0.318538I$	$-3.11888 - 1.92265I$	$-16.9691 + 4.8475I$
$b = 0.393610 + 0.827305I$		
$u = -0.793537 + 0.797011I$		
$a = 1.20434 + 2.94943I$	$-3.39031 + 1.34510I$	0
$b = 3.24568 + 1.59448I$		
$u = -0.793537 - 0.797011I$		
$a = 1.20434 - 2.94943I$	$-3.39031 - 1.34510I$	0
$b = 3.24568 - 1.59448I$		
$u = -0.800342 + 0.871137I$		
$a = -0.361382 - 1.004460I$	$2.93090 - 0.84494I$	0
$b = -1.018710 - 0.097940I$		
$u = -0.800342 - 0.871137I$		
$a = -0.361382 + 1.004460I$	$2.93090 + 0.84494I$	0
$b = -1.018710 + 0.097940I$		
$u = 0.787585 + 0.892783I$		
$a = 3.73862 - 2.99484I$	$0.96592 + 2.96415I$	0
$b = 5.51026 + 0.88946I$		
$u = 0.787585 - 0.892783I$		
$a = 3.73862 + 2.99484I$	$0.96592 - 2.96415I$	0
$b = 5.51026 - 0.88946I$		
$u = -0.648967 + 0.480188I$		
$a = 0.67572 + 1.63606I$	$-1.82857 - 5.13657I$	$-7.61220 + 5.78634I$
$b = 1.05520 + 1.06991I$		
$u = -0.648967 - 0.480188I$		
$a = 0.67572 - 1.63606I$	$-1.82857 + 5.13657I$	$-7.61220 - 5.78634I$
$b = 1.05520 - 1.06991I$		

Solutions to $I_1^u$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.792974 + 0.914514I$		
$a = -0.925828 - 0.048708I$	$2.79856 - 5.13896I$	0
$b = -1.136000 + 0.585010I$		
$u = -0.792974 - 0.914514I$		
$a = -0.925828 + 0.048708I$	$2.79856 + 5.13896I$	0
$b = -1.136000 - 0.585010I$		
$u = 0.871182 + 0.842854I$		
$a = -0.43677 - 4.17578I$	$4.79039 - 2.56885I$	0
$b = 3.19153 - 4.15521I$		
$u = 0.871182 - 0.842854I$		
$a = -0.43677 + 4.17578I$	$4.79039 + 2.56885I$	0
$b = 3.19153 + 4.15521I$		
$u = -0.865285 + 0.852184I$		
$a = -0.446010 - 0.389569I$	$5.30374 - 0.19199I$	0
$b = -1.374710 + 0.215281I$		
$u = -0.865285 - 0.852184I$		
$a = -0.446010 + 0.389569I$	$5.30374 + 0.19199I$	0
$b = -1.374710 - 0.215281I$		
$u = -0.889310 + 0.831084I$		
$a = -0.58412 + 3.55348I$	$3.25231 + 8.92007I$	0
$b = 2.51405 + 3.82161I$		
$u = -0.889310 - 0.831084I$		
$a = -0.58412 - 3.55348I$	$3.25231 - 8.92007I$	0
$b = 2.51405 - 3.82161I$		
$u = -0.880501 + 0.841506I$		
$a = -0.09655 - 1.43175I$	$8.11567 + 4.50987I$	0
$b = -0.96541 - 1.11206I$		
$u = -0.880501 - 0.841506I$		
$a = -0.09655 + 1.43175I$	$8.11567 - 4.50987I$	0
$b = -0.96541 + 1.11206I$		

