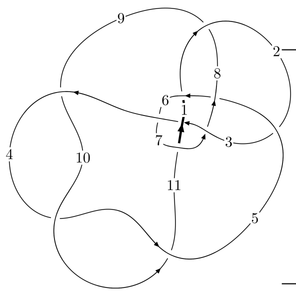
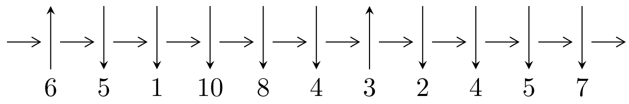
$11n_{185}$ ($K11n_{185}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

Ideals for irreducible components[2] of $X_{\mathbf{par}}$

$$I_1^u = \langle -25u^{13} - 100u^{12} + \cdots + 32b - 4,\ -u^{13} + 44u^{12} + \cdots + 64a + 284,$$
$$u^{14} + 6u^{13} + 14u^{12} + 8u^{11} - 35u^{10} - 98u^9 - 105u^8 + 154u^6 + 224u^5 + 168u^4 + 74u^3 + 26u^2 + 16u + 8\rangle$$
$$I_2^u = \langle au + b,\ u^5a + 2u^4a + 3u^5 + 2u^3a + 9u^4 - u^2a + 8u^3 + 4a^2 - au - u^2 - 10u - 7,$$
$$u^6 + 4u^5 + 6u^4 + 3u^3 - 3u^2 - 6u - 4\rangle$$
$$I_3^u = \langle -10a^3u^2 - 36a^2u^2 + \cdots - 289a - 111,$$
$$a^3u^2 + a^4 - 2a^3u + 3a^2u^2 + a^3 - 2a^2u + u^2a + 3a^2 - 5au + 6u^2 + 4a - 6u + 1,\ u^3 - u^2 + 1\rangle$$
$$I_4^u = \langle -2452292589a^7u^2 + 1959398184a^6u^2 + \cdots - 9164004134a - 16046840503,$$
$$-a^7u^2 + 10a^6u^2 + \cdots + 116a + 33,\ u^3 - u^2 + 1\rangle$$
$$I_5^u = \langle 6u^{17} + 4u^{16} + \cdots + 2b + 46,\ 23u^{17} + 12u^{16} + \cdots + 4a + 112,$$
$$u^{18} - 8u^{16} + 29u^{14} - 68u^{12} + 115u^{10} - 141u^8 + 126u^6 - 79u^4 + 28u^2 - 4\rangle$$
$$I_6^u = \langle -u^2 + b - u + 1,\ -u^2 + a + 1,\ u^3 + u^2 - 1\rangle$$
$$I_7^u = \langle -au - u^2 + b + u - 1,\ -u^2a + a^2 + 2au + u^2 - a + 1,\ u^3 - u^2 + 1\rangle$$

$$I_1^v = \langle a,\ b + 1,\ v + 1\rangle$$

* 8 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 90 representations.

[1]The 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`).

[2]All coefficients of polynomials are rational numbers. But the coefficients are sometimes approximated in decimal forms when there is not enough margin.

I. $I_1^u = \langle -25u^{13} - 100u^{12} + \cdots + 32b - 4,\ -u^{13} + 44u^{12} + \cdots + 64a + 284,\ u^{14} + 6u^{13} + \cdots + 16u + 8\rangle$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0.0156250u^{13} - 0.687500u^{12} + \cdots - 3.40625u - 4.43750 \\ \frac{25}{32}u^{13} + \frac{25}{8}u^{12} + \cdots + \frac{75}{16}u + \frac{1}{8} \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.265625u^{13} + 1.56250u^{12} + \cdots + 2.59375u + 3.06250 \\ \frac{1}{32}u^{13} + \frac{5}{8}u^{12} + \cdots + \frac{35}{16}u + \frac{17}{8} \end{pmatrix}$$

$$a_4 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.765625u^{13} + 3.81250u^{12} + \cdots + 8.09375u + 4.56250 \\ 1.34375u^{13} + 6.37500u^{12} + \cdots + 11.0625u + 6.37500 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.234375u^{13} - 0.937500u^{12} + \cdots - 0.406250u - 0.937500 \\ \frac{1}{32}u^{13} + \frac{5}{8}u^{12} + \cdots + \frac{35}{16}u + \frac{17}{8} \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.765625u^{13} + 3.81250u^{12} + \cdots + 8.09375u + 4.56250 \\ \frac{25}{32}u^{13} + \frac{25}{8}u^{12} + \cdots + \frac{75}{16}u + \frac{1}{8} \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.578125u^{13} + 2.56250u^{12} + \cdots + 2.96875u + 1.81250 \\ 1.34375u^{13} + 6.37500u^{12} + \cdots + 11.0625u + 6.37500 \end{pmatrix}$$

