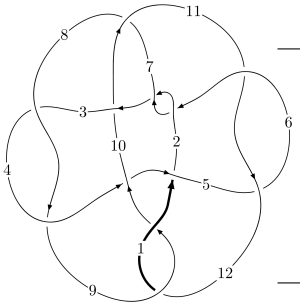
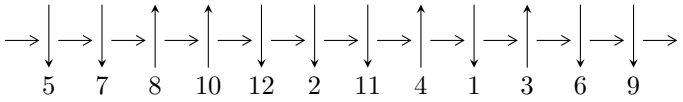
$12a_{1252}$ $(K12a_{1252})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle 1.05887 \times 10^{810} u^{147} - 2.27511 \times 10^{810} u^{146} + \cdots + 8.89868 \times 10^{809} b + 7.85959 \times 10^{811},$$
$$4.95430 \times 10^{810} u^{147} - 1.09395 \times 10^{811} u^{146} + \cdots + 7.11894 \times 10^{810} a + 2.23800 \times 10^{812},$$
$$u^{148} - 3u^{147} + \cdots + 1664u - 64 \rangle$$
$$I_2^u = \langle -3.69653 \times 10^{27} u^{31} + 1.94930 \times 10^{27} u^{30} + \cdots + 1.18072 \times 10^{28} b + 3.70363 \times 10^{28},$$
$$1.05394 \times 10^{28} u^{31} - 9.29787 \times 10^{27} u^{30} + \cdots + 1.18072 \times 10^{28} a - 1.82165 \times 10^{29},\ u^{32} - u^{31} + \cdots - 32u + 4 \rangle$$
$$I_3^u = \langle b + 1,\ a + 2,\ u + 1 \rangle$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 181 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. $\boldsymbol{I_1^u = \langle 1.06 \times 10^{810} u^{147} - 2.28 \times 10^{810} u^{146} + \cdots + 8.90 \times 10^{809} b + 7.86 \times 10^{811},\ 4.95 \times 10^{810} u^{147} - 1.09 \times 10^{811} u^{146} + \cdots + 7.12 \times 10^{810} a + 2.24 \times 10^{812},\ u^{148} - 3u^{147} + \cdots + 1664u - 64 \rangle}$