Solutions to $I_1^u$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.768948 + 0.953815I$		
$a = 3.60195 + 0.74895I$	$-3.85290 - 7.23015I$	0
$b = 3.28481 - 2.83553I$		
$u = -0.768948 - 0.953815I$		
$a = 3.60195 - 0.74895I$	$-3.85290 + 7.23015I$	0
$b = 3.28481 + 2.83553I$		
$u = 0.875221 + 0.863661I$		
$a = -0.24047 + 1.56679I$	$9.13605 + 1.16892I$	0
$b = -1.32613 + 1.10874I$		
$u = 0.875221 - 0.863661I$		
$a = -0.24047 - 1.56679I$	$9.13605 - 1.16892I$	0
$b = -1.32613 - 1.10874I$		
$u = 0.836796 + 0.905566I$		
$a = -0.976206 + 0.856643I$	$6.12773 + 3.11665I$	0
$b = -1.69337 - 0.26275I$		
$u = 0.836796 - 0.905566I$		
$a = -0.976206 - 0.856643I$	$6.12773 - 3.11665I$	0
$b = -1.69337 + 0.26275I$		
$u = -0.284228 + 0.708232I$		
$a = 0.571120 - 0.005427I$	$-0.344659 - 1.199220I$	$-4.27090 + 5.42127I$
$b = -0.023212 + 0.272923I$		
$u = -0.284228 - 0.708232I$		
$a = 0.571120 + 0.005427I$	$-0.344659 + 1.199220I$	$-4.27090 - 5.42127I$
$b = -0.023212 - 0.272923I$		
$u = 0.884209 + 0.886388I$		
$a = -0.453759 + 0.492959I$	$5.67600 + 4.74487I$	0
$b = -1.44464 - 0.27372I$		
$u = 0.884209 - 0.886388I$		
$a = -0.453759 - 0.492959I$	$5.67600 - 4.74487I$	0
$b = -1.44464 + 0.27372I$		

Solutions to $I_1^u$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.824692 + 0.956473I$		
$a = -0.430534 - 0.688248I$	$4.97545 - 6.08633I$	0
$b = -1.273820 + 0.430919I$		
$u = -0.824692 - 0.956473I$		
$a = -0.430534 + 0.688248I$	$4.97545 + 6.08633I$	0
$b = -1.273820 - 0.430919I$		
$u = 0.823326 + 0.965058I$		
$a = 4.31567 + 1.07074I$	$4.40603 + 8.85971I$	0
$b = 2.38456 + 5.11677I$		
$u = 0.823326 - 0.965058I$		
$a = 4.31567 - 1.07074I$	$4.40603 - 8.85971I$	0
$b = 2.38456 - 5.11677I$		
$u = 0.837491 + 0.954895I$		
$a = -1.59825 - 0.12438I$	$8.84737 + 5.18121I$	0
$b = -1.24032 - 1.39697I$		
$u = 0.837491 - 0.954895I$		
$a = -1.59825 + 0.12438I$	$8.84737 - 5.18121I$	0
$b = -1.24032 + 1.39697I$		
$u = -0.827734 + 0.970843I$		
$a = -1.44770 + 0.29178I$	$7.70752 - 10.84290I$	0
$b = -0.93181 + 1.32597I$		
$u = -0.827734 - 0.970843I$		
$a = -1.44770 - 0.29178I$	$7.70752 + 10.84290I$	0
$b = -0.93181 - 1.32597I$		
$u = 0.858246 + 0.946417I$		
$a = -0.453491 + 0.631410I$	$5.48554 + 1.70033I$	0
$b = -1.39039 - 0.40883I$		
$u = 0.858246 - 0.946417I$		
$a = -0.453491 - 0.631410I$	$5.48554 - 1.70033I$	0
$b = -1.39039 + 0.40883I$		