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

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

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -\frac{11}{8}u^{13} - \frac{13}{2}u^{12} - \frac{49}{4}u^{11} - \frac{1}{2}u^{10} + \frac{361}{8}u^9 + \frac{183}{2}u^8 + \frac{491}{8}u^7 - \frac{247}{4}u^6 - \frac{673}{4}u^5 - \frac{307}{2}u^4 - 60u^3 - \frac{23}{4}u^2 - \frac{33}{4}u - \frac{31}{2}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7	$u^{14} - u^{13} + \cdots + 2u^2 + 2$
c_2, c_6, c_8 c_{11}	$u^{14} - u^{13} + \cdots - u + 1$
c_3, c_5	$u^{14} - 7u^{13} + \cdots - 25u + 11$
c_4, c_9, c_{10}	$u^{14} - 6u^{13} + \cdots - 16u + 8$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^{14} + 3y^{13} + \cdots + 8y + 4$
c_2, c_6, c_8 c_{11}	$y^{14} + 11y^{13} + \cdots + 21y + 1$
c_3, c_5	$y^{14} - 7y^{13} + \cdots - 493y + 121$
c_4, c_9, c_{10}	$y^{14} - 8y^{13} + \cdots + 160y + 64$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.667935 + 1.025090I$ $a = -0.285457 - 0.894080I$ $b = -1.107180 - 0.304570I$	$4.32333 + 2.75562I$	$-3.35979 - 3.59185I$
$u = -0.667935 - 1.025090I$ $a = -0.285457 + 0.894080I$ $b = -1.107180 + 0.304570I$	$4.32333 - 2.75562I$	$-3.35979 + 3.59185I$
$u = -0.536682 + 1.118280I$ $a = 0.636097 + 0.907281I$ $b = 1.355980 - 0.224415I$	$3.36641 - 10.30200I$	$-6.23771 + 5.94221I$
$u = -0.536682 - 1.118280I$ $a = 0.636097 - 0.907281I$ $b = 1.355980 + 0.224415I$	$3.36641 + 10.30200I$	$-6.23771 - 5.94221I$
$u = -1.069760 + 0.720252I$ $a = -0.777184 - 0.841410I$ $b = -1.43743 - 0.34034I$	$3.01100 + 3.56965I$	$-5.19675 - 2.89817I$
$u = -1.069760 - 0.720252I$ $a = -0.777184 + 0.841410I$ $b = -1.43743 + 0.34034I$	$3.01100 - 3.56965I$	$-5.19675 + 2.89817I$
$u = -1.344910 + 0.179800I$ $a = 0.609809 - 0.501435I$ $b = 0.729978 - 0.784026I$	$-5.73092 + 3.41357I$	$-11.64336 + 0.09610I$
$u = -1.344910 - 0.179800I$ $a = 0.609809 + 0.501435I$ $b = 0.729978 + 0.784026I$	$-5.73092 - 3.41357I$	$-11.64336 - 0.09610I$
$u = -1.19710 + 0.78285I$ $a = 0.78383 + 1.31732I$ $b = 1.96958 + 0.96334I$	$1.2941 + 17.1000I$	$-8.51485 - 9.31216I$
$u = -1.19710 - 0.78285I$ $a = 0.78383 - 1.31732I$ $b = 1.96958 - 0.96334I$	$1.2941 - 17.1000I$	$-8.51485 + 9.31216I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.252591 + 0.403462I$ $a = -0.828123 - 0.088481I$ $b = 0.173478 + 0.356466I$	$-0.81174 - 1.19027I$	$-7.67312 + 5.52205I$
$u = 0.252591 - 0.403462I$ $a = -0.828123 + 0.088481I$ $b = 0.173478 - 0.356466I$	$-0.81174 + 1.19027I$	$-7.67312 - 5.52205I$
$u = 1.56380 + 0.03954I$ $a = 0.111030 - 0.272749I$ $b = -0.184413 + 0.422135I$	$-4.62975 + 6.18029I$	$-7.37442 - 7.53018I$
$u = 1.56380 - 0.03954I$ $a = 0.111030 + 0.272749I$ $b = -0.184413 - 0.422135I$	$-4.62975 - 6.18029I$	$-7.37442 + 7.53018I$

II.

$$\boldsymbol{I_2^u = \langle au + b,\ u^5a + 3u^5 + \cdots + 4a^2 - 7,\ u^6 + 4u^5 + 6u^4 + 3u^3 - 3u^2 - 6u - 4\rangle}$$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} a \\ -au \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} \frac{1}{2}u^5a - \frac{1}{4}u^5 + \cdots - a + 1 \\ u^5a - \frac{1}{2}u^5 + \cdots - 2a + 1 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -\frac{1}{4}u^5 - \frac{1}{2}u^4 + \cdots + a + 1 \\ -\frac{3}{2}u^5 - 3u^4 + \cdots + \frac{7}{2}u + 3 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -\frac{1}{2}u^5a + \frac{1}{4}u^5 + \cdots + a - \frac{3}{2} \\ -u^5a - 2u^4a + u^5 - u^3a + 3u^4 + u^2a + 3u^3 + 2au + 2a - 2u - 3 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -\frac{1}{4}u^5 - \frac{1}{2}u^4 + \cdots + a + 1 \\ -\frac{1}{2}u^5 - u^4 - u^3 + au + \frac{1}{2}u^2 + \frac{3}{2}u + 1 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -u^3a - u^2a + a \\ -u^3a - u^2a - au \end{pmatrix}$$