(i) Arc colorings

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

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

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

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

$$a_{11} = \begin{pmatrix} -0.695932u^{147} + 1.53668u^{146} + \cdots + 1076.78u - 31.4373 \\ -1.18992u^{147} + 2.55668u^{146} + \cdots + 2177.36u - 88.3231 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.858311u^{147} - 1.88226u^{146} + \cdots - 1494.64u + 53.2154 \\ -0.532878u^{147} + 1.17822u^{146} + \cdots + 1069.01u - 42.7677 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 0.493986u^{147} - 1.02000u^{146} + \cdots - 1100.58u + 56.8858 \\ -1.18992u^{147} + 2.55668u^{146} + \cdots + 2177.36u - 88.3231 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.625260u^{147} + 1.36525u^{146} + \cdots + 1031.38u - 32.9940 \\ -0.0734242u^{147} + 0.157657u^{146} + \cdots - 160.009u + 6.08635 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.906475u^{147} - 1.94690u^{146} + \cdots - 1819.41u + 78.0628 \\ -1.02336u^{147} + 2.25345u^{146} + \cdots + 1988.38u - 80.5304 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.345697u^{147} - 0.716800u^{146} + \cdots - 861.448u + 46.6551 \\ -1.48200u^{147} + 3.18936u^{146} + \cdots + 2732.24u - 110.645 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -1.01014u^{147} + 2.19116u^{146} + \cdots + 1778.97u - 69.2538 \\ 0.887000u^{147} - 1.95334u^{146} + \cdots - 1752.90u + 70.5881 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.601293u^{147} - 1.26852u^{146} + \cdots - 1162.24u + 53.7405 \\ -0.984196u^{147} + 2.14628u^{146} + \cdots + 1887.69u - 76.4534 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -2.98535u^{147} + 4.27263u^{146} + \cdots + 9435.88u - 379.745$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{148} + 7u^{147} + \cdots + 309248u - 8192$
c_2, c_6	$u^{148} - 3u^{147} + \cdots + 1664u - 64$
c_3, c_8	$u^{148} - 53u^{146} + \cdots - 69528u - 5398$
c_4	$u^{148} + 12u^{147} + \cdots + 890247u + 39209$
c_5, c_{11}	$u^{148} + 12u^{147} + \cdots - 190801u + 15047$
c_7	$u^{148} + 8u^{147} + \cdots - 1488u + 352$
c_9, c_{12}	$u^{148} - 2u^{147} + \cdots + 5011u + 1511$
c_{10}	$u^{148} + 8u^{147} + \cdots + 92u - 8$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{148} - 29y^{147} + \cdots - 82061557760y + 67108864$
c_2, c_6	$y^{148} - 97y^{147} + \cdots - 472064y + 4096$
c_3, c_8	$y^{148} - 106y^{147} + \cdots - 7039344540y + 29138404$
c_4	$y^{148} - 86y^{147} + \cdots - 56591966597y + 1537345681$
c_5, c_{11}	$y^{148} - 6y^{147} + \cdots - 1680126787y + 226412209$
c_7	$y^{148} + 26y^{147} + \cdots + 1328384y + 123904$
c_9, c_{12}	$y^{148} - 74y^{147} + \cdots - 53825165y + 2283121$
c_{10}	$y^{148} - 92y^{147} + \cdots - 7376y + 64$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.998975$ $a=-9.00379$ $b=-8.88000$	-3.29196	0
$u=-1.001280+0.121814I$ $a=-1.55091-0.67592I$ $b=-0.397573+1.291550I$	$-2.95378+4.74648I$	0
$u=-1.001280-0.121814I$ $a=-1.55091+0.67592I$ $b=-0.397573-1.291550I$	$-2.95378-4.74648I$	0
$u=\ \ 0.979532+0.265553I$ $a=\ \ 2.17297-0.50429I$ $b=\ \ 1.266910-0.019396I$	$-1.46182+0.19004I$	0
$u=\ \ 0.979532-0.265553I$ $a=\ \ 2.17297+0.50429I$ $b=\ \ 1.266910+0.019396I$	$-1.46182-0.19004I$	0
$u=-0.978560+0.088689I$ $a=\ \ 1.54103+0.03967I$ $b=\ \ 0.320832-1.245260I$	$-0.848601+0.712057I$	0
$u=-0.978560-0.088689I$ $a=\ \ 1.54103-0.03967I$ $b=\ \ 0.320832+1.245260I$	$-0.848601-0.712057I$	0
$u=\ \ 1.02679$ $a=-5.67154$ $b=-5.52076$	1.90434	0
$u=-0.487555+0.838326I$ $a=-0.243061-0.400109I$ $b=\ \ 0.446349+0.109960I$	$-3.53924+3.38613I$	0
