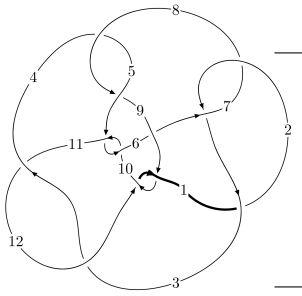
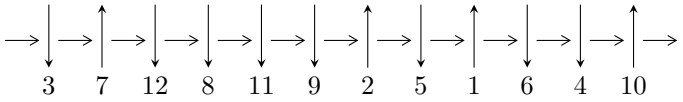
$12a_{0687}$ $(K12a_{0687})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & -7.88489 \times 10^{881} u^{156} + 5.04115 \times 10^{881} u^{155} + \cdots + 1.36721 \times 10^{885} b + 7.83741 \times 10^{885}, \\ & 1.51590 \times 10^{887} u^{156} + 1.49559 \times 10^{887} u^{155} + \cdots + 3.82955 \times 10^{888} a + 1.83695 \times 10^{890}, \\ & u^{157} + u^{156} + \cdots - 13732u + 2801 \rangle \\ I_2^u = \langle & 6.98058 \times 10^{29} u^{45} + 2.34056 \times 10^{31} u^{44} + \cdots + 8.45573 \times 10^{29} b + 5.19010 \times 10^{31}, \\ & - 1.05603 \times 10^{31} u^{45} + 6.43040 \times 10^{31} u^{44} + \cdots + 8.45573 \times 10^{29} a + 1.26598 \times 10^{32}, \\ & u^{46} + 16u^{44} + \cdots - 2u + 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 203 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. $\boldsymbol{I_1^u = \langle -7.88 \times 10^{881} u^{156} + 5.04 \times 10^{881} u^{155} + \cdots + 1.37 \times 10^{885} b + 7.84 \times 10^{885},\ 1.52 \times 10^{887} u^{156} + 1.50 \times 10^{887} u^{155} + \cdots + 3.83 \times 10^{888} a + 1.84 \times 10^{890},\ u^{157} + u^{156} + \cdots - 13732u + 2801 \rangle}$