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

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

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -14u^5 - 31u^4 - 31u^3 + 5u^2 + 28u + 30$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7	$(u^6 - 2u^4 - u^3 + 3u^2 + u - 1)^2$
c_2, c_6, c_8 c_{11}	$u^{12} - u^{11} + \cdots - 7u + 1$
c_3, c_5	$u^{12} - 5u^{11} + \cdots + 42u - 7$
c_4, c_9, c_{10}	$(u^6 - 4u^5 + 6u^4 - 3u^3 - 3u^2 + 6u - 4)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$(y^6 - 4y^5 + 10y^4 - 15y^3 + 15y^2 - 7y + 1)^2$
c_2, c_6, c_8 c_{11}	$y^{12} + y^{11} + \cdots - 59y + 1$
c_3, c_5	$y^{12} - 5y^{11} + \cdots + 154y + 49$
c_4, c_9, c_{10}	$(y^6 - 4y^5 + 6y^4 - 5y^3 - 3y^2 - 12y + 16)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.977719$ $a = -0.332086 + 0.227752I$ $b = 0.324687 - 0.222678I$	-0.985708	-7.65430
$u = 0.977719$ $a = -0.332086 - 0.227752I$ $b = 0.324687 + 0.222678I$	-0.985708	-7.65430
$u = -0.429813 + 1.015170I$ $a = -0.575835 - 1.071170I$ $b = -1.334920 + 0.124164I$	$4.79788 - 2.68180I$	$-2.86354 + 2.82727I$
$u = -0.429813 + 1.015170I$ $a = 0.024967 + 0.780798I$ $b = 0.803370 + 0.310252I$	$4.79788 - 2.68180I$	$-2.86354 + 2.82727I$
$u = -0.429813 - 1.015170I$ $a = -0.575835 + 1.071170I$ $b = -1.334920 - 0.124164I$	$4.79788 + 2.68180I$	$-2.86354 - 2.82727I$
$u = -0.429813 - 1.015170I$ $a = 0.024967 - 0.780798I$ $b = 0.803370 - 0.310252I$	$4.79788 + 2.68180I$	$-2.86354 - 2.82727I$
$u = -1.23275 + 0.71927I$ $a = 0.626848 + 0.640690I$ $b = 1.233580 + 0.338935I$	$2.32551 + 9.01899I$	$-7.13133 - 8.44417I$
$u = -1.23275 + 0.71927I$ $a = -0.93315 - 1.29101I$ $b = -2.07892 - 0.92030I$	$2.32551 + 9.01899I$	$-7.13133 - 8.44417I$
$u = -1.23275 - 0.71927I$ $a = 0.626848 - 0.640690I$ $b = 1.233580 - 0.338935I$	$2.32551 - 9.01899I$	$-7.13133 + 8.44417I$
$u = -1.23275 - 0.71927I$ $a = -0.93315 + 1.29101I$ $b = -2.07892 + 0.92030I$	$2.32551 - 9.01899I$	$-7.13133 + 8.44417I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.65260$ $a = \quad 1.75945$ $b = \quad 2.90767$	-9.97120	78.6440
$u = -1.65260$ $a = \quad 0.119054$ $b = \quad 0.196749$	-9.97120	78.6440

III. $\boldsymbol{I^u_3} =$
$\boldsymbol{\langle -10a^3u^2 - 36a^2u^2 + \cdots - 289a - 111,\ a^3u^2 + 3a^2u^2 + \cdots + 4a + 1,\ u^3 - u^2 + 1\rangle}$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} a \\ 0.0332226a^3u^2 + 0.119601a^2u^2 + \cdots + 0.960133a + 0.368771 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.249169a^3u^2 - 0.897010a^2u^2 + \cdots - 0.700997a - 0.265781 \\ -0.205980a^3u^2 - 0.541528a^2u^2 + \cdots - 0.152824a - 0.0863787 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -0.189369a^3u^2 - 0.481728a^2u^2 + \cdots - 0.172757a - 0.401993 \\ -0.146179a^3u^2 - 0.126246a^2u^2 + \cdots + 0.375415a - 0.222591 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.0431894a^3u^2 + 0.355482a^2u^2 + \cdots + 0.548173a + 0.179402 \\ -0.176080a^3u^2 + 0.166113a^2u^2 + \cdots + 0.611296a + 0.345515 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.189369a^3u^2 - 0.481728a^2u^2 + \cdots - 0.172757a - 0.401993 \\ -au \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.0431894a^3u^2 + 0.355482a^2u^2 + \cdots + 0.548173a + 0.179402 \\ 0.0764120a^3u^2 + 0.475083a^2u^2 + \cdots + 0.508306a + 0.548173 \end{pmatrix}$$