$u=-0.487555-0.838326I$ $a=-0.243061+0.400109I$ $b=\ \ 0.446349-0.109960I$	$-3.53924-3.38613I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.541062+0.800143I$ $a=-0.426118+0.485811I$ $b=\ \ 0.420514+1.349730I$	$3.71420-5.73870I$	0
$u=-0.541062-0.800143I$ $a=-0.426118-0.485811I$ $b=\ \ 0.420514-1.349730I$	$3.71420+5.73870I$	0
$u=-0.824577+0.627928I$ $a=\ \ 1.54458+0.15924I$ $b=\ \ 0.678655-1.119070I$	$5.34251+4.21313I$	0
$u=-0.824577-0.627928I$ $a=\ \ 1.54458-0.15924I$ $b=\ \ 0.678655+1.119070I$	$5.34251-4.21313I$	0
$u=-0.146305+0.950013I$ $a=-0.439846+0.517499I$ $b=\ \ 0.00412-1.45152I$	$6.77113-4.33030I$	0
$u=-0.146305-0.950013I$ $a=-0.439846-0.517499I$ $b=\ \ 0.00412+1.45152I$	$6.77113+4.33030I$	0
$u=\ \ 0.193329+1.021940I$ $a=-0.1056660-0.0729260I$ $b=-0.424250+0.779453I$	$-0.32151+3.67859I$	0
$u=\ \ 0.193329-1.021940I$ $a=-0.1056660+0.0729260I$ $b=-0.424250-0.779453I$	$-0.32151-3.67859I$	0
$u=\ \ 0.967582+0.428688I$ $a=\ \ 1.039380+0.808691I$ $b=\ \ 0.193773+0.932549I$	$4.48473+0.64595I$	0
$u=\ \ 0.967582-0.428688I$ $a=\ \ 1.039380-0.808691I$ $b=\ \ 0.193773-0.932549I$	$4.48473-0.64595I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.046890 + 0.179815I$ $a = 1.46586 - 0.74459I$ $b = 0.428562 + 0.858984I$	$-3.97448 - 1.36858I$	0
$u = 1.046890 - 0.179815I$ $a = 1.46586 + 0.74459I$ $b = 0.428562 - 0.858984I$	$-3.97448 + 1.36858I$	0
$u = -0.905840 + 0.070464I$ $a = 1.77744 - 0.57611I$ $b = 0.189820 - 1.036770I$	$-0.581103 + 0.163298I$	0
$u = -0.905840 - 0.070464I$ $a = 1.77744 + 0.57611I$ $b = 0.189820 + 1.036770I$	$-0.581103 - 0.163298I$	0
$u = 0.657331 + 0.874331I$ $a = -0.155952 + 0.147906I$ $b = 0.132803 - 1.051790I$	$3.70098 - 1.00312I$	0
$u = 0.657331 - 0.874331I$ $a = -0.155952 - 0.147906I$ $b = 0.132803 + 1.051790I$	$3.70098 + 1.00312I$	0
$u = -1.090600 + 0.085057I$ $a = -0.403894 - 0.573903I$ $b = -0.256619 + 1.059350I$	$-3.25785 - 1.75417I$	0
$u = -1.090600 - 0.085057I$ $a = -0.403894 + 0.573903I$ $b = -0.256619 - 1.059350I$	$-3.25785 + 1.75417I$	0
$u = 0.045113 + 0.902363I$ $a = -0.279687 + 0.249075I$ $b = -0.20404 - 1.47487I$	$7.46086 - 1.02746I$	0
$u = 0.045113 - 0.902363I$ $a = -0.279687 - 0.249075I$ $b = -0.20404 + 1.47487I$	$7.46086 + 1.02746I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.964435+0.528760I$ $a=-1.65767+0.23378I$ $b=-0.82904+1.40310I$	$2.41645+10.70490I$	0
$u=-0.964435-0.528760I$ $a=-1.65767-0.23378I$ $b=-0.82904-1.40310I$	$2.41645-10.70490I$	0
$u=-1.11321$ $a=-1.34445$ $b=-0.817667$	-2.09828	0
$u=\ \ 0.978688+0.531377I$ $a=\ \ 1.49089-0.22737I$ $b=\ \ 0.019577+0.817614I$	$-1.73665-1.00946I$	0
$u=\ \ 0.978688-0.531377I$ $a=\ \ 1.49089+0.22737I$ $b=\ \ 0.019577-0.817614I$	$-1.73665+1.00946I$	0
$u=-0.796699+0.798526I$ $a=\ \ 0.090951-0.497407I$ $b=-0.414434-1.219000I$	$5.48629+1.19754I$	0
$u=-0.796699-0.798526I$ $a=\ \ 0.090951+0.497407I$ $b=-0.414434+1.219000I$	$5.48629-1.19754I$	0
$u=\ \ 0.855690+0.022334I$ $a=-0.501243+0.405395I$ $b=-0.12349+1.74194I$	$6.12738-2.39401I$	0
$u=\ \ 0.855690-0.022334I$ $a=-0.501243-0.405395I$ $b=-0.12349-1.74194I$	$6.12738+2.39401I$	0
$u=\ \ 1.122970+0.221520I$ $a=-1.67603-0.00043I$ $b=-0.456779-1.151730I$	$0.78672-4.82195I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.122970 - 0.221520I$ $a = -1.67603 + 0.00043I$ $b = -0.456779 + 1.151730I$	$0.78672 + 4.82195I$	0
$u = 1.132960 + 0.184979I$ $a = 2.11105 - 0.02549I$ $b = 0.606686 + 1.175000I$	$-1.91226 - 9.97599I$	0
$u = 1.132960 - 0.184979I$ $a = 2.11105 + 0.02549I$ $b = 0.606686 - 1.175000I$	$-1.91226 + 9.97599I$	0
$u = -0.167696 + 0.830715I$ $a = 0.719297 - 0.441119I$ $b = -0.108840 + 1.254980I$	$6.82116 - 1.26098I$	0