(i) Arc colorings

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

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

$$a_6 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.0395843u^{156} - 0.0390538u^{155} + \cdots + 6.00367u - 47.9679 \\ 0.000576714u^{156} - 0.000368718u^{155} + \cdots + 16.8195u - 5.73242 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.0401610u^{156} - 0.0386851u^{155} + \cdots - 10.8158u - 42.2355 \\ 0.000576714u^{156} - 0.000368718u^{155} + \cdots + 16.8195u - 5.73242 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0.0292302u^{156} + 0.0194863u^{155} + \cdots + 288.828u - 15.3680 \\ -0.00382346u^{156} + 0.0105651u^{155} + \cdots - 249.524u + 42.7915 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -0.00864217u^{156} - 0.0147723u^{155} + \cdots + 8.42837u - 22.7494 \\ 0.0132793u^{156} - 0.0288943u^{155} + \cdots + 805.874u - 143.749 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.0126184u^{156} + 0.0133006u^{155} + \cdots - 460.460u + 95.0835 \\ -0.0388728u^{156} - 0.0404769u^{155} + \cdots + 87.6322u - 45.1102 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.0360791u^{156} + 0.0376727u^{155} + \cdots + 34.8247u + 5.35530 \\ 0.0150618u^{156} + 0.00404137u^{155} + \cdots + 265.235u - 37.9961 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 0.0142652u^{156} - 0.00878578u^{155} + \cdots + 398.926u - 78.0566 \\ -0.0136596u^{156} - 0.0457142u^{155} + \cdots + 646.176u - 134.161 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.0143267u^{156} + 0.0367680u^{155} + \cdots - 444.852u + 111.218 \\ -0.0316780u^{156} - 0.0280375u^{155} + \cdots - 19.9885u - 19.2345 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.0904845u^{156} + 0.0524635u^{155} + \cdots + 426.624u - 32.7175$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{157} + 75u^{156} + \cdots - 314997534u - 13845841$
c_2, c_7	$u^{157} + u^{156} + \cdots + 6588u + 3721$
c_3, c_{11}	$u^{157} - 4u^{156} + \cdots + 14174519u - 1906367$
c_4, c_8	$u^{157} + 3u^{156} + \cdots + 8u + 1$
c_5, c_{10}	$u^{157} + u^{156} + \cdots - 13732u + 2801$
c_6	$u^{157} - 3u^{156} + \cdots - 346340u + 292121$
c_9, c_{12}	$u^{157} + 4u^{156} + \cdots + 13669u + 2263$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{157} + 39y^{156} + \cdots - 7046372593682426y - 191707312997281$
c_2, c_7	$y^{157} + 75y^{156} + \cdots - 314997534y - 13845841$
c_3, c_{11}	$y^{157} + 114y^{156} + \cdots - 60423847276045y - 3634235138689$
c_4, c_8	$y^{157} - 75y^{156} + \cdots + 6y - 1$
c_5, c_{10}	$y^{157} + 99y^{156} + \cdots - 1215170132y - 7845601$
c_6	$y^{157} - 3y^{156} + \cdots - 13877806866712y - 85334678641$
c_9, c_{12}	$y^{157} + 78y^{156} + \cdots - 296376829y - 5121169$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.983424+0.118249I$ $a=-1.292700-0.555427I$ $b=-1.021630-0.532125I$	$2.09693-1.77887I$	0
$u=-0.983424-0.118249I$ $a=-1.292700+0.555427I$ $b=-1.021630+0.532125I$	$2.09693+1.77887I$	0
$u=-0.953573+0.264717I$ $a=-1.39252-0.44034I$ $b=-0.477503-0.472794I$	$1.38071+2.57286I$	0
$u=-0.953573-0.264717I$ $a=-1.39252+0.44034I$ $b=-0.477503+0.472794I$	$1.38071-2.57286I$	0
$u=0.646783+0.777333I$ $a=-1.035230+0.533846I$ $b=-1.064440+0.310838I$	$-2.42988+0.41909I$	0
$u=0.646783-0.777333I$ $a=-1.035230-0.533846I$ $b=-1.064440-0.310838I$	$-2.42988-0.41909I$	0
$u=0.962659+0.205398I$ $a=1.209760-0.643836I$ $b=1.146630-0.543092I$	$0.74143+7.22667I$	0
$u=0.962659-0.205398I$ $a=1.209760+0.643836I$ $b=1.146630+0.543092I$	$0.74143-7.22667I$	0
$u=-0.320494+0.969075I$ $a=0.051229-0.785137I$ $b=-1.034320+0.663947I$	$-4.31173+3.30916I$	0
$u=-0.320494-0.969075I$ $a=0.051229+0.785137I$ $b=-1.034320-0.663947I$	$-4.31173-3.30916I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.517962 + 0.905954I$ $a = 1.07818 - 0.94510I$ $b = 0.076738 + 0.558359I$	$-0.18244 - 7.76232I$	0