Solutions to $I_1^u$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.826554 + 0.981242I$		
$a = 3.64712 - 1.10764I$	$2.7778 - 15.2746I$	0
$b = 1.77061 - 4.59589I$		
$u = -0.826554 - 0.981242I$		
$a = 3.64712 + 1.10764I$	$2.7778 + 15.2746I$	0
$b = 1.77061 + 4.59589I$		
$u = 0.660743 + 0.252301I$		
$a = -0.786755 + 0.787997I$	$-2.78259 - 7.30543I$	$-7.59550 + 5.05432I$
$b = 1.110110 + 0.042205I$		
$u = 0.660743 - 0.252301I$		
$a = -0.786755 - 0.787997I$	$-2.78259 + 7.30543I$	$-7.59550 - 5.05432I$
$b = 1.110110 - 0.042205I$		
$u = -0.573801 + 0.409204I$		
$a = 0.527291 - 0.334649I$	$2.49523 - 1.66576I$	$-1.39126 + 3.52161I$
$b = -0.483095 - 0.240497I$		
$u = -0.573801 - 0.409204I$		
$a = 0.527291 + 0.334649I$	$2.49523 + 1.66576I$	$-1.39126 - 3.52161I$
$b = -0.483095 + 0.240497I$		
$u = 0.602855 + 0.285159I$		
$a = 0.583424 + 0.499225I$	$2.01747 - 3.35955I$	$-2.79071 + 3.80374I$
$b = -0.364134 + 0.428826I$		
$u = 0.602855 - 0.285159I$		
$a = 0.583424 - 0.499225I$	$2.01747 + 3.35955I$	$-2.79071 - 3.80374I$
$b = -0.364134 - 0.428826I$		
$u = 0.611157$		
$a = -1.22506$	$-7.12640$	$-11.6060$
$b = 1.19125$		
$u = -0.543461 + 0.270079I$		
$a = -1.07351 - 1.11244I$	$-1.09335 + 1.70677I$	$-5.63790 - 1.01096I$
$b = 1.135140 + 0.038101I$		

Solutions to $I_1^u$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.543461 - 0.270079I$		
$a = -1.07351 + 1.11244I$	$-1.09335 - 1.70677I$	$-5.63790 + 1.01096I$
$b = 1.135140 - 0.038101I$		
$u = 0.476340 + 0.362773I$		
$a = 0.81595 - 1.63104I$	$-0.731866 + 0.571685I$	$-5.61090 + 0.52362I$
$b = 0.809668 - 0.738998I$		
$u = 0.476340 - 0.362773I$		
$a = 0.81595 + 1.63104I$	$-0.731866 - 0.571685I$	$-5.61090 - 0.52362I$
$b = 0.809668 + 0.738998I$		
$u = 0.313519$		
$a = 1.64868$	$-0.958769$	$-9.89680$
$b = 0.300888$		

$$\text{II. } I_2^u = \langle u^3 + u^2 + b, \ u^3 + u^2 + a + u, \ u^4 + u^3 + u^2 + 1 \rangle$$

(i) Arc colorings

$$\begin{aligned} a_2 &= \begin{pmatrix} 0 \\ u \end{pmatrix} \\ a_7 &= \begin{pmatrix} 1 \\ 0 \end{pmatrix} \\ a_6 &= \begin{pmatrix} 1 \\ u^2 \end{pmatrix} \\ a_3 &= \begin{pmatrix} u \\ u^3 + u \end{pmatrix} \\ a_1 &= \begin{pmatrix} u^3 \\ u^3 + u^2 + 1 \end{pmatrix} \\ a_9 &= \begin{pmatrix} -u^3 - u^2 - u \\ -u^3 - u^2 \end{pmatrix} \\ a_{10} &= \begin{pmatrix} -u^2 - u \\ 1 \end{pmatrix} \\ a_5 &= \begin{pmatrix} u^2 + 1 \\ u^2 \end{pmatrix} \\ a_8 &= \begin{pmatrix} -u^3 \\ -u^3 - u^2 - 1 \end{pmatrix} \\ a_4 &= \begin{pmatrix} u^2 + 1 \\ u^2 \end{pmatrix} \\ a_{12} &= \begin{pmatrix} -u^2 - u \\ 1 \end{pmatrix} \\ a_{11} &= \begin{pmatrix} -u^2 - u \\ 1 \end{pmatrix} \end{aligned}$$