$u = -0.167696 - 0.830715I$ $a = 0.719297 + 0.441119I$ $b = -0.108840 - 1.254980I$	$6.82116 + 1.26098I$	0
$u = 1.097170 + 0.393643I$ $a = -1.055370 - 0.836704I$ $b = -0.161125 - 1.329870I$	$4.01216 - 3.42781I$	0
$u = 1.097170 - 0.393643I$ $a = -1.055370 + 0.836704I$ $b = -0.161125 + 1.329870I$	$4.01216 + 3.42781I$	0
$u = 1.162530 + 0.110552I$ $a = -0.49055 - 1.75992I$ $b = -0.24297 - 2.33015I$	$1.71213 + 0.89613I$	0
$u = 1.162530 - 0.110552I$ $a = -0.49055 + 1.75992I$ $b = -0.24297 + 2.33015I$	$1.71213 - 0.89613I$	0
$u = 0.043024 + 0.822795I$ $a = 0.308023 - 0.064297I$ $b = 0.349503 + 1.298690I$	$7.34364 - 4.71295I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.043024 - 0.822795I$ $a = 0.308023 + 0.064297I$ $b = 0.349503 - 1.298690I$	$7.34364 + 4.71295I$	0
$u = 0.925161 + 0.734034I$ $a = -1.226640 + 0.581528I$ $b = -0.423764 - 0.656324I$	$3.16791 - 5.15859I$	0
$u = 0.925161 - 0.734034I$ $a = -1.226640 - 0.581528I$ $b = -0.423764 + 0.656324I$	$3.16791 + 5.15859I$	0
$u = 0.793129 + 0.169532I$ $a = -2.03048 + 0.46907I$ $b = -0.213641 + 0.686279I$	$3.05592 - 3.90355I$	0
$u = 0.793129 - 0.169532I$ $a = -2.03048 - 0.46907I$ $b = -0.213641 - 0.686279I$	$3.05592 + 3.90355I$	0
$u = -0.795481 + 0.119193I$ $a = -1.91223 + 1.13449I$ $b = 0.165990 + 0.828092I$	$-2.36738 - 3.50678I$	0
$u = -0.795481 - 0.119193I$ $a = -1.91223 - 1.13449I$ $b = 0.165990 - 0.828092I$	$-2.36738 + 3.50678I$	0
$u = 0.281703 + 0.739427I$ $a = 0.236624 - 0.047229I$ $b = -0.463989 + 1.181300I$	$1.33669 + 4.28399I$	0
$u = 0.281703 - 0.739427I$ $a = 0.236624 + 0.047229I$ $b = -0.463989 - 1.181300I$	$1.33669 - 4.28399I$	0
$u = -1.158890 + 0.347160I$ $a = 1.153150 + 0.597580I$ $b = 1.21867 + 0.75437I$	$-4.90081 + 2.57699I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.158890-0.347160I$ $a=\ 1.153150-0.597580I$ $b=\ 1.21867-0.75437I$	$-4.90081-2.57699I$	0
$u=\ 1.154930+0.430914I$ $a=\ 1.70525+0.25632I$ $b=\ 0.77052+1.25304I$	$-1.35304-8.69049I$	0
$u=\ 1.154930-0.430914I$ $a=\ 1.70525-0.25632I$ $b=\ 0.77052-1.25304I$	$-1.35304+8.69049I$	0
$u=-0.024414+1.242440I$ $a=-0.101884-0.168785I$ $b=-0.417637+1.323890I$	$5.0171+13.4094I$	0
$u=-0.024414-1.242440I$ $a=-0.101884+0.168785I$ $b=-0.417637-1.323890I$	$5.0171-13.4094I$	0
$u=\ 0.761704+1.000990I$ $a=-0.090886-0.422053I$ $b=\ 0.198590+0.667003I$	$-0.20951+4.22417I$	0
$u=\ 0.761704-1.000990I$ $a=-0.090886+0.422053I$ $b=\ 0.198590-0.667003I$	$-0.20951-4.22417I$	0
$u=\ 1.161310+0.494248I$ $a=-1.396410-0.171798I$ $b=-0.417239-1.192050I$	$1.54271-4.31838I$	0
$u=\ 1.161310-0.494248I$ $a=-1.396410+0.171798I$ $b=-0.417239+1.192050I$	$1.54271+4.31838I$	0
$u=-1.264180+0.035145I$ $a=-1.295710+0.380986I$ $b=-0.813677+0.191919I$	$-2.11744-0.27476I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.264180-0.035145I$ $a=-1.295710-0.380986I$ $b=-0.813677-0.191919I$	$-2.11744+0.27476I$	0
$u=0.731870$ $a=2.81710$ $b=0.223688$	-2.40966	0
$u=0.545625+0.480160I$ $a=0.792980+0.027976I$ $b=0.565064-0.123977I$	$3.27041+0.51628I$	0
$u=0.545625-0.480160I$ $a=0.792980-0.027976I$ $b=0.565064+0.123977I$	$3.27041-0.51628I$	0
$u=0.706244+0.159648I$ $a=2.26520-0.46593I$ $b=-0.229498-0.619494I$	$0.22308-9.03211I$	0
$u=0.706244-0.159648I$ $a=2.26520+0.46593I$ $b=-0.229498+0.619494I$	$0.22308+9.03211I$	0
$u=-1.236630+0.367556I$ $a=-1.325800-0.143074I$ $b=-1.125180-0.151997I$	$-0.39143+7.36342I$	0
$u=-1.236630-0.367556I$ $a=-1.325800+0.143074I$ $b=-1.125180+0.151997I$	$-0.39143-7.36342I$	0
$u=-1.293790+0.016628I$ $a=1.34357+1.04717I$ $b=0.906865+0.487435I$	$-4.14275+4.35163I$	0