$u = 0.517962 - 0.905954I$ $a = 1.07818 + 0.94510I$ $b = 0.076738 - 0.558359I$	$-0.18244 + 7.76232I$	0
$u = -0.125294 + 1.040410I$ $a = 0.0169154 + 0.0736309I$ $b = -0.28755 - 1.51200I$	$3.81414 - 0.90830I$	0
$u = -0.125294 - 1.040410I$ $a = 0.0169154 - 0.0736309I$ $b = -0.28755 + 1.51200I$	$3.81414 + 0.90830I$	0
$u = -0.050925 + 1.048040I$ $a = 0.142537 + 0.947115I$ $b = 0.355411 - 0.817437I$	$3.47290 + 2.16111I$	0
$u = -0.050925 - 1.048040I$ $a = 0.142537 - 0.947115I$ $b = 0.355411 + 0.817437I$	$3.47290 - 2.16111I$	0
$u = 0.506761 + 0.923868I$ $a = 1.24946 - 1.18931I$ $b = 1.005110 + 0.582922I$	$-1.95131 - 4.96181I$	0
$u = 0.506761 - 0.923868I$ $a = 1.24946 + 1.18931I$ $b = 1.005110 - 0.582922I$	$-1.95131 + 4.96181I$	0
$u = 0.816371 + 0.666474I$ $a = -0.549641 + 0.190487I$ $b = -0.877011 + 0.666561I$	$-3.67100 - 1.69687I$	0
$u = 0.816371 - 0.666474I$ $a = -0.549641 - 0.190487I$ $b = -0.877011 - 0.666561I$	$-3.67100 + 1.69687I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.484533+0.779590I$ $a=-0.354392-1.105070I$ $b=-1.237300+0.270956I$	$-4.40866-4.50850I$	0
$u=-0.484533-0.779590I$ $a=-0.354392+1.105070I$ $b=-1.237300-0.270956I$	$-4.40866+4.50850I$	0
$u=0.134797+0.907142I$ $a=2.13452-1.41578I$ $b=1.053360+0.458463I$	$3.79683-5.21301I$	0
$u=0.134797-0.907142I$ $a=2.13452+1.41578I$ $b=1.053360-0.458463I$	$3.79683+5.21301I$	0
$u=0.151343+0.903789I$ $a=-1.41628-0.05456I$ $b=-1.49638+0.09674I$	$-1.23675-2.85908I$	0
$u=0.151343-0.903789I$ $a=-1.41628+0.05456I$ $b=-1.49638-0.09674I$	$-1.23675+2.85908I$	0
$u=-0.088980+0.911104I$ $a=-2.22518-1.10650I$ $b=-1.073320+0.405134I$	$3.90559-0.80435I$	0
$u=-0.088980-0.911104I$ $a=-2.22518+1.10650I$ $b=-1.073320-0.405134I$	$3.90559+0.80435I$	0
$u=-0.129431+0.895829I$ $a=0.248150+1.140630I$ $b=-0.049560-1.201590I$	$3.28928+1.91897I$	0
$u=-0.129431-0.895829I$ $a=0.248150-1.140630I$ $b=-0.049560+1.201590I$	$3.28928-1.91897I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.612763+0.660646I$ $a=-1.56504-0.86691I$ $b=-1.138800+0.640935I$	$-4.18401+1.65000I$	0
$u=-0.612763-0.660646I$ $a=-1.56504+0.86691I$ $b=-1.138800-0.640935I$	$-4.18401-1.65000I$	0
$u=-0.219192+0.873736I$ $a=1.133280+0.104372I$ $b=1.72318-0.04282I$	$-4.54438+7.47305I$	0
$u=-0.219192-0.873736I$ $a=1.133280-0.104372I$ $b=1.72318+0.04282I$	$-4.54438-7.47305I$	0
$u=-0.382410+0.797108I$ $a=-1.09618-0.93984I$ $b=0.154925+0.411991I$	$0.87708+2.51431I$	0
$u=-0.382410-0.797108I$ $a=-1.09618+0.93984I$ $b=0.154925-0.411991I$	$0.87708-2.51431I$	0
$u=0.526170+0.706597I$ $a=-0.186604-0.941652I$ $b=-0.386499+0.260859I$	$-4.41300-2.16123I$	0
$u=0.526170-0.706597I$ $a=-0.186604+0.941652I$ $b=-0.386499-0.260859I$	$-4.41300+2.16123I$	0
$u=0.236131+0.830375I$ $a=-0.214590-1.160790I$ $b=0.898111+0.411853I$	$-1.20612+0.95128I$	0
$u=0.236131-0.830375I$ $a=-0.214590+1.160790I$ $b=0.898111-0.411853I$	$-1.20612-0.95128I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.056910+0.426045I$ $a=\ \ 1.378430-0.183130I$ $b=\ \ 1.176020+0.065926I$	$-8.95915+1.30472I$	0
$u=-1.056910-0.426045I$ $a=\ \ 1.378430+0.183130I$ $b=\ \ 1.176020-0.065926I$	$-8.95915-1.30472I$	0
$u=-0.854770+0.762921I$ $a=\ \ 0.606990+0.356542I$ $b=\ \ 1.107180+0.636268I$	$-4.12077-1.72135I$	0
$u=-0.854770-0.762921I$ $a=\ \ 0.606990-0.356542I$ $b=\ \ 1.107180-0.636268I$	$-4.12077+1.72135I$	0
$u=\ \ 0.407873+1.071970I$ $a=-0.636057+0.959108I$ $b=-1.037400-0.218361I$	$-1.73344-0.63595I$	0
$u=\ \ 0.407873-1.071970I$ $a=-0.636057-0.959108I$ $b=-1.037400+0.218361I$	$-1.73344+0.63595I$	0
$u=-0.745385+0.876961I$ $a=-1.23068-0.81672I$ $b=-0.981818+0.850390I$	$-3.74907+7.62415I$	0
$u=-0.745385-0.876961I$ $a=-1.23068+0.81672I$ $b=-0.981818-0.850390I$	$-3.74907-7.62415I$	0
$u=-0.746880+0.880965I$ $a=\ \ 0.742828+0.555113I$ $b=\ \ 1.218590+0.372567I$	$-3.66009+3.61781I$	0
