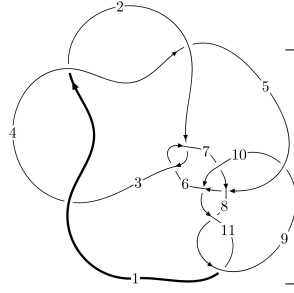
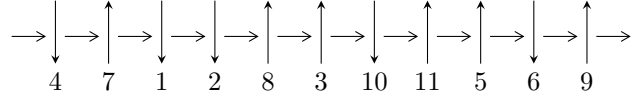


11a₂₅₃ (K11a₂₅₃)



A knot diagram¹

Linearized knot diagram



Solving Sequence

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

Ideals for irreducible components² of X_{par}

$$I_1^u = \langle -3.29827 \times 10^{242} u^{70} - 3.85213 \times 10^{243} u^{69} + \dots + 1.61478 \times 10^{243} b - 8.28511 \times 10^{242}, \\ -1.44895 \times 10^{243} u^{70} - 1.68032 \times 10^{244} u^{69} + \dots + 1.61478 \times 10^{243} a + 5.61105 \times 10^{243}, \\ u^{71} + 12u^{70} + \dots + 2u + 1 \rangle$$

$$I_2^u = \langle b, -u^4 - u^3 - 3u^2 + a - u - 2, u^5 + u^4 + 2u^3 + u^2 + u + 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 76 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.

$$\mathbf{I. } I_1^u = \langle -3.30 \times 10^{242} u^{70} - 3.85 \times 10^{243} u^{69} + \dots + 1.61 \times 10^{243} b - 8.29 \times 10^{242}, -1.45 \times 10^{243} u^{70} - 1.68 \times 10^{244} u^{69} + \dots + 1.61 \times 10^{243} a + 5.61 \times 10^{243}, u^{71} + 12u^{70} + \dots + 2u + 1 \rangle$$