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

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

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -\frac{24}{301}a^3u^2 - \frac{352}{301}a^3u - \frac{568}{301}a^2u^2 + \frac{104}{301}a^3 - \frac{304}{301}a^2u + \frac{512}{301}u^2a + \frac{856}{301}a^2 - \frac{1320}{301}au + \frac{80}{301}u^2 + \frac{992}{301}a + \frac{772}{301}u - \frac{146}{301}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7	$u^{12} - 3u^{11} + \cdots + 30u + 25$
c_2, c_6, c_8 c_{11}	$u^{12} - u^{11} + \cdots + 4u + 7$
c_3, c_5	$(u^2 + u + 1)^6$
c_4, c_9, c_{10}	$(u^3 + u^2 - 1)^4$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^{12} - 9y^{11} + \cdots - 100y + 625$
c_2, c_6, c_8 c_{11}	$y^{12} + 3y^{11} + \cdots + 208y + 49$
c_3, c_5	$(y^2 + y + 1)^6$
c_4, c_9, c_{10}	$(y^3 - y^2 + 2y - 1)^4$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.877439 + 0.744862I$ $a = 1.163500 - 0.426968I$ $b = 1.65706 - 0.08153I$	$3.02413 + 1.23164I$	$-2.49024 - 3.94876I$
$u = 0.877439 + 0.744862I$ $a = -0.014457 + 1.385720I$ $b = -1.70063 + 1.21638I$	$3.02413 - 6.88789I$	$-2.49024 + 9.90765I$
$u = 0.877439 + 0.744862I$ $a = -1.05173 + 0.98574I$ $b = -1.33894 - 0.49201I$	$3.02413 + 1.23164I$	$-2.49024 - 3.94876I$
$u = 0.877439 + 0.744862I$ $a = 0.44248 - 1.76191I$ $b = 1.04486 - 1.20512I$	$3.02413 - 6.88789I$	$-2.49024 + 9.90765I$
$u = 0.877439 - 0.744862I$ $a = 1.163500 + 0.426968I$ $b = 1.65706 + 0.08153I$	$3.02413 - 1.23164I$	$-2.49024 + 3.94876I$
$u = 0.877439 - 0.744862I$ $a = -0.014457 - 1.385720I$ $b = -1.70063 - 1.21638I$	$3.02413 + 6.88789I$	$-2.49024 - 9.90765I$
$u = 0.877439 - 0.744862I$ $a = -1.05173 - 0.98574I$ $b = -1.33894 + 0.49201I$	$3.02413 - 1.23164I$	$-2.49024 + 3.94876I$
$u = 0.877439 - 0.744862I$ $a = 0.44248 + 1.76191I$ $b = 1.04486 + 1.20512I$	$3.02413 + 6.88789I$	$-2.49024 - 9.90765I$
$u = -0.754878$ $a = -0.03389 + 1.64154I$ $b = -1.136780 + 0.774104I$	$-1.11345 - 4.05977I$	$-9.01951 + 6.92820I$
$u = -0.754878$ $a = -0.03389 - 1.64154I$ $b = -1.136780 - 0.774104I$	$-1.11345 + 4.05977I$	$-9.01951 - 6.92820I$

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.754878$ $a=-1.50591+1.02547I$ $b=-0.025581+1.239160I$	$-1.11345-4.05977I$	$-9.01951+6.92820I$
$u=-0.754878$ $a=-1.50591-1.02547I$ $b=-0.025581-1.239160I$	$-1.11345+4.05977I$	$-9.01951-6.92820I$