$u=-0.746880-0.880965I$ $a=\ \ 0.742828-0.555113I$ $b=\ \ 1.218590-0.372567I$	$-3.66009-3.61781I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.131246+0.823567I$ $a=\ \ 1.194740-0.415293I$ $b=\ \ 1.57754+0.38551I$	$-5.20350-1.29361I$	0
$u=-0.131246-0.823567I$ $a=\ \ 1.194740+0.415293I$ $b=\ \ 1.57754-0.38551I$	$-5.20350+1.29361I$	0
$u=-0.376515+1.110300I$ $a=\ \ 0.0180237-0.0417333I$ $b=-0.66910-1.31854I$	$6.11212+5.28335I$	0
$u=-0.376515-1.110300I$ $a=\ \ 0.0180237+0.0417333I$ $b=-0.66910+1.31854I$	$6.11212-5.28335I$	0
$u=\ \ 0.708612+0.956040I$ $a=\ \ 1.13424-0.86547I$ $b=\ \ 0.780133+0.804599I$	$-2.84437-3.98936I$	0
$u=\ \ 0.708612-0.956040I$ $a=\ \ 1.13424+0.86547I$ $b=\ \ 0.780133-0.804599I$	$-2.84437+3.98936I$	0
$u=\ \ 0.130319+1.185510I$ $a=-1.67725+1.17605I$ $b=-1.033190-0.359624I$	$3.25928-2.97909I$	0
$u=\ \ 0.130319-1.185510I$ $a=-1.67725-1.17605I$ $b=-1.033190+0.359624I$	$3.25928+2.97909I$	0
$u=\ \ 0.727293+0.347210I$ $a=-1.64949-0.12002I$ $b=-1.185650+0.272617I$	$-4.01071+2.09725I$	0
$u=\ \ 0.727293-0.347210I$ $a=-1.64949+0.12002I$ $b=-1.185650-0.272617I$	$-4.01071-2.09725I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.252364+1.169570I$ $a=\ \ 0.543026+0.868177I$ $b=\ \ 0.993662-0.576624I$	$1.88635+2.96312I$	0
$u=-0.252364-1.169570I$ $a=\ \ 0.543026-0.868177I$ $b=\ \ 0.993662+0.576624I$	$1.88635-2.96312I$	0
$u=-0.777869+0.932844I$ $a=-1.73517-0.15009I$ $b=-1.011600+0.477461I$	$4.02418+1.15616I$	0
$u=-0.777869-0.932844I$ $a=-1.73517+0.15009I$ $b=-1.011600-0.477461I$	$4.02418-1.15616I$	0
$u=\ \ 0.770158+0.143087I$ $a=\ \ 1.61615-0.26926I$ $b=\ \ 0.182574-0.638116I$	$-0.29177-8.18913I$	0
$u=\ \ 0.770158-0.143087I$ $a=\ \ 1.61615+0.26926I$ $b=\ \ 0.182574+0.638116I$	$-0.29177+8.18913I$	0
$u=-0.745739+0.150142I$ $a=\ \ 1.64583-0.38540I$ $b=\ \ 1.310780+0.301679I$	$-6.51205-7.33858I$	0
$u=-0.745739-0.150142I$ $a=\ \ 1.64583+0.38540I$ $b=\ \ 1.310780-0.301679I$	$-6.51205+7.33858I$	0
$u=\ \ 0.325677+0.687118I$ $a=\ \ 1.50972-2.19629I$ $b=-0.238481+0.091283I$	$-0.19815-7.87590I$	0
$u=\ \ 0.325677-0.687118I$ $a=\ \ 1.50972+2.19629I$ $b=-0.238481-0.091283I$	$-0.19815+7.87590I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.626984 + 0.406452I$ $a = 1.08105 - 1.25584I$ $b = 1.183510 - 0.175680I$	$-2.66699 + 2.02776I$	0
$u = 0.626984 - 0.406452I$ $a = 1.08105 + 1.25584I$ $b = 1.183510 + 0.175680I$	$-2.66699 - 2.02776I$	0
$u = -0.133704 + 1.245720I$ $a = 1.42031 + 1.39062I$ $b = 0.999596 - 0.472247I$	$2.80674 + 7.95594I$	0
$u = -0.133704 - 1.245720I$ $a = 1.42031 - 1.39062I$ $b = 0.999596 + 0.472247I$	$2.80674 - 7.95594I$	0
$u = 0.339817 + 1.214920I$ $a = 0.0407385 - 0.0339113I$ $b = 0.617308 - 1.167720I$	$7.66052 - 0.37824I$	0
$u = 0.339817 - 1.214920I$ $a = 0.0407385 + 0.0339113I$ $b = 0.617308 + 1.167720I$	$7.66052 + 0.37824I$	0
$u = 0.640165 + 0.365956I$ $a = -0.054069 + 0.221356I$ $b = -0.213191 + 0.801677I$	$-1.75066 + 3.45252I$	0
$u = 0.640165 - 0.365956I$ $a = -0.054069 - 0.221356I$ $b = -0.213191 - 0.801677I$	$-1.75066 - 3.45252I$	0
$u = 0.426623 + 1.190150I$ $a = -1.151290 + 0.678879I$ $b = -1.32224 - 0.59496I$	$-0.15983 - 6.07472I$	0
$u = 0.426623 - 1.190150I$ $a = -1.151290 - 0.678879I$ $b = -1.32224 + 0.59496I$	$-0.15983 + 6.07472I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.021040 + 1.272170I$ $a = -0.693871 + 0.166719I$ $b = 0.536816 + 0.380747I$	$5.49007 + 1.49266I$	0
$u = 0.021040 - 1.272170I$ $a = -0.693871 - 0.166719I$ $b = 0.536816 - 0.380747I$	$5.49007 - 1.49266I$	0
$u = 0.452878 + 1.191700I$ $a = 0.70334 - 1.32291I$ $b = 1.073640 + 0.500654I$	$-1.30030 - 6.59027I$	0
$u = 0.452878 - 1.191700I$ $a = 0.70334 + 1.32291I$ $b = 1.073640 - 0.500654I$	$-1.30030 + 6.59027I$	0
$u = 0.712829 + 0.112855I$ $a = 1.76416 - 0.04418I$ $b = 1.233130 + 0.188271I$	$-4.45501 - 3.38045I$	0
$u = 0.712829 - 0.112855I$ $a = 1.76416 + 0.04418I$ $b = 1.233130 - 0.188271I$	$-4.45501 + 3.38045I$	0
$u = 0.330624 + 1.262430I$ $a = -0.653500 + 0.923207I$ $b = -1.196400 - 0.536399I$	$-0.24784 - 7.12635I$	0