(i) Arc colorings

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} 0.897301u^{70} + 10.4058u^{69} + \dots - 15.1406u - 3.47480 \\ 0.204255u^{70} + 2.38554u^{69} + \dots - 0.797246u + 0.513078 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.693047u^{70} + 8.02030u^{69} + \dots - 14.3434u - 3.98788 \\ 0.204255u^{70} + 2.38554u^{69} + \dots - 0.797246u + 0.513078 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.991671u^{70} + 11.2338u^{69} + \dots - 0.635568u + 2.82255 \\ 0.150636u^{70} + 1.87103u^{69} + \dots - 0.311046u + 0.838335 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -3.05511u^{70} - 38.0827u^{69} + \dots - 14.2425u + 2.92815 \\ -0.251356u^{70} - 2.91652u^{69} + \dots + 4.21504u + 0.652989 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.976661u^{70} + 11.0121u^{69} + \dots + 0.0163988u + 2.65051 \\ 0.218015u^{70} + 2.64923u^{69} + \dots - 0.212886u + 0.879910 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.0842423u^{70} + 1.02322u^{69} + \dots + 9.62101u + 4.52032 \\ -0.0463985u^{70} - 0.516278u^{69} + \dots + 0.435416u - 0.111771 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.658958u^{70} + 7.79572u^{69} + \dots - 9.48146u - 0.610030 \\ 0.0463985u^{70} + 0.516278u^{69} + \dots - 0.435416u + 0.111771 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -3.25923u^{70} - 40.5525u^{69} + \dots - 9.10450u + 3.81600 \\ 0.136311u^{70} + 1.50077u^{69} + \dots + 4.68772u + 1.32234 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -3.25923u^{70} - 40.5525u^{69} + \dots - 9.10450u + 3.81600 \\ 0.136311u^{70} + 1.50077u^{69} + \dots + 4.68772u + 1.32234 \end{pmatrix}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes = $4.88170u^{70} + 58.5557u^{69} + \dots + 35.4740u + 5.13891$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_3, c_4	$u^{71} - 6u^{70} + \dots + 8u - 1$
c_2, c_6	$u^{71} - u^{70} + \dots + 160u - 32$
c_5	$u^{71} + 6u^{70} + \dots + 2u + 1$
c_7	$u^{71} - 12u^{70} + \dots + 2u - 1$
c_8, c_{11}	$u^{71} + 2u^{70} + \dots - 10u - 1$
c_9	$u^{71} - 2u^{70} + \dots + 1044u + 216$
c_{10}	$u^{71} + 2u^{70} + \dots - 26u - 71$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3, c_4	$y^{71} - 64y^{70} + \dots + 192y - 1$
c_2, c_6	$y^{71} + 33y^{70} + \dots - 4608y - 1024$
c_5	$y^{71} - 12y^{70} + \dots + 6y - 1$
c_7	$y^{71} + 60y^{69} + \dots + 10y - 1$
c_8, c_{11}	$y^{71} - 48y^{70} + \dots + 10y - 1$
c_9	$y^{71} + 48y^{70} + \dots + 5221584y - 46656$
c_{10}	$y^{71} + 72y^{70} + \dots - 272958y - 5041$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.703699 + 0.689890I$ $a = -0.550820 - 1.011170I$ $b = 0.82605 - 1.20952I$	$-3.47932 - 8.87997I$	0
$u = 0.703699 - 0.689890I$ $a = -0.550820 + 1.011170I$ $b = 0.82605 + 1.20952I$	$-3.47932 + 8.87997I$	0
$u = -0.864632 + 0.681430I$ $a = 0.08127 + 1.69538I$ $b = -0.422840 + 0.530363I$	$1.050550 - 0.525213I$	0
$u = -0.864632 - 0.681430I$ $a = 0.08127 - 1.69538I$ $b = -0.422840 - 0.530363I$	$1.050550 + 0.525213I$	0
$u = -0.370753 + 0.796394I$ $a = -0.1158600 - 0.0717373I$ $b = -0.967998 - 0.212799I$	$4.87893 + 2.71275I$	$9.31371 + 0.I$
$u = -0.370753 - 0.796394I$ $a = -0.1158600 + 0.0717373I$ $b = -0.967998 + 0.212799I$	$4.87893 - 2.71275I$	$9.31371 + 0.I$
$u = -1.083660 + 0.393419I$ $a = -0.02862 + 1.47352I$ $b = 0.15556 + 1.52316I$	$-8.97886 + 5.87062I$	0
$u = -1.083660 - 0.393419I$ $a = -0.02862 - 1.47352I$ $b = 0.15556 - 1.52316I$	$-8.97886 - 5.87062I$	0
$u = -0.624551 + 0.490472I$ $a = -1.12224 + 1.61022I$ $b = 0.563000 + 1.270970I$	$-6.53398 + 5.54394I$	$-4.50504 - 1.63762I$