$u=-1.293790-0.016628I$ $a=1.34357-1.04717I$ $b=0.906865-0.487435I$	$-4.14275-4.35163I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.259140+0.339361I$ $a=\ \ 1.60009+0.18659I$ $b=\ \ 1.50955-0.01803I$	$-3.96389+12.46680I$	0
$u=-1.259140-0.339361I$ $a=\ \ 1.60009-0.18659I$ $b=\ \ 1.50955+0.01803I$	$-3.96389-12.46680I$	0
$u=\ \ 0.018190+1.311240I$ $a=\ \ 0.100602+0.127253I$ $b=\ \ 0.312202-1.219180I$	$7.58151+6.81855I$	0
$u=\ \ 0.018190-1.311240I$ $a=\ \ 0.100602-0.127253I$ $b=\ \ 0.312202+1.219180I$	$7.58151-6.81855I$	0
$u=\ \ 1.293850+0.262453I$ $a=\ \ 1.105250+0.064065I$ $b=\ \ 0.835200-0.060936I$	$-4.85576-3.29651I$	0
$u=\ \ 1.293850-0.262453I$ $a=\ \ 1.105250-0.064065I$ $b=\ \ 0.835200+0.060936I$	$-4.85576+3.29651I$	0
$u=\ \ 1.110710+0.736036I$ $a=-1.070280+0.296553I$ $b=-0.123917-1.331670I$	$0.79405-3.24013I$	0
$u=\ \ 1.110710-0.736036I$ $a=-1.070280-0.296553I$ $b=-0.123917+1.331670I$	$0.79405+3.24013I$	0
$u=-1.256460+0.462101I$ $a=-1.46740+0.58071I$ $b=-0.166590+0.934241I$	$3.40222+6.01608I$	0
$u=-1.256460-0.462101I$ $a=-1.46740-0.58071I$ $b=-0.166590-0.934241I$	$3.40222-6.01608I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.356080 + 0.033968I$ $a = -0.210703 + 1.315800I$ $b = -0.284359 + 0.384223I$	$-6.46626 - 1.53022I$	0
$u = 1.356080 - 0.033968I$ $a = -0.210703 - 1.315800I$ $b = -0.284359 - 0.384223I$	$-6.46626 + 1.53022I$	0
$u = 1.326900 + 0.328141I$ $a = -1.205220 + 0.188834I$ $b = -1.177380 + 0.012184I$	$-8.88511 - 7.19016I$	0
$u = 1.326900 - 0.328141I$ $a = -1.205220 - 0.188834I$ $b = -1.177380 - 0.012184I$	$-8.88511 + 7.19016I$	0
$u = 0.456630 + 1.298970I$ $a = -0.091367 + 0.222731I$ $b = -0.044328 - 1.116070I$	$3.81077 - 1.17505I$	0
$u = 0.456630 - 1.298970I$ $a = -0.091367 - 0.222731I$ $b = -0.044328 + 1.116070I$	$3.81077 + 1.17505I$	0
$u = -1.284210 + 0.502551I$ $a = 1.50771 - 0.54607I$ $b = 0.164050 - 1.242770I$	$3.17597 + 9.56394I$	0
$u = -1.284210 - 0.502551I$ $a = 1.50771 + 0.54607I$ $b = 0.164050 + 1.242770I$	$3.17597 - 9.56394I$	0
$u = -1.316010 + 0.422732I$ $a = -1.63121 + 0.55445I$ $b = -0.75000 + 1.20772I$	$3.13156 + 9.26884I$	0
$u = -1.316010 - 0.422732I$ $a = -1.63121 - 0.55445I$ $b = -0.75000 - 1.20772I$	$3.13156 - 9.26884I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.338820+0.443912I$ $a=1.53098-0.68187I$ $b=0.50883-1.40431I$	$3.13625+5.88804I$	0
$u=-1.338820-0.443912I$ $a=1.53098+0.68187I$ $b=0.50883+1.40431I$	$3.13625-5.88804I$	0
$u=1.389110+0.248197I$ $a=-0.686632+0.093548I$ $b=-0.756625+0.484787I$	$-7.60449+1.53250I$	0
$u=1.389110-0.248197I$ $a=-0.686632-0.093548I$ $b=-0.756625-0.484787I$	$-7.60449-1.53250I$	0
$u=1.28538+0.59896I$ $a=1.375410-0.010157I$ $b=0.777058+1.034200I$	$-3.70009-9.54538I$	0
$u=1.28538-0.59896I$ $a=1.375410+0.010157I$ $b=0.777058-1.034200I$	$-3.70009+9.54538I$	0
$u=-1.43342+0.04162I$ $a=0.212483+1.055430I$ $b=0.293308+0.767339I$	$-4.48949-1.91087I$	0
$u=-1.43342-0.04162I$ $a=0.212483-1.055430I$ $b=0.293308-0.767339I$	$-4.48949+1.91087I$	0
$u=0.272735+0.473195I$ $a=0.66028-1.54048I$ $b=-0.698261-0.342449I$	$0.30681-9.18810I$	$0.+7.87469I$
$u=0.272735-0.473195I$ $a=0.66028+1.54048I$ $b=-0.698261+0.342449I$	$0.30681+9.18810I$	$0.-7.87469I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.45172+0.34735I$ $a=\ 0.486718+0.179530I$ $b=\ 0.606051+0.077812I$	$-5.51503+1.40723I$	0
$u=-1.45172-0.34735I$ $a=\ 0.486718-0.179530I$ $b=\ 0.606051-0.077812I$	$-5.51503-1.40723I$	0
$u=-0.505474$ $a=-3.41984$ $b=-1.08169$	-2.11691	-2.33680
$u=\ 1.18740+0.91560I$ $a=\ 0.645734-0.378474I$ $b=\ 0.341396+1.294290I$	$-1.62535-5.06069I$	0
$u=\ 1.18740-0.91560I$ $a=\ 0.645734+0.378474I$ $b=\ 0.341396-1.294290I$	$-1.62535+5.06069I$	0