$u = 0.330624 - 1.262430I$ $a = -0.653500 - 0.923207I$ $b = -1.196400 + 0.536399I$	$-0.24784 + 7.12635I$	0
$u = 0.367802 + 1.252950I$ $a = -0.0958780 - 0.0426635I$ $b = -0.094302 + 1.077110I$	$0.22235 - 4.50979I$	0
$u = 0.367802 - 1.252950I$ $a = -0.0958780 + 0.0426635I$ $b = -0.094302 - 1.077110I$	$0.22235 + 4.50979I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.237519+0.641854I$ $a=-1.73385-1.69987I$ $b=\ \ 0.310537+0.119313I$	$0.89751+2.53711I$	0
$u=-0.237519-0.641854I$ $a=-1.73385+1.69987I$ $b=\ \ 0.310537-0.119313I$	$0.89751-2.53711I$	0
$u=\ \ 1.295290+0.267673I$ $a=-1.276210+0.365122I$ $b=-1.032390+0.509616I$	$-0.24810+6.75844I$	0
$u=\ \ 1.295290-0.267673I$ $a=-1.276210-0.365122I$ $b=-1.032390-0.509616I$	$-0.24810-6.75844I$	0
$u=-0.245529+1.303530I$ $a=\ \ 0.95196+1.09592I$ $b=\ \ 1.157910-0.593512I$	$0.96053+3.93024I$	0
$u=-0.245529-1.303530I$ $a=\ \ 0.95196-1.09592I$ $b=\ \ 1.157910+0.593512I$	$0.96053-3.93024I$	0
$u=-1.321120+0.163287I$ $a=\ \ 1.275800+0.314006I$ $b=\ \ 1.130950+0.531846I$	$-2.85813-12.78990I$	0
$u=-1.321120-0.163287I$ $a=\ \ 1.275800-0.314006I$ $b=\ \ 1.130950-0.531846I$	$-2.85813+12.78990I$	0
$u=-0.449007+1.272460I$ $a=-0.540863-1.263800I$ $b=-1.130470+0.491770I$	$-2.97284+11.87020I$	0
$u=-0.449007-1.272460I$ $a=-0.540863+1.263800I$ $b=-1.130470-0.491770I$	$-2.97284-11.87020I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.459011 + 1.277780I$ $a = 0.0366481 + 0.0116698I$ $b = -0.422203 + 1.233630I$	$3.77311 - 12.74680I$	0
$u = 0.459011 - 1.277780I$ $a = 0.0366481 - 0.0116698I$ $b = -0.422203 - 1.233630I$	$3.77311 + 12.74680I$	0
$u = 0.038501 + 1.364540I$ $a = -0.172701 + 0.331003I$ $b = 0.143783 - 0.895306I$	$3.79424 + 1.41084I$	0
$u = 0.038501 - 1.364540I$ $a = -0.172701 - 0.331003I$ $b = 0.143783 + 0.895306I$	$3.79424 - 1.41084I$	0
$u = 0.747351 + 1.143850I$ $a = 1.59189 - 0.40142I$ $b = 1.078190 + 0.539924I$	$4.99973 - 7.83611I$	0
$u = 0.747351 - 1.143850I$ $a = 1.59189 + 0.40142I$ $b = 1.078190 - 0.539924I$	$4.99973 + 7.83611I$	0
$u = 0.052669 + 1.366980I$ $a = 0.530681 + 0.354263I$ $b = -0.654916 + 0.209060I$	$5.66080 + 3.73994I$	0
$u = 0.052669 - 1.366980I$ $a = 0.530681 - 0.354263I$ $b = -0.654916 - 0.209060I$	$5.66080 - 3.73994I$	0
$u = -0.432461 + 1.298810I$ $a = 0.0011687 + 0.0425140I$ $b = 0.403576 + 1.111300I$	$5.93690 + 7.16886I$	0
$u = -0.432461 - 1.298810I$ $a = 0.0011687 - 0.0425140I$ $b = 0.403576 - 1.111300I$	$5.93690 - 7.16886I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.583237 + 1.254380I$ $a = -1.157820 + 0.720669I$ $b = -1.26101 - 0.81969I$	$3.95794 - 12.84080I$	0
$u = 0.583237 - 1.254380I$ $a = -1.157820 - 0.720669I$ $b = -1.26101 + 0.81969I$	$3.95794 + 12.84080I$	0
$u = -0.558556 + 1.279010I$ $a = 1.186450 + 0.705371I$ $b = 1.20369 - 0.77248I$	$5.64130 + 7.32574I$	0
$u = -0.558556 - 1.279010I$ $a = 1.186450 - 0.705371I$ $b = 1.20369 + 0.77248I$	$5.64130 - 7.32574I$	0
$u = -0.600972$ $a = -1.58786$ $b = -0.987414$	-1.63262	-5.64780
$u = -0.650780 + 1.242880I$ $a = -0.721459 - 0.965293I$ $b = -1.036010 + 0.338172I$	$-6.24860 + 4.81413I$	0
$u = -0.650780 - 1.242880I$ $a = -0.721459 + 0.965293I$ $b = -1.036010 - 0.338172I$	$-6.24860 - 4.81413I$	0
$u = -0.419493 + 0.410791I$ $a = -0.366936 + 0.207966I$ $b = 0.071393 + 0.501900I$	$-0.277721 + 0.985210I$	$-2.94676 - 4.34748I$
$u = -0.419493 - 0.410791I$ $a = -0.366936 - 0.207966I$ $b = 0.071393 - 0.501900I$	$-0.277721 - 0.985210I$	$-2.94676 + 4.34748I$
$u = -0.045202 + 0.583511I$ $a = -0.40908 + 2.75321I$ $b = 0.036897 + 0.229878I$	$3.76914 + 2.68398I$	$-1.73025 - 4.97882I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.045202-0.583511I$ $a=-0.40908-2.75321I$ $b=\ \ 0.036897-0.229878I$	$3.76914-2.68398I$	$-1.73025+4.97882I$
$u=\ \ 0.31455+1.40476I$ $a=-0.936790+0.535740I$ $b=-1.275950-0.560640I$	$-0.27940-6.57413I$	0