(ii) Obstruction class = 1

(iii) Cusp Shapes =  $-3u^2 - 2u - 11$

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

Crossings	u-Polynomials at each crossing
$c_1, c_3, c_5$	$u^4 - u^3 + 3u^2 - 2u + 1$
$c_2$	$u^4 - u^3 + u^2 + 1$
$c_4, c_{10}, c_{11}$	$u^4$
$c_6$	$u^4 + u^3 + u^2 + 1$
$c_7$	$u^4 + u^3 + 3u^2 + 2u + 1$
$c_8, c_9$	$(u - 1)^4$
$c_{12}$	$(u + 1)^4$

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

Crossings	Riley Polynomials at each crossing
$c_1, c_3, c_5$ $c_7$	$y^4 + 5y^3 + 7y^2 + 2y + 1$
$c_2, c_6$	$y^4 + y^3 + 3y^2 + 2y + 1$
$c_4, c_{10}, c_{11}$	$y^4$
$c_8, c_9, c_{12}$	$(y - 1)^4$

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

Solutions to $I_2^u$	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.351808 + 0.720342I$		
$a = 0.547424 - 1.120870I$	$-1.85594 + 1.41510I$	$-10.51825 - 2.96122I$
$b = 0.899232 - 0.400532I$		
$u = 0.351808 - 0.720342I$		
$a = 0.547424 + 1.120870I$	$-1.85594 - 1.41510I$	$-10.51825 + 2.96122I$
$b = 0.899232 + 0.400532I$		
$u = -0.851808 + 0.911292I$		
$a = -0.547424 - 0.585652I$	$5.14581 - 3.16396I$	$-8.98175 + 2.83489I$
$b = -1.39923 + 0.32564I$		
$u = -0.851808 - 0.911292I$		
$a = -0.547424 + 0.585652I$	$5.14581 + 3.16396I$	$-8.98175 - 2.83489I$
$b = -1.39923 - 0.32564I$		

### III. u-Polynomials

Crossings	u-Polynomials at each crossing
$c_1, c_5$	$(u^4 - u^3 + 3u^2 - 2u + 1)(u^{74} + 18u^{73} + \dots - 3u + 1)$
$c_2$	$(u^4 - u^3 + u^2 + 1)(u^{74} - 2u^{73} + \dots + 3u + 1)$
$c_3$	$(u^4 - u^3 + 3u^2 - 2u + 1)(u^{74} - 2u^{73} + \dots + 9257u + 4777)$
$c_4, c_{10}$	$u^4(u^{74} - u^{73} + \dots - 24u - 16)$
$c_6$	$(u^4 + u^3 + u^2 + 1)(u^{74} - 2u^{73} + \dots + 3u + 1)$
$c_7$	$(u^4 + u^3 + 3u^2 + 2u + 1)(u^{74} + 18u^{73} + \dots - 3u + 1)$
$c_8, c_9$	$((u - 1)^4)(u^{74} - 5u^{73} + \dots + 5u - 1)$
$c_{11}$	$u^4(u^{74} + 27u^{73} + \dots + 1344u + 256)$
$c_{12}$	$((u + 1)^4)(u^{74} - 5u^{73} + \dots + 5u - 1)$

#### IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
$c_1, c_5, c_7$	$(y^4 + 5y^3 + 7y^2 + 2y + 1)(y^{74} + 78y^{73} + \dots - 75y + 1)$
$c_2, c_6$	$(y^4 + y^3 + 3y^2 + 2y + 1)(y^{74} + 18y^{73} + \dots - 3y + 1)$
$c_3$	$(y^4 + 5y^3 + 7y^2 + 2y + 1) \cdot (y^{74} + 18y^{73} + \dots - 14218575y + 22819729)$
$c_4, c_{10}$	$y^4(y^{74} - 27y^{73} + \dots - 1344y + 256)$
$c_8, c_9, c_{12}$	$((y - 1)^4)(y^{74} - 63y^{73} + \dots + 3y + 1)$
$c_{11}$	$y^4(y^{74} + 33y^{73} + \dots - 20480y + 65536)$