$u=-1.37346+0.62175I$ $a=-1.246160+0.076721I$ $b=-0.57463+1.38599I$	$-4.57713+13.33340I$	0
$u=-1.37346-0.62175I$ $a=-1.246160-0.076721I$ $b=-0.57463-1.38599I$	$-4.57713-13.33340I$	0
$u=-0.11525+1.50803I$ $a=-0.026629-0.311960I$ $b=\ 0.301052+1.161610I$	$-0.50561-6.47180I$	0
$u=-0.11525-1.50803I$ $a=-0.026629+0.311960I$ $b=\ 0.301052-1.161610I$	$-0.50561+6.47180I$	0
$u=\ 0.233046+0.428128I$ $a=-0.225094+0.890786I$ $b=-1.010910+0.576812I$	$0.47288-3.03099I$	$0.+4.98012I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.233046 - 0.428128I$ $a = -0.225094 - 0.890786I$ $b = -1.010910 - 0.576812I$	$0.47288 + 3.03099I$	$0. - 4.98012I$
$u = 1.39794 + 0.59199I$ $a = 1.40083 + 0.29721I$ $b = 0.66660 + 1.45106I$	$0.5957 - 19.7827I$	0
$u = 1.39794 - 0.59199I$ $a = 1.40083 - 0.29721I$ $b = 0.66660 - 1.45106I$	$0.5957 + 19.7827I$	0
$u = 1.39220 + 0.62459I$ $a = -1.298500 - 0.238662I$ $b = -0.59972 - 1.32552I$	$3.31483 - 13.47540I$	0
$u = 1.39220 - 0.62459I$ $a = -1.298500 + 0.238662I$ $b = -0.59972 + 1.32552I$	$3.31483 + 13.47540I$	0
$u = -1.37574 + 0.66868I$ $a = -0.920405 - 0.062597I$ $b = -0.570218 + 0.989043I$	$-6.02833 + 3.51010I$	0
$u = -1.37574 - 0.66868I$ $a = -0.920405 + 0.062597I$ $b = -0.570218 - 0.989043I$	$-6.02833 - 3.51010I$	0
$u = -1.40293 + 0.61925I$ $a = 1.096460 - 0.163641I$ $b = 0.466410 - 1.266650I$	$-1.17104 + 8.05759I$	0
$u = -1.40293 - 0.61925I$ $a = 1.096460 + 0.163641I$ $b = 0.466410 + 1.266650I$	$-1.17104 - 8.05759I$	0
$u = 1.54859 + 0.06380I$ $a = 0.087473 + 1.242880I$ $b = -0.090189 + 0.935616I$	$-3.84919 + 2.91875I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.54859 - 0.06380I$ $a = 0.087473 - 1.242880I$ $b = -0.090189 - 0.935616I$	$-3.84919 - 2.91875I$	0
$u = 0.114152 + 0.427480I$ $a = 0.37862 + 2.16441I$ $b = 0.465593 + 0.332487I$	$3.47120 - 3.96057I$	$-0.76088 + 5.49022I$
$u = 0.114152 - 0.427480I$ $a = 0.37862 - 2.16441I$ $b = 0.465593 - 0.332487I$	$3.47120 + 3.96057I$	$-0.76088 - 5.49022I$
$u = 0.430417$ $a = 1.95398$ $b = 1.13867$	3.11867	11.3360
$u = -0.374119 + 0.157315I$ $a = -2.48685 + 2.77992I$ $b = 0.198397 + 0.115965I$	$-1.15794 + 2.86780I$	$-8.1906 - 15.4182I$
$u = -0.374119 - 0.157315I$ $a = -2.48685 - 2.77992I$ $b = 0.198397 - 0.115965I$	$-1.15794 - 2.86780I$	$-8.1906 + 15.4182I$
$u = -0.221579 + 0.335225I$ $a = -0.465697 + 1.006490I$ $b = -0.195530 + 0.347109I$	$-0.258193 + 0.948961I$	$-5.03205 - 6.93675I$
$u = -0.221579 - 0.335225I$ $a = -0.465697 - 1.006490I$ $b = -0.195530 - 0.347109I$	$-0.258193 - 0.948961I$	$-5.03205 + 6.93675I$
$u = 1.67500 + 0.34258I$ $a = -0.401335 - 0.530466I$ $b = -0.115990 - 1.336160I$	$3.26870 - 2.85344I$	0
$u = 1.67500 - 0.34258I$ $a = -0.401335 + 0.530466I$ $b = -0.115990 + 1.336160I$	$3.26870 + 2.85344I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.171975+0.207533I$ $a=-1.76616+2.61003I$ $b=\ \ 0.477496+0.853959I$	$-1.80489+0.70629I$	$-3.75596+0.77630I$
$u=-0.171975-0.207533I$ $a=-1.76616-2.61003I$ $b=\ \ 0.477496-0.853959I$	$-1.80489-0.70629I$	$-3.75596-0.77630I$
$u=-1.41222+1.09290I$ $a=\ \ 0.450345-0.043560I$ $b=\ \ 0.006493-0.947333I$	$3.20492+1.23648I$	0
$u=-1.41222-1.09290I$ $a=\ \ 0.450345+0.043560I$ $b=\ \ 0.006493+0.947333I$	$3.20492-1.23648I$	0
$u=-1.53614+1.03100I$ $a=-0.353023+0.191300I$ $b=\ \ 0.167074+1.015640I$	$0.71957-5.92465I$	0
$u=-1.53614-1.03100I$ $a=-0.353023-0.191300I$ $b=\ \ 0.167074-1.015640I$	$0.71957+5.92465I$	0
$u=\ \ 0.0449647+0.0386777I$ $a=\ \ 9.8557-13.3234I$ $b=-0.629229+0.034065I$	$-1.93499+0.04260I$	$-5.84770+0.18610I$
$u=\ \ 0.0449647-0.0386777I$ $a=\ \ 9.8557+13.3234I$ $b=-0.629229-0.034065I$	$-1.93499-0.04260I$	$-5.84770-0.18610I$