$u=\ \ 0.31455-1.40476I$ $a=-0.936790-0.535740I$ $b=-1.275950+0.560640I$	$-0.27940+6.57413I$	0
$u=-0.37046+1.39500I$ $a=\ \ 0.174358+0.235685I$ $b=\ \ 0.435596+0.596467I$	$6.91568+3.28190I$	0
$u=-0.37046-1.39500I$ $a=\ \ 0.174358-0.235685I$ $b=\ \ 0.435596-0.596467I$	$6.91568-3.28190I$	0
$u=-0.55840+1.37381I$ $a=\ \ 1.302700+0.526491I$ $b=\ \ 1.053230-0.564498I$	$4.94987+3.50091I$	0
$u=-0.55840-1.37381I$ $a=\ \ 1.302700-0.526491I$ $b=\ \ 1.053230+0.564498I$	$4.94987-3.50091I$	0
$u=-0.189625+0.477716I$ $a=\ \ 1.01655+2.21109I$ $b=\ \ 0.091875-1.127070I$	$3.84039-2.25089I$	$-3.80296+1.82490I$
$u=-0.189625-0.477716I$ $a=\ \ 1.01655-2.21109I$ $b=\ \ 0.091875+1.127070I$	$3.84039+2.25089I$	$-3.80296-1.82490I$
$u=\ \ 0.47707+1.41602I$ $a=-0.322083+0.462198I$ $b=-0.610178+0.371512I$	$5.39444+2.59006I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.47707 - 1.41602I$ $a = -0.322083 - 0.462198I$ $b = -0.610178 - 0.371512I$	$5.39444 - 2.59006I$	0
$u = 0.05339 + 1.49970I$ $a = -0.369410 + 0.314745I$ $b = 0.646626 - 0.454842I$	$3.97294 - 4.06874I$	0
$u = 0.05339 - 1.49970I$ $a = -0.369410 - 0.314745I$ $b = 0.646626 + 0.454842I$	$3.97294 + 4.06874I$	0
$u = -0.00308 + 1.50593I$ $a = 0.394477 + 0.317192I$ $b = -0.759637 - 0.233739I$	$4.44799 + 0.34836I$	0
$u = -0.00308 - 1.50593I$ $a = 0.394477 - 0.317192I$ $b = -0.759637 + 0.233739I$	$4.44799 - 0.34836I$	0
$u = 0.339641 + 0.357394I$ $a = -1.95697 + 2.08399I$ $b = -0.331030 + 0.511934I$	$3.82757 + 2.65997I$	$-0.57540 - 3.70129I$
$u = 0.339641 - 0.357394I$ $a = -1.95697 - 2.08399I$ $b = -0.331030 - 0.511934I$	$3.82757 - 2.65997I$	$-0.57540 + 3.70129I$
$u = 0.21715 + 1.49136I$ $a = 0.227310 + 0.018632I$ $b = 0.483598 - 0.681073I$	$6.64814 + 1.30339I$	0
$u = 0.21715 - 1.49136I$ $a = 0.227310 - 0.018632I$ $b = 0.483598 + 0.681073I$	$6.64814 - 1.30339I$	0
$u = 0.63759 + 1.36898I$ $a = -1.42342 + 0.38493I$ $b = -0.963488 - 0.453805I$	$2.74883 + 2.39891I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.63759 - 1.36898I$ $a = -1.42342 - 0.38493I$ $b = -0.963488 + 0.453805I$	$2.74883 - 2.39891I$	0
$u = 0.66747 + 1.35645I$ $a = 1.27212 - 0.68061I$ $b = 1.23066 + 0.69717I$	$3.31662 - 13.61000I$	0
$u = 0.66747 - 1.35645I$ $a = 1.27212 + 0.68061I$ $b = 1.23066 - 0.69717I$	$3.31662 + 13.61000I$	0
$u = -0.65877 + 1.38267I$ $a = -1.205290 - 0.715124I$ $b = -1.26938 + 0.73389I$	$1.0314 + 19.6500I$	0
$u = -0.65877 - 1.38267I$ $a = -1.205290 + 0.715124I$ $b = -1.26938 - 0.73389I$	$1.0314 - 19.6500I$	0
$u = -0.74616 + 1.36765I$ $a = -1.247220 - 0.503616I$ $b = -1.262280 + 0.580258I$	$-3.33829 + 10.24030I$	0
$u = -0.74616 - 1.36765I$ $a = -1.247220 + 0.503616I$ $b = -1.262280 - 0.580258I$	$-3.33829 - 10.24030I$	0
$u = -0.299514 + 0.289300I$ $a = -0.416865 + 0.451108I$ $b = -0.106561 + 0.395371I$	$-0.229203 + 0.954098I$	$-4.84344 - 6.37951I$
$u = -0.299514 - 0.289300I$ $a = -0.416865 - 0.451108I$ $b = -0.106561 - 0.395371I$	$-0.229203 - 0.954098I$	$-4.84344 + 6.37951I$
$u = 1.61514 + 0.14346I$ $a = 1.226030 - 0.326188I$ $b = 0.862979 - 0.261391I$	$-6.00712 + 0.18199I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.61514 - 0.14346I$ $a = 1.226030 + 0.326188I$ $b = 0.862979 + 0.261391I$	$-6.00712 - 0.18199I$	0
$u = -1.55840 + 0.55366I$ $a = 1.132040 + 0.376470I$ $b = 0.964827 + 0.338639I$	$-6.51689 - 2.37044I$	0
$u = -1.55840 - 0.55366I$ $a = 1.132040 - 0.376470I$ $b = 0.964827 - 0.338639I$	$-6.51689 + 2.37044I$	0
$u = -0.31030 + 1.75527I$ $a = -0.380227 - 0.067746I$ $b = -0.708452 - 0.391000I$	$3.65122 - 6.01500I$	0
$u = -0.31030 - 1.75527I$ $a = -0.380227 + 0.067746I$ $b = -0.708452 + 0.391000I$	$3.65122 + 6.01500I$	0
$u = 0.0415460 + 0.1091190I$ $a = 0.19195 - 10.07410I$ $b = -0.764937 + 0.543673I$	$-3.63585 + 1.86155I$	$-7.84133 - 2.40057I$
$u = 0.0415460 - 0.1091190I$ $a = 0.19195 + 10.07410I$ $b = -0.764937 - 0.543673I$	$-3.63585 - 1.86155I$	$-7.84133 + 2.40057I$