IV. $\boldsymbol{I^u_4 = \langle -2.45\times 10^9 a^7u^2 + 1.96\times 10^9 a^6u^2 + \cdots - 9.16\times 10^9 a - 1.60\times 10^{10},\ -a^7u^2 + 10a^6u^2 + \cdots + 116a + 33,\ u^3 - u^2 + 1\rangle}$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} a \\ 0.405041a^7u^2 - 0.323630a^6u^2 + \cdots + 1.51360a + 2.65043 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} -0.523501a^7u^2 - 0.0850496a^6u^2 + \cdots - 0.741341a - 0.113356 \\ -0.280191a^7u^2 - 0.209408a^6u^2 + \cdots + 2.44721a + 3.96214 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} u \\ u \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -0.0502811a^7u^2 - 0.392110a^6u^2 + \cdots + 1.40914a + 0.793861 \\ -0.124389a^7u^2 - 0.527176a^6u^2 + \cdots + 9.80960a + 8.21031 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -0.232267a^7u^2 + 0.0446991a^6u^2 + \cdots + 0.0658781a - 1.11663 \\ 0.338024a^7u^2 + 0.201586a^6u^2 + \cdots + 2.61051a - 0.410883 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -0.0502811a^7u^2 - 0.392110a^6u^2 + \cdots + 1.40914a + 0.793861 \\ 0.342964a^7u^2 - 0.298685a^6u^2 + \cdots + 10.1678a + 8.72007 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 0.107236a^7u^2 - 0.103911a^6u^2 + \cdots + 1.36281a + 1.46016 \\ 0.512277a^7u^2 - 0.427541a^6u^2 + \cdots + 1.87642a + 4.11059 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u^2 + 1 \\ -u^2 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u^2 + 1 \\ -u^2 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= \frac{8159408}{12909239}a^7u^2 - \frac{2809816}{1844177}a^6u^2 + \cdots + \frac{257953072}{12909239}a - \frac{2299186}{12909239}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7	$(u^{12} + u^{11} + \cdots - 4u + 1)^2$
c_2, c_6, c_8 c_{11}	$u^{24} + u^{23} + \cdots + 94u + 19$
c_3, c_5	$(u^4 + u^3 - 2u + 1)^6$
c_4, c_9, c_{10}	$(u^3 + u^2 - 1)^8$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$(y^{12} + 3y^{11} + \cdots - 8y + 1)^2$
c_2, c_6, c_8 c_{11}	$y^{24} - 15y^{23} + \cdots + 6136y + 361$
c_3, c_5	$(y^4 - y^3 + 6y^2 - 4y + 1)^6$
c_4, c_9, c_{10}	$(y^3 - y^2 + 2y - 1)^8$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_4^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.877439 + 0.744862I$ $a = -0.781244 - 0.526293I$ $b = -1.57291 - 0.16189I$	$-0.26574 - 6.88789I$	$-14.4902 + 9.9077I$
$u = 0.877439 + 0.744862I$ $a = -0.931824 + 0.522997I$ $b = -0.957160 - 0.116334I$	$-0.265740 + 1.231640I$	$-14.4902 - 3.9488I$
$u = 0.877439 + 0.744862I$ $a = 0.699396 - 0.461137I$ $b = 1.207180 + 0.235183I$	$-0.265740 + 1.231640I$	$-14.4902 - 3.9488I$
$u = 0.877439 + 0.744862I$ $a = -0.065722 + 1.213540I$ $b = 0.418059 + 0.300929I$	$-0.265740 + 1.231640I$	$-14.4902 - 3.9488I$
$u = 0.877439 + 0.744862I$ $a = 1.132860 - 0.777183I$ $b = 0.293478 + 1.043710I$	$-0.26574 - 6.88789I$	$-14.4902 + 9.9077I$
$u = 0.877439 + 0.744862I$ $a = -0.222091 + 1.383150I$ $b = -1.23772 + 1.32475I$	$-0.26574 - 6.88789I$	$-14.4902 + 9.9077I$
$u = 0.877439 + 0.744862I$ $a = -0.446111 + 0.035743I$ $b = 0.961588 - 1.015860I$	$-0.265740 + 1.231640I$	$-14.4902 - 3.9488I$
$u = 0.877439 + 0.744862I$ $a = 0.07494 - 1.57340I$ $b = 1.22513 - 1.04820I$	$-0.26574 - 6.88789I$	$-14.4902 + 9.9077I$
$u = 0.877439 - 0.744862I$ $a = -0.781244 + 0.526293I$ $b = -1.57291 + 0.16189I$	$-0.26574 + 6.88789I$	$-14.4902 - 9.9077I$
$u = 0.877439 - 0.744862I$ $a = -0.931824 - 0.522997I$ $b = -0.957160 + 0.116334I$	$-0.265740 - 1.231640I$	$-14.4902 + 3.9488I$

Solutions to I_4^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.877439 - 0.744862I$ $a = 0.699396 + 0.461137I$ $b = 1.207180 - 0.235183I$	$-0.265740 - 1.231640I$	$-14.4902 + 3.9488I$
$u = 0.877439 - 0.744862I$ $a = -0.065722 - 1.213540I$ $b = 0.418059 - 0.300929I$	$-0.265740 - 1.231640I$	$-14.4902 + 3.9488I$
$u = 0.877439 - 0.744862I$ $a = 1.132860 + 0.777183I$ $b = 0.293478 - 1.043710I$	$-0.26574 + 6.88789I$	$-14.4902 - 9.9077I$
$u = 0.877439 - 0.744862I$ $a = -0.222091 - 1.383150I$ $b = -1.23772 - 1.32475I$	$-0.26574 + 6.88789I$	$-14.4902 - 9.9077I$
$u = 0.877439 - 0.744862I$ $a = -0.446111 - 0.035743I$ $b = 0.961588 + 1.015860I$	$-0.265740 - 1.231640I$	$-14.4902 + 3.9488I$
$u = 0.877439 - 0.744862I$ $a = 0.07494 + 1.57340I$ $b = 1.22513 + 1.04820I$	$-0.26574 + 6.88789I$	$-14.4902 - 9.9077I$
$u = -0.754878$ $a = -0.421556 + 0.043844I$ $b = 1.135590 + 0.509778I$	$-4.40332 - 4.05977I$	$-21.0195 + 6.9282I$
$u = -0.754878$ $a = -0.421556 - 0.043844I$ $b = 1.135590 - 0.509778I$	$-4.40332 + 4.05977I$	$-21.0195 - 6.9282I$
$u = -0.754878$ $a = 1.50433 + 0.67531I$ $b = -0.318223 + 0.033097I$	$-4.40332 - 4.05977I$	$-21.0195 + 6.9282I$
$u = -0.754878$ $a = 1.50433 - 0.67531I$ $b = -0.318223 - 0.033097I$	$-4.40332 + 4.05977I$	$-21.0195 - 6.9282I$