II.

$\boldsymbol{I_2^u = \langle -3.70\times10^{27}u^{31}+1.95\times10^{27}u^{30}+\cdots+1.18\times10^{28}b+3.70\times10^{28},\ 1.05\times10^{28}u^{31}-9.30\times10^{27}u^{30}+\cdots+1.18\times10^{28}a-1.82\times10^{29},\ u^{32}-u^{31}+\cdots-32u+4\rangle}$

(i) Arc colorings

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

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

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

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

$$a_{11} = \begin{pmatrix} -0.892625u^{31}+0.787473u^{30}+\cdots-72.7200u+15.4282 \\ 0.313073u^{31}-0.165094u^{30}+\cdots+18.0166u-3.13675 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.269708u^{31}-0.223395u^{30}+\cdots+20.7150u+1.40618 \\ -0.115266u^{31}-0.132082u^{30}+\cdots+5.04831u-1.60378 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -1.20570u^{31}+0.952567u^{30}+\cdots-90.7367u+18.5650 \\ 0.313073u^{31}-0.165094u^{30}+\cdots+18.0166u-3.13675 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.0576021u^{31}-0.162207u^{30}+\cdots+18.1224u-6.40769 \\ -0.502394u^{31}+0.0201067u^{30}+\cdots-25.2754u+4.41217 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.784210u^{31}+0.480099u^{30}+\cdots-47.3400u+8.78576 \\ 0.0803291u^{31}+0.0181257u^{30}+\cdots+2.47781u-0.326669 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -1.22228u^{31}+0.723669u^{30}+\cdots-79.4422u+15.9922 \\ 0.144459u^{31}-0.175097u^{30}+\cdots+13.4667u-2.12691 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.246671u^{31}-0.202763u^{30}+\cdots+26.2725u-1.32167 \\ -0.433277u^{31}+0.306649u^{30}+\cdots-20.9282u+2.85911 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.511610u^{31}+0.364549u^{30}+\cdots-34.6526u+8.45934 \\ 0.0210628u^{31}+0.0266265u^{30}+\cdots-2.60628u+0.382990 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{167763504105792835334345478 11}{29518059267578940537975413 38}u^{31}-\frac{984837912925122273368138546}{14759029633789470268987706 69}u^{30}+\cdots+\frac{285880812023794591010467485726}{14759029633789470268987706 69}u-\frac{491300894489246232492823549 89}{14759029633789470268987706 69}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{32} - 4u^{30} + \cdots + 4u - 1$
c_2	$u^{32} + u^{31} + \cdots + 32u + 4$
c_3	$u^{32} + u^{31} + \cdots - 29u - 5$
c_4	$u^{32} - 2u^{31} + \cdots - 10u - 1$
c_5	$u^{32} - 2u^{31} + \cdots + 8u^2 - 1$
c_6	$u^{32} - u^{31} + \cdots - 32u + 4$
c_7	$u^{32} + 8u^{30} + \cdots - 2u + 1$
c_8	$u^{32} - u^{31} + \cdots + 29u - 5$
c_9	$u^{32} + 4u^{31} + \cdots + 8u + 1$
c_{10}	$u^{32} - 6u^{31} + \cdots - 4u - 1$
c_{11}	$u^{32} + 2u^{31} + \cdots + 8u^2 - 1$
c_{12}	$u^{32} - 4u^{31} + \cdots - 8u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{32} - 8y^{31} + \cdots - 108y + 1$
c_2, c_6	$y^{32} - 23y^{31} + \cdots - 384y + 16$
c_3, c_8	$y^{32} - 25y^{31} + \cdots - 2041y + 25$
c_4	$y^{32} - 32y^{31} + \cdots - 262y + 1$
c_5, c_{11}	$y^{32} - 4y^{31} + \cdots - 16y + 1$
c_7	$y^{32} + 16y^{31} + \cdots + 8y + 1$
c_9, c_{12}	$y^{32} - 12y^{31} + \cdots - 22y + 1$
c_{10}	$y^{32} - 26y^{31} + \cdots + 4y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.989035$ $a=-2.74822$ $b=-2.18636$	-3.31580	-20.3770
$u=\ \ 1.02792$ $a=\ \ 5.14338$ $b=\ \ 4.91861$	1.92614	139.610
$u=-0.888724+0.614899I$ $a=\ \ 1.61692+0.61350I$ $b=\ \ 0.412116-0.770259I$	$3.62543+5.41670I$	$3.89177-11.06584I$
$u=-0.888724-0.614899I$ $a=\ \ 1.61692-0.61350I$ $b=\ \ 0.412116+0.770259I$	$3.62543-5.41670I$	$3.89177+11.06584I$
$u=-1.081340+0.365801I$ $a=-2.25275+0.06142I$ $b=-0.702549+0.980578I$	$-0.49714+10.70130I$	$-4.28218-10.76152I$
$u=-1.081340-0.365801I$ $a=-2.25275-0.06142I$ $b=-0.702549-0.980578I$	$-0.49714-10.70130I$	$-4.28218+10.76152I$
$u=\ \ 0.872148+0.741704I$ $a=\ \ 0.788226-0.802935I$ $b=\ \ 0.352112+1.231850I$	$-1.18585-5.35254I$	$-2.31772+8.85992I$
$u=\ \ 0.872148-0.741704I$ $a=\ \ 0.788226+0.802935I$ $b=\ \ 0.352112-1.231850I$	$-1.18585+5.35254I$	$-2.31772-8.85992I$
$u=\ \ 0.019492+0.793963I$ $a=-0.639434+0.223382I$ $b=-0.058380-1.364100I$	$7.22725-3.03526I$	$1.60721+2.24653I$
$u=\ \ 0.019492-0.793963I$ $a=-0.639434-0.223382I$ $b=-0.058380+1.364100I$	$7.22725+3.03526I$	$1.60721-2.24653I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.718754$ $a=-3.15670$ $b=-0.730490$	-2.78642	-20.7790
$u=\ 1.153630+0.627666I$ $a=-1.216750+0.164373I$ $b=-0.184062-1.338370I$	$0.84249-2.90689I$	$-4.00000-7.68903I$
$u=\ 1.153630-0.627666I$ $a=-1.216750-0.164373I$ $b=-0.184062+1.338370I$	$0.84249+2.90689I$	$-4.00000+7.68903I$
$u=\ 0.630297$ $a=-1.30578$ $b=-1.14501$	2.80744	-15.0600
$u=-0.866790+1.062590I$ $a=\ 0.194823+0.024285I$ $b=-0.185375-0.992785I$	$3.18382+0.42893I$	$-4.00000+5.66853I$
$u=-0.866790-1.062590I$ $a=\ 0.194823-0.024285I$ $b=-0.185375+0.992785I$	$3.18382-0.42893I$	$-4.00000-5.66853I$
$u=-1.306560+0.417683I$ $a=\ 1.56250-0.67934I$ $b=\ 0.444831-1.186090I$	$3.16143+7.53864I$	$-4.00000-6.54870I$
$u=-1.306560-0.417683I$ $a=\ 1.56250+0.67934I$ $b=\ 0.444831+1.186090I$	$3.16143-7.53864I$	$-4.00000+6.54870I$
$u=\ 1.385550+0.017479I$ $a=-0.236043-1.084400I$ $b=-0.265120-0.145374I$	$-5.23935+2.46952I$	$-8.95373-2.59121I$
$u=\ 1.385550-0.017479I$ $a=-0.236043+1.084400I$ $b=-0.265120+0.145374I$	$-5.23935-2.46952I$	$-8.95373+2.59121I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.396670+0.117559I$ $a=\ 0.015588+0.457847I$ $b=\ 0.306974+0.090803I$	$-4.93719+1.05608I$	$-6.78147+3.24845I$
$u=-1.396670-0.117559I$ $a=\ 0.015588-0.457847I$ $b=\ 0.306974-0.090803I$	$-4.93719-1.05608I$	$-6.78147-3.24845I$
$u=\ 0.465997+0.299877I$ $a=-0.63375-1.40333I$ $b=\ 0.12655-1.58705I$	$7.05657-2.62192I$	$4.69024+4.09449I$
$u=\ 0.465997-0.299877I$ $a=-0.63375+1.40333I$ $b=\ 0.12655+1.58705I$	$7.05657+2.62192I$	$4.69024-4.09449I$
$u=\ 1.44852+0.05682I$ $a=\ 0.098223+1.333720I$ $b=-0.148844+0.831205I$	$-5.56128+2.25902I$	$-8.88971-3.82266I$
$u=\ 1.44852-0.05682I$ $a=\ 0.098223-1.333720I$ $b=-0.148844-0.831205I$	$-5.56128-2.25902I$	$-8.88971+3.82266I$
$u=-0.91980+1.13013I$ $a=-0.269359-0.145641I$ $b=\ 0.288978+1.015440I$	$0.25423-6.25148I$	$-4.00000+10.69821I$
$u=-0.91980-1.13013I$ $a=-0.269359+0.145641I$ $b=\ 0.288978-1.015440I$	$0.25423+6.25148I$	$-4.00000-10.69821I$
$u=\ 1.39313+0.84915I$ $a=-0.570702-0.138273I$ $b=-0.226166-1.155230I$	$3.68457-2.27679I$	0
$u=\ 1.39313-0.84915I$ $a=-0.570702+0.138273I$ $b=-0.226166+1.155230I$	$3.68457+2.27679I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.246218 + 0.146936I$		
$a = -0.42383 - 4.10183I$	$-1.06107 + 2.42797I$	$-3.75720 + 1.85924I$
$b = 0.410556 + 0.500219I$		
$u = 0.246218 - 0.146936I$		
$a = -0.42383 + 4.10183I$	$-1.06107 - 2.42797I$	$-3.75720 - 1.85924I$
$b = 0.410556 - 0.500219I$		