II. $I_2^u = \langle 6.98\times10^{29}u^{45}+2.34\times10^{31}u^{44}+\cdots+8.46\times10^{29}b+5.19\times10^{31},\ -1.06\times10^{31}u^{45}+6.43\times10^{31}u^{44}+\cdots+8.46\times10^{29}a+1.27\times10^{32},\ u^{46}+16u^{44}+\cdots-2u+1\rangle$

(i) Arc colorings

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

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

$$a_6 = \begin{pmatrix}1\\u^2\end{pmatrix}$$

$$a_8 = \begin{pmatrix}12.4890u^{45}-76.0478u^{44}+\cdots+315.048u-149.719\\-0.825545u^{45}-27.6802u^{44}+\cdots+119.922u-61.3796\end{pmatrix}$$

$$a_9 = \begin{pmatrix}13.3145u^{45}-48.3677u^{44}+\cdots+195.126u-88.3391\\-0.825545u^{45}-27.6802u^{44}+\cdots+119.922u-61.3796\end{pmatrix}$$

$$a_7 = \begin{pmatrix}-232.757u^{45}-37.4947u^{44}+\cdots-300.055u-75.4728\\61.5670u^{45}-4.53304u^{44}+\cdots+133.664u-4.35858\end{pmatrix}$$

$$a_4 = \begin{pmatrix}-45.2136u^{45}-0.906138u^{44}+\cdots-91.8951u+3.72063\\-77.8528u^{45}+15.2484u^{44}+\cdots-198.612u+20.5131\end{pmatrix}$$

$$a_{12} = \begin{pmatrix}-4.97679u^{45}+33.6336u^{44}+\cdots-147.929u+66.4505\\0.0938617u^{45}+22.6669u^{44}+\cdots-83.7066u+45.2136\end{pmatrix}$$

$$a_3 = \begin{pmatrix}14.6893u^{45}+7.81269u^{44}+\cdots-18.6536u+19.0926\\-106.531u^{45}+16.3146u^{44}+\cdots-266.818u+22.8050\end{pmatrix}$$

$$a_2 = \begin{pmatrix}24.6519u^{45}+83.4159u^{44}+\cdots-279.280u+161.009\\-111.897u^{45}+23.1366u^{44}+\cdots-330.581u+48.1834\end{pmatrix}$$