$u = -0.624551 - 0.490472I$ $a = -1.12224 - 1.61022I$ $b = 0.563000 - 1.270970I$	$-6.53398 - 5.54394I$	$-4.50504 + 1.63762I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.092610 + 0.777088I$ $a = -0.51735 + 1.37351I$ $b = 0.371326 - 1.151650I$	$-4.63878 - 3.29846I$	$-3.31669 + 7.32300I$
$u = 0.092610 - 0.777088I$ $a = -0.51735 - 1.37351I$ $b = 0.371326 + 1.151650I$	$-4.63878 + 3.29846I$	$-3.31669 - 7.32300I$
$u = 0.626178 + 1.068960I$ $a = -0.272089 + 0.134473I$ $b = 0.555330 + 0.426705I$	$0.63691 - 2.06340I$	0
$u = 0.626178 - 1.068960I$ $a = -0.272089 - 0.134473I$ $b = 0.555330 - 0.426705I$	$0.63691 + 2.06340I$	0
$u = 0.999301 + 0.777975I$ $a = 0.28606 + 1.72412I$ $b = -0.182154 + 0.954080I$	$-2.76633 - 1.81907I$	0
$u = 0.999301 - 0.777975I$ $a = 0.28606 - 1.72412I$ $b = -0.182154 - 0.954080I$	$-2.76633 + 1.81907I$	0
$u = -0.799531 + 1.024210I$ $a = 0.0939270 - 0.0308360I$ $b = 0.919240 - 0.397727I$	$5.39522 + 6.50016I$	0
$u = -0.799531 - 1.024210I$ $a = 0.0939270 + 0.0308360I$ $b = 0.919240 + 0.397727I$	$5.39522 - 6.50016I$	0
$u = 0.563894 + 0.367730I$ $a = 3.33218 + 0.28298I$ $b = 0.497375 + 1.156290I$	$-3.73969 + 4.87336I$	$-11.68238 + 4.88288I$
$u = 0.563894 - 0.367730I$ $a = 3.33218 - 0.28298I$ $b = 0.497375 - 1.156290I$	$-3.73969 - 4.87336I$	$-11.68238 - 4.88288I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.977884 + 0.899474I$ $a = 0.50460 - 1.61337I$ $b = -0.434959 - 1.171370I$	$0.83262 + 6.84654I$	0
$u = -0.977884 - 0.899474I$ $a = 0.50460 + 1.61337I$ $b = -0.434959 + 1.171370I$	$0.83262 - 6.84654I$	0
$u = 0.466586 + 0.449196I$ $a = 0.441513 + 1.091590I$ $b = -0.78926 + 1.18254I$	$1.70771 - 3.92061I$	$2.90621 + 12.12775I$
$u = 0.466586 - 0.449196I$ $a = 0.441513 - 1.091590I$ $b = -0.78926 - 1.18254I$	$1.70771 + 3.92061I$	$2.90621 - 12.12775I$
$u = -0.647071$ $a = -1.79610$ $b = -0.259845$	2.31401	2.89560
$u = 0.107050 + 0.611923I$ $a = -0.276683 - 0.818069I$ $b = -0.363096 + 0.475061I$	$0.638942 - 1.236310I$	$4.36186 + 4.95807I$
$u = 0.107050 - 0.611923I$ $a = -0.276683 + 0.818069I$ $b = -0.363096 - 0.475061I$	$0.638942 + 1.236310I$	$4.36186 - 4.95807I$
$u = -0.794700 + 1.129040I$ $a = 1.12598 - 1.24645I$ $b = -0.782344 - 0.411126I$	$0.57965 - 2.48080I$	0
$u = -0.794700 - 1.129040I$ $a = 1.12598 + 1.24645I$ $b = -0.782344 + 0.411126I$	$0.57965 + 2.48080I$	0
$u = -0.532056 + 0.272808I$ $a = -0.08049 - 1.71128I$ $b = 0.091987 - 1.395920I$	$-0.50220 + 3.12016I$	$-4.96274 - 11.92067I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.532056 - 0.272808I$ $a = -0.08049 + 1.71128I$ $b = 0.091987 + 1.395920I$	$-0.50220 - 3.12016I$	$-4.96274 + 11.92067I$
$u = -0.44936 + 1.35350I$ $a = -0.0265873 + 0.0488917I$ $b = -0.040910 + 0.635562I$	$3.76322 + 4.31820I$	0
$u = -0.44936 - 1.35350I$ $a = -0.0265873 - 0.0488917I$ $b = -0.040910 - 0.635562I$	$3.76322 - 4.31820I$	0
$u = 1.39070 + 0.32345I$ $a = 0.116842 - 1.177400I$ $b = -0.116001 - 1.363920I$	$-10.36010 - 0.43943I$	0
$u = 1.39070 - 0.32345I$ $a = 0.116842 + 1.177400I$ $b = -0.116001 + 1.363920I$	$-10.36010 + 0.43943I$	0
$u = -0.071807 + 0.562576I$ $a = -2.05309 - 1.70487I$ $b = -0.158109 + 0.674265I$	$0.733207 - 1.164170I$	$5.75824 + 3.22185I$
$u = -0.071807 - 0.562576I$ $a = -2.05309 + 1.70487I$ $b = -0.158109 - 0.674265I$	$0.733207 + 1.164170I$	$5.75824 - 3.22185I$
$u = -1.06557 + 0.95974I$ $a = -0.1048880 + 0.0619005I$ $b = -1.204060 + 0.543396I$	$-0.14862 + 9.86900I$	0
$u = -1.06557 - 0.95974I$ $a = -0.1048880 - 0.0619005I$ $b = -1.204060 - 0.543396I$	$-0.14862 - 9.86900I$	0