III. $I_3^u = \langle b+1,\ a+2,\ u+1 \rangle$

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -12$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3, c_8	y
c_2, c_4, c_5 c_6, c_7, c_9 c_{10}, c_{11}, c_{12}	$y-1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.00000$ $a=-2.00000$ $b=-1.00000$	-3.28987	-12.0000

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$u(u^{32}-4u^{30}+\cdots+4u-1)(u^{148}+7u^{147}+\cdots+309248u-8192)$
c_2	$(u-1)(u^{32}+u^{31}+\cdots+32u+4)(u^{148}-3u^{147}+\cdots+1664u-64)$
c_3	$u(u^{32}+u^{31}+\cdots-29u-5)(u^{148}-53u^{146}+\cdots-69528u-5398)$
c_4	$(u+1)(u^{32}-2u^{31}+\cdots-10u-1)$ $\cdot(u^{148}+12u^{147}+\cdots+890247u+39209)$
c_5	$(u+1)(u^{32}-2u^{31}+\cdots+8u^2-1)$ $\cdot(u^{148}+12u^{147}+\cdots-190801u+15047)$
c_6	$(u+1)(u^{32}-u^{31}+\cdots-32u+4)(u^{148}-3u^{147}+\cdots+1664u-64)$
c_7	$(u-1)(u^{32}+8u^{30}+\cdots-2u+1)(u^{148}+8u^{147}+\cdots-1488u+352)$
c_8	$u(u^{32}-u^{31}+\cdots+29u-5)(u^{148}-53u^{146}+\cdots-69528u-5398)$
c_9	$(u-1)(u^{32}+4u^{31}+\cdots+8u+1)(u^{148}-2u^{147}+\cdots+5011u+1511)$
c_{10}	$(u-1)(u^{32}-6u^{31}+\cdots-4u-1)(u^{148}+8u^{147}+\cdots+92u-8)$
c_{11}	$(u-1)(u^{32}+2u^{31}+\cdots+8u^2-1)$ $\cdot(u^{148}+12u^{147}+\cdots-190801u+15047)$
c_{12}	$(u+1)(u^{32}-4u^{31}+\cdots-8u+1)(u^{148}-2u^{147}+\cdots+5011u+1511)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$y(y^{32}-8y^{31}+\cdots-108y+1)$ $\cdot(y^{148}-29y^{147}+\cdots-82061557760y+67108864)$
c_2, c_6	$(y-1)(y^{32}-23y^{31}+\cdots-384y+16)$ $\cdot(y^{148}-97y^{147}+\cdots-472064y+4096)$
c_3, c_8	$y(y^{32}-25y^{31}+\cdots-2041y+25)$ $\cdot(y^{148}-106y^{147}+\cdots-7039344540y+29138404)$
c_4	$(y-1)(y^{32}-32y^{31}+\cdots-262y+1)$ $\cdot(y^{148}-86y^{147}+\cdots-56591966597y+1537345681)$
c_5, c_{11}	$(y-1)(y^{32}-4y^{31}+\cdots-16y+1)$ $\cdot(y^{148}-6y^{147}+\cdots-1680126787y+226412209)$
c_7	$(y-1)(y^{32}+16y^{31}+\cdots+8y+1)$ $\cdot(y^{148}+26y^{147}+\cdots+1328384y+123904)$
c_9, c_{12}	$(y-1)(y^{32}-12y^{31}+\cdots-22y+1)$ $\cdot(y^{148}-74y^{147}+\cdots-53825165y+2283121)$
c_{10}	$(y-1)(y^{32}-26y^{31}+\cdots+4y+1)(y^{148}-92y^{147}+\cdots-7376y+64)$