Solutions to I_4^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.754878$ $a = \quad 0.28531 + 2.98501I$ $b = \quad 0.12962 + 3.24360I$	$-4.40332 - 4.05977I$	$-21.0195 + 6.9282I$
$u = -0.754878$ $a = \quad 0.28531 - 2.98501I$ $b = \quad 0.12962 - 3.24360I$	$-4.40332 + 4.05977I$	$-21.0195 - 6.9282I$
$u = -0.754878$ $a = \quad 0.17171 + 4.29685I$ $b = \quad 0.21537 + 2.25332I$	$-4.40332 - 4.05977I$	$-21.0195 + 6.9282I$
$u = -0.754878$ $a = \quad 0.17171 - 4.29685I$ $b = \quad 0.21537 - 2.25332I$	$-4.40332 + 4.05977I$	$-21.0195 - 6.9282I$

V. $\boldsymbol{I_5^u = \langle 6u^{17} + 4u^{16} + \cdots + 2b + 46,\ 23u^{17} + 12u^{16} + \cdots + 4a + 112,\ u^{18} - 8u^{16} + \cdots + 28u^2 - 4\rangle}$

(i) Arc colorings

$$a_5 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -\frac{23}{4}u^{17} - 3u^{16} + \cdots - 57u - 28 \\ -3u^{17} - 2u^{16} + \cdots - 28u - 23 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} \frac{3}{4}u^{17} - u^{16} + \cdots + 3u - 14 \\ -u^{17} + \frac{1}{2}u^{16} + \cdots - 15u + 3 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} \frac{11}{4}u^{17} - u^{16} + \cdots + 29u - 5 \\ -2u^{17} + \frac{3}{2}u^{16} + \cdots - 17u + 19 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -\frac{7}{4}u^{17} - \frac{3}{2}u^{16} + \cdots - 18u - 17 \\ -u^{17} - \frac{1}{2}u^{16} + \cdots - 15u - 3 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} \frac{11}{4}u^{17} - u^{16} + \cdots + 29u - 5 \\ -3u^{17} + 2u^{16} + \cdots - 28u + 23 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -\frac{19}{4}u^{17} - \frac{5}{2}u^{16} + \cdots - 46u - 24 \\ -2u^{17} - \frac{3}{2}u^{16} + \cdots - 17u - 19 \end{pmatrix}$$

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

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -u^{16} + 3u^{14} + 4u^{12} - 33u^{10} + 92u^8 - 152u^6 + 155u^4 - 108u^2 + 24$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7	$u^{18}+2u^{16}-u^{14}-u^{12}+12u^{10}+u^8-20u^6+u^4+20u^2-4$
c_2, c_8	$u^{18}-5u^{16}+\cdots+5u+1$
c_3	$u^{18}+10u^{17}+\cdots+4u+1$
c_4, c_9, c_{10}	$u^{18}-8u^{16}+\cdots+28u^2-4$
c_5	$u^{18}-10u^{17}+\cdots-4u+1$
c_6, c_{11}	$u^{18}-5u^{16}+\cdots-5u+1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$(y^9 + 2y^8 - y^7 - y^6 + 12y^5 + y^4 - 20y^3 + y^2 + 20y - 4)^2$
c_2, c_6, c_8 c_{11}	$y^{18} - 10y^{17} + \cdots - 9y + 1$
c_3, c_5	$y^{18} - 10y^{17} + \cdots - 2y + 1$
c_4, c_9, c_{10}	$(y^9 - 8y^8 + 29y^7 - 68y^6 + 115y^5 - 141y^4 + 126y^3 - 79y^2 + 28y - 4)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_5^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.876962 + 0.699049I$ $a = 0.19361 - 1.61044I$ $b = 1.29556 - 1.27695I$	$0.75125 - 6.53634I$	$-5.69189 + 6.84556I$
$u = 0.876962 - 0.699049I$ $a = 0.19361 + 1.61044I$ $b = 1.29556 + 1.27695I$	$0.75125 + 6.53634I$	$-5.69189 - 6.84556I$
$u = -0.876962 + 0.699049I$ $a = -0.270200 - 0.490177I$ $b = 0.579612 + 0.240984I$	$0.75125 + 6.53634I$	$-5.69189 - 6.84556I$
$u = -0.876962 - 0.699049I$ $a = -0.270200 + 0.490177I$ $b = 0.579612 - 0.240984I$	$0.75125 - 6.53634I$	$-5.69189 + 6.84556I$
$u = -0.955338 + 0.726047I$ $a = 0.179005 + 0.581867I$ $b = -0.593473 - 0.425914I$	$0.516726 - 1.138040I$	$-1.96620 + 2.22050I$
$u = -0.955338 - 0.726047I$ $a = 0.179005 - 0.581867I$ $b = -0.593473 + 0.425914I$	$0.516726 + 1.138040I$	$-1.96620 - 2.22050I$
$u = 0.955338 + 0.726047I$ $a = 0.860786 - 0.442427I$ $b = 1.143560 + 0.202303I$	$0.516726 + 1.138040I$	$-1.96620 - 2.22050I$
$u = 0.955338 - 0.726047I$ $a = 0.860786 + 0.442427I$ $b = 1.143560 - 0.202303I$	$0.516726 - 1.138040I$	$-1.96620 + 2.22050I$
$u = 1.256610 + 0.086547I$ $a = -0.55265 - 1.53743I$ $b = -0.56141 - 1.97978I$	$-6.35463 - 4.54485I$	$-17.3071 + 6.6446I$
$u = 1.256610 - 0.086547I$ $a = -0.55265 + 1.53743I$ $b = -0.56141 + 1.97978I$	$-6.35463 + 4.54485I$	$-17.3071 - 6.6446I$