$u = 0.484399 + 0.253838I$ $a = -1.69079 + 1.46053I$ $b = 0.384908 + 0.642002I$	$-2.06670 - 0.96031I$	$-7.01026 - 0.44637I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.484399 - 0.253838I$ $a = -1.69079 - 1.46053I$ $b = 0.384908 - 0.642002I$	$-2.06670 + 0.96031I$	$-7.01026 + 0.44637I$
$u = 0.524876 + 0.152599I$ $a = -0.238499 + 0.515412I$ $b = 1.078050 + 0.845687I$	$-1.94802 - 1.61598I$	$-10.03099 + 8.04874I$
$u = 0.524876 - 0.152599I$ $a = -0.238499 - 0.515412I$ $b = 1.078050 - 0.845687I$	$-1.94802 + 1.61598I$	$-10.03099 - 8.04874I$
$u = 1.13500 + 0.95032I$ $a = 0.267670 - 0.095830I$ $b = -1.049030 - 0.353850I$	$-3.94869 - 4.27443I$	0
$u = 1.13500 - 0.95032I$ $a = 0.267670 + 0.095830I$ $b = -1.049030 + 0.353850I$	$-3.94869 + 4.27443I$	0
$u = -0.510263$ $a = 0.359168$ $b = 1.45559$	-2.44443	-13.2680
$u = -1.09311 + 1.04884I$ $a = -0.65300 + 1.41019I$ $b = 0.639775 + 1.172900I$	$3.01535 + 12.24190I$	0
$u = -1.09311 - 1.04884I$ $a = -0.65300 - 1.41019I$ $b = 0.639775 - 1.172900I$	$3.01535 - 12.24190I$	0
$u = -0.380984 + 0.282605I$ $a = 1.31704 - 2.50803I$ $b = -0.342943 - 0.988238I$	$-0.62570 + 2.03170I$	$-1.27918 - 2.72742I$
$u = -0.380984 - 0.282605I$ $a = 1.31704 + 2.50803I$ $b = -0.342943 + 0.988238I$	$-0.62570 - 2.03170I$	$-1.27918 + 2.72742I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.32159 + 0.77978I$ $a = -0.461978 + 1.215750I$ $b = 0.550290 + 0.713216I$	$3.94019 + 0.36090I$	0
$u = -1.32159 - 0.77978I$ $a = -0.461978 - 1.215750I$ $b = 0.550290 - 0.713216I$	$3.94019 - 0.36090I$	0
$u = 0.343738 + 0.223330I$ $a = -7.66838 + 0.46120I$ $b = -0.418183 - 0.830193I$	$1.53422 + 1.77853I$	$-13.6461 + 18.0080I$
$u = 0.343738 - 0.223330I$ $a = -7.66838 - 0.46120I$ $b = -0.418183 + 0.830193I$	$1.53422 - 1.77853I$	$-13.6461 - 18.0080I$
$u = -0.393942$ $a = 1.04989$ $b = 1.00143$	-2.81001	-3.04700
$u = 1.15700 + 1.12146I$ $a = -0.63710 - 1.29592I$ $b = 0.504028 - 1.050930I$	$-1.17091 - 6.36314I$	0
$u = 1.15700 - 1.12146I$ $a = -0.63710 + 1.29592I$ $b = 0.504028 + 1.050930I$	$-1.17091 + 6.36314I$	0
$u = 0.141965 + 0.325094I$ $a = -10.62010 - 3.90398I$ $b = 0.753769 - 0.149844I$	$-0.821815 + 0.287086I$	$15.6399 + 24.5037I$
$u = 0.141965 - 0.325094I$ $a = -10.62010 + 3.90398I$ $b = 0.753769 + 0.149844I$	$-0.821815 - 0.287086I$	$15.6399 - 24.5037I$
$u = -1.21755 + 1.11843I$ $a = 0.644457 - 1.245450I$ $b = -0.77537 - 1.24885I$	$-2.4732 + 16.9235I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.21755 - 1.11843I$		
$a = 0.644457 + 1.245450I$	$-2.4732 - 16.9235I$	0
$b = -0.77537 + 1.24885I$		
$u = -1.01851 + 1.30436I$		
$a = -0.002774 - 0.719604I$	$3.42139 - 4.04641I$	0
$b = 0.542577 - 0.884808I$		
$u = -1.01851 - 1.30436I$		
$a = -0.002774 + 0.719604I$	$3.42139 + 4.04641I$	0
$b = 0.542577 + 0.884808I$		
$u = 0.24162 + 1.73943I$		
$a = 0.251256 - 0.242611I$	$-3.63710 - 0.29930I$	0
$b = -0.300612 - 1.059860I$		
$u = 0.24162 - 1.73943I$		
$a = 0.251256 + 0.242611I$	$-3.63710 + 0.29930I$	0
$b = -0.300612 + 1.059860I$		
$u = 1.38157 + 1.26431I$		
$a = 0.570316 + 1.053060I$	$-6.73040 - 10.34400I$	0
$b = -0.640749 + 1.227980I$		
$u = 1.38157 - 1.26431I$		
$a = 0.570316 - 1.053060I$	$-6.73040 + 10.34400I$	0
$b = -0.640749 - 1.227980I$		
$u = -1.84457 + 0.68870I$		
$a = 0.278706 - 0.975731I$	$-0.67110 + 3.32518I$	0
$b = -0.470368 - 1.055660I$		
$u = -1.84457 - 0.68870I$		
$a = 0.278706 + 0.975731I$	$-0.67110 - 3.32518I$	0
$b = -0.470368 + 1.055660I$		
$u = -1.07373 + 1.68578I$		
$a = 0.003009 + 0.521248I$	$-1.60491 - 7.59190I$	0
$b = -0.572860 + 1.122140I$		