Solutions to I_5^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.256610+0.086547I$ $a=-0.325560+0.123216I$ $b=\ \ 0.398439-0.183010I$	$-6.35463+4.54485I$	$-17.3071-6.6446I$
$u=-1.256610-0.086547I$ $a=-0.325560-0.123216I$ $b=\ \ 0.398439+0.183010I$	$-6.35463-4.54485I$	$-17.3071+6.6446I$
$u=\ \ 0.649819+0.050171I$ $a=\ \ 0.20068+4.09044I$ $b=-0.07481+2.66812I$	$-3.88718+3.93091I$	$-2.97598-2.31585I$
$u=\ \ 0.649819-0.050171I$ $a=\ \ 0.20068-4.09044I$ $b=-0.07481-2.66812I$	$-3.88718-3.93091I$	$-2.97598+2.31585I$
$u=-0.649819+0.050171I$ $a=\ \ 1.139310+0.512299I$ $b=-0.766045-0.275742I$	$-3.88718-3.93091I$	$-2.97598+2.31585I$
$u=-0.649819-0.050171I$ $a=\ \ 1.139310-0.512299I$ $b=-0.766045+0.275742I$	$-3.88718+3.93091I$	$-2.97598-2.31585I$
$u=\ \ 1.63875$ $a=-1.79237$ $b=-2.93725$	-10.0162	-99.1180
$u=-1.63875$ $a=-0.0575881$ $b=\ \ 0.0943725$	-10.0162	-99.1180

VI. $\boldsymbol{I_6^u = \langle -u^2 + b - u + 1,\ -u^2 + a + 1,\ u^3 + u^2 - 1\rangle}$

(i) Arc colorings

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

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -4u - 6$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_6^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.877439+0.744862I$ $a=-0.78492-1.30714I$ $b=-1.66236-0.56228I$	$3.02413+2.82812I$	$-2.49024-2.97945I$
$u=-0.877439-0.744862I$ $a=-0.78492+1.30714I$ $b=-1.66236+0.56228I$	$3.02413-2.82812I$	$-2.49024+2.97945I$
$u=\ \ 0.754878$ $a=-0.430160$ $b=\ \ 0.324718$	-1.11345	-9.01950

VII. $\boldsymbol{I_7^u = \langle -au - u^2 + b + u - 1,\ -u^2a + a^2 + 2au + u^2 - a + 1,\ u^3 - u^2 + 1\rangle}$

(i) Arc colorings

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

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 4u - 18$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7	$(u^3 + u^2 + 2u + 1)^2$
c_2, c_6, c_8 c_{11}	$u^6 + u^5 + 2u^4 - 4u^2 + 2u - 1$
c_3, c_5	$(u + 1)^6$
c_4, c_9, c_{10}	$(u^3 + u^2 - 1)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$(y^3+3y^2+2y-1)^2$
c_2, c_6, c_8 c_{11}	$y^6+3y^5-4y^4-22y^3+12y^2+4y+1$
c_3, c_5	$(y-1)^6$
c_4, c_9, c_{10}	$(y^3-y^2+2y-1)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_7^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.877439 + 0.744862I$ $a = 0.256475 - 1.286130I$ $b = 1.52067 - 0.37518I$	$-0.26574 - 2.82812I$	$-14.4902 + 2.9794I$
$u = 0.877439 + 0.744862I$ $a = -0.796273 + 1.103550I$ $b = -1.18303 + 0.93746I$	$-0.26574 - 2.82812I$	$-14.4902 + 2.9794I$
$u = 0.877439 - 0.744862I$ $a = 0.256475 + 1.286130I$ $b = 1.52067 + 0.37518I$	$-0.26574 + 2.82812I$	$-14.4902 - 2.9794I$
$u = 0.877439 - 0.744862I$ $a = -0.796273 - 1.103550I$ $b = -1.18303 - 0.93746I$	$-0.26574 + 2.82812I$	$-14.4902 - 2.9794I$
$u = -0.754878$ $a = 0.644735$ $b = 1.83802$	-4.40332	-21.0200
$u = -0.754878$ $a = 2.43486$ $b = 0.486696$	-4.40332	-21.0200