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.07373 - 1.68578I$		
$a = 0.003009 - 0.521248I$	$-1.60491 + 7.59190I$	0
$b = -0.572860 - 1.122140I$		

$$\text{II. } I_2^u = \langle b, -u^4 - u^3 - 3u^2 + a - u - 2, u^5 + u^4 + 2u^3 + u^2 + u + 1 \rangle$$

(i) Arc colorings

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} u^4 + u^3 + 3u^2 + u + 2 \\ 0 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} u^4 + u^3 + 3u^2 + u + 2 \\ 0 \end{pmatrix}$$

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

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

$$a_5 = \begin{pmatrix} u^2 + 1 \\ u^4 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} u^4 + u^3 + 4u^2 + u + 3 \\ u^4 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -u^2 - 1 \\ -u^4 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} u^4 + u^2 + 1 \\ -u^4 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} u^4 + u^2 + 1 \\ -u^4 \end{pmatrix}$$

(ii) Obstruction class = 1

(iii) Cusp Shapes = $-4u^4 + 5u^3 - 3u^2 + 6u + 1$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3, c_4	$(y - 1)^5$
c_2, c_6	y^5
c_5	$y^5 - y^4 + 8y^3 - 3y^2 + 3y - 1$
c_7, c_{10}	$y^5 + 3y^4 + 4y^3 + y^2 - y - 1$
c_8, c_9, c_{11}	$y^5 - 5y^4 + 8y^3 - 3y^2 - y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.339110 + 0.822375I$ $a = 0.01014 + 1.59703I$ $b = 0$	$-1.31583 - 1.53058I$	$1.45754 + 4.40323I$
$u = 0.339110 - 0.822375I$ $a = 0.01014 - 1.59703I$ $b = 0$	$-1.31583 + 1.53058I$	$1.45754 - 4.40323I$
$u = -0.766826$ $a = 2.89210$ $b = 0$	0.756147	-9.00270
$u = -0.455697 + 1.200150I$ $a = 0.043806 - 0.365575I$ $b = 0$	$4.22763 + 4.40083I$	$10.04378 - 5.20937I$
$u = -0.455697 - 1.200150I$ $a = 0.043806 + 0.365575I$ $b = 0$	$4.22763 - 4.40083I$	$10.04378 + 5.20937I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u - 1)^5)(u^{71} - 6u^{70} + \dots + 8u - 1)$
c_2, c_6	$u^5(u^{71} - u^{70} + \dots + 160u - 32)$
c_3, c_4	$((u + 1)^5)(u^{71} - 6u^{70} + \dots + 8u - 1)$
c_5	$(u^5 + 3u^4 + 4u^3 + u^2 - u - 1)(u^{71} + 6u^{70} + \dots + 2u + 1)$
c_7	$(u^5 + u^4 + 2u^3 + u^2 + u + 1)(u^{71} - 12u^{70} + \dots + 2u - 1)$
c_8	$(u^5 - u^4 - 2u^3 + u^2 + u + 1)(u^{71} + 2u^{70} + \dots - 10u - 1)$
c_9	$(u^5 + u^4 - 2u^3 - u^2 + u - 1)(u^{71} - 2u^{70} + \dots + 1044u + 216)$
c_{10}	$(u^5 - u^4 + 2u^3 - u^2 + u - 1)(u^{71} + 2u^{70} + \dots - 26u - 71)$
c_{11}	$(u^5 + u^4 - 2u^3 - u^2 + u - 1)(u^{71} + 2u^{70} + \dots - 10u - 1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_3, c_4	$((y - 1)^5)(y^{71} - 64y^{70} + \dots + 192y - 1)$
c_2, c_6	$y^5(y^{71} + 33y^{70} + \dots - 4608y - 1024)$
c_5	$(y^5 - y^4 + 8y^3 - 3y^2 + 3y - 1)(y^{71} - 12y^{70} + \dots + 6y - 1)$
c_7	$(y^5 + 3y^4 + 4y^3 + y^2 - y - 1)(y^{71} + 60y^{69} + \dots + 10y - 1)$
c_8, c_{11}	$(y^5 - 5y^4 + 8y^3 - 3y^2 - y - 1)(y^{71} - 48y^{70} + \dots + 10y - 1)$
c_9	$(y^5 - 5y^4 + 8y^3 - 3y^2 - y - 1)(y^{71} + 48y^{70} + \dots + 5221584y - 46656)$
c_{10}	$(y^5 + 3y^4 + 4y^3 + y^2 - y - 1)(y^{71} + 72y^{70} + \dots - 272958y - 5041)$