VIII. $I_1^v = \langle a,\ b+1,\ v+1 \rangle$

(i) Arc colorings

$$a_5 = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_{11} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 1 \\ 1 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$

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

$$a_8 = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 1 \\ 1 \end{pmatrix}$$

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

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

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -12$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4, c_7 c_9, c_{10}	u
c_2, c_5, c_8	$u - 1$
c_3, c_6, c_{11}	$u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_4, c_7 c_9, c_{10}	y
c_2, c_3, c_5 c_6, c_8, c_{11}	$y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^v	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$v=-1.00000$ $a=\quad 0$ $b=-1.00000$	-3.28987	-12.0000

IX. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_7	$u(u^3+u^2+2u+1)^3(u^6-2u^4-u^3+3u^2+u-1)^2$ $\cdot(u^{12}-3u^{11}+\cdots+30u+25)(u^{12}+u^{11}+\cdots-4u+1)^2$ $\cdot(u^{14}-u^{13}+\cdots+2u^2+2)$ $\cdot(u^{18}+2u^{16}-u^{14}-u^{12}+12u^{10}+u^8-20u^6+u^4+20u^2-4)$
c_2, c_8	$(u-1)(u^3+u^2+2u+1)(u^6+u^5+2u^4-4u^2+2u-1)$ $\cdot(u^{12}-u^{11}+\cdots-7u+1)(u^{12}-u^{11}+\cdots+4u+7)$ $\cdot(u^{14}-u^{13}+\cdots-u+1)(u^{18}-5u^{16}+\cdots+5u+1)$ $\cdot(u^{24}+u^{23}+\cdots+94u+19)$
c_3	$u^3(u+1)^7(u^2+u+1)^6(u^4+u^3-2u+1)^6$ $\cdot(u^{12}-5u^{11}+\cdots+42u-7)(u^{14}-7u^{13}+\cdots-25u+11)$ $\cdot(u^{18}+10u^{17}+\cdots+4u+1)$
c_4, c_9, c_{10}	$u(u^3-u^2+1)(u^3+u^2-1)^{14}(u^6-4u^5+6u^4-3u^3-3u^2+6u-4)^2$ $\cdot(u^{14}-6u^{13}+\cdots-16u+8)(u^{18}-8u^{16}+\cdots+28u^2-4)$
c_5	$u^3(u-1)(u+1)^6(u^2+u+1)^6(u^4+u^3-2u+1)^6$ $\cdot(u^{12}-5u^{11}+\cdots+42u-7)(u^{14}-7u^{13}+\cdots-25u+11)$ $\cdot(u^{18}-10u^{17}+\cdots-4u+1)$
c_6, c_{11}	$(u+1)(u^3+u^2+2u+1)(u^6+u^5+2u^4-4u^2+2u-1)$ $\cdot(u^{12}-u^{11}+\cdots-7u+1)(u^{12}-u^{11}+\cdots+4u+7)$ $\cdot(u^{14}-u^{13}+\cdots-u+1)(u^{18}-5u^{16}+\cdots-5u+1)$ $\cdot(u^{24}+u^{23}+\cdots+94u+19)$

X. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y(y^3+3y^2+2y-1)^3(y^6-4y^5+10y^4-15y^3+15y^2-7y+1)^2$ $\cdot(y^9+2y^8-y^7-y^6+12y^5+y^4-20y^3+y^2+20y-4)^2$ $\cdot(y^{12}-9y^{11}+\cdots-100y+625)(y^{12}+3y^{11}+\cdots-8y+1)^2$ $\cdot(y^{14}+3y^{13}+\cdots+8y+4)$
c_2, c_6, c_8 c_{11}	$(y-1)(y^3+3y^2+2y-1)(y^6+3y^5+\cdots+4y+1)$ $\cdot(y^{12}+y^{11}+\cdots-59y+1)(y^{12}+3y^{11}+\cdots+208y+49)$ $\cdot(y^{14}+11y^{13}+\cdots+21y+1)(y^{18}-10y^{17}+\cdots-9y+1)$ $\cdot(y^{24}-15y^{23}+\cdots+6136y+361)$
c_3, c_5	$y^3(y-1)^7(y^2+y+1)^6(y^4-y^3+6y^2-4y+1)^6$ $\cdot(y^{12}-5y^{11}+\cdots+154y+49)(y^{14}-7y^{13}+\cdots-493y+121)$ $\cdot(y^{18}-10y^{17}+\cdots-2y+1)$
c_4, c_9, c_{10}	$y(y^3-y^2+2y-1)^{15}(y^6-4y^5+6y^4-5y^3-3y^2-12y+16)^2$ $\cdot(y^9-8y^8+29y^7-68y^6+115y^5-141y^4+126y^3-79y^2+28y-4)^2$ $\cdot(y^{14}-8y^{13}+\cdots+160y+64)$