$$a_{10} = \begin{pmatrix}u\\u^3+u\end{pmatrix}$$

$$a_1 = \begin{pmatrix}-6.02912u^{45}+32.2944u^{44}+\cdots-141.375u+61.9359\\-0.00125363u^{45}+21.9733u^{44}+\cdots-78.7784u+42.0383\end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 1715.32u^{45}-169.143u^{44}+\cdots+3931.88u-329.488$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{46} - 28u^{45} + \cdots - 34u + 1$
c_2	$u^{46} + 14u^{44} + \cdots - 2u + 1$
c_3	$u^{46} + 3u^{45} + \cdots - u + 1$
c_4	$u^{46} + 2u^{45} + \cdots + 2u + 1$
c_5	$u^{46} + 16u^{44} + \cdots - 2u + 1$
c_6	$u^{46} - 6u^{45} + \cdots - 32u + 1$
c_7	$u^{46} + 14u^{44} + \cdots + 2u + 1$
c_8	$u^{46} - 2u^{45} + \cdots - 2u + 1$
c_9	$u^{46} + 7u^{45} + \cdots - u + 1$
c_{10}	$u^{46} + 16u^{44} + \cdots + 2u + 1$
c_{11}	$u^{46} - 3u^{45} + \cdots + u + 1$
c_{12}	$u^{46} - 7u^{45} + \cdots + u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{46} + 4y^{45} + \cdots - 102y + 1$
c_2, c_7	$y^{46} + 28y^{45} + \cdots + 34y + 1$
c_3, c_{11}	$y^{46} + 43y^{45} + \cdots + 33y + 1$
c_4, c_8	$y^{46} - 22y^{45} + \cdots - 30y + 1$
c_5, c_{10}	$y^{46} + 32y^{45} + \cdots + 36y + 1$
c_6	$y^{46} - 2y^{45} + \cdots - 176y + 1$
c_9, c_{12}	$y^{46} + 23y^{45} + \cdots + 29y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.676863+0.816582I$ $a=\ \ 0.791546+0.111888I$ $b=\ \ 0.927988+0.565609I$	$-3.99808+0.78285I$	0
$u=-0.676863-0.816582I$ $a=\ \ 0.791546-0.111888I$ $b=\ \ 0.927988-0.565609I$	$-3.99808-0.78285I$	0
$u=-0.468464+0.960672I$ $a=\ \ 2.08926+0.38920I$ $b=\ \ 1.045440-0.366605I$	$3.38448+0.12988I$	0
$u=-0.468464-0.960672I$ $a=\ \ 2.08926-0.38920I$ $b=\ \ 1.045440+0.366605I$	$3.38448-0.12988I$	0
$u=-0.570993+0.955021I$ $a=-0.90280-1.20361I$ $b=-0.732434+0.731594I$	$-3.62454+4.03537I$	0
$u=-0.570993-0.955021I$ $a=-0.90280+1.20361I$ $b=-0.732434-0.731594I$	$-3.62454-4.03537I$	0
$u=\ \ 0.344288+1.080260I$ $a=-1.88319+0.92693I$ $b=-1.069420-0.438125I$	$3.87486-6.14773I$	0
$u=\ \ 0.344288-1.080260I$ $a=-1.88319-0.92693I$ $b=-1.069420+0.438125I$	$3.87486+6.14773I$	0
$u=-0.484006+0.700488I$ $a=-2.55180-1.81919I$ $b=-0.612911+0.326726I$	$-0.44557+8.42071I$	$-7.5330-14.9264I$
$u=-0.484006-0.700488I$ $a=-2.55180+1.81919I$ $b=-0.612911-0.326726I$	$-0.44557-8.42071I$	$-7.5330+14.9264I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.000930+1.220050I$ $a=\ \ 0.155121-0.192745I$ $b=-0.101023-0.853366I$	$6.58963+2.46710I$	0
$u=-0.000930-1.220050I$ $a=\ \ 0.155121+0.192745I$ $b=-0.101023+0.853366I$	$6.58963-2.46710I$	0
$u=\ \ 0.001428+1.221570I$ $a=\ \ 0.062926+0.213904I$ $b=-0.158676-1.323780I$	$4.80139-1.45777I$	0
$u=\ \ 0.001428-1.221570I$ $a=\ \ 0.062926-0.213904I$ $b=-0.158676+1.323780I$	$4.80139+1.45777I$	0
$u=\ \ 0.204820+1.242200I$ $a=-0.97074+1.06116I$ $b=-1.179020-0.578827I$	$1.25425-4.52810I$	0
$u=\ \ 0.204820-1.242200I$ $a=-0.97074-1.06116I$ $b=-1.179020+0.578827I$	$1.25425+4.52810I$	0
$u=\ \ 0.659118+1.075260I$ $a=\ \ 0.940587-0.708231I$ $b=\ \ 1.015810+0.706124I$	$-4.13669-6.04607I$	0
$u=\ \ 0.659118-1.075260I$ $a=\ \ 0.940587+0.708231I$ $b=\ \ 1.015810-0.706124I$	$-4.13669+6.04607I$	0
$u=\ \ 0.426097+0.585771I$ $a=-0.318290+0.144767I$ $b=-1.38869+0.44768I$	$-6.06491+1.20785I$	$-12.59517-0.27041I$
$u=\ \ 0.426097-0.585771I$ $a=-0.318290-0.144767I$ $b=-1.38869-0.44768I$	$-6.06491-1.20785I$	$-12.59517+0.27041I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.002666+0.723712I$ $a=\ 0.242370+1.244350I$ $b=\ 0.171804-1.355690I$	$2.76940+1.46244I$	$-10.80628+1.44488I$
$u=-0.002666-0.723712I$ $a=\ 0.242370-1.244350I$ $b=\ 0.171804+1.355690I$	$2.76940-1.46244I$	$-10.80628-1.44488I$
$u=\ 0.483445+0.537141I$ $a=\ 3.17660-0.95835I$ $b=\ 0.708313+0.223508I$	$0.38412-2.98964I$	$-7.56697+7.19001I$
$u=\ 0.483445-0.537141I$ $a=\ 3.17660+0.95835I$ $b=\ 0.708313-0.223508I$	$0.38412+2.98964I$	$-7.56697-7.19001I$
$u=\ 0.000938+0.721199I$ $a=\ 0.39541+2.45962I$ $b=\ 0.093863-0.871229I$	$4.55512-2.46822I$	$9.60981+3.90298I$
$u=\ 0.000938-0.721199I$ $a=\ 0.39541-2.45962I$ $b=\ 0.093863+0.871229I$	$4.55512+2.46822I$	$9.60981-3.90298I$
$u=-0.142737+1.383180I$ $a=\ 0.523644-0.220957I$ $b=-0.612740-0.242595I$	$5.74425+2.85384I$	0
$u=-0.142737-1.383180I$ $a=\ 0.523644+0.220957I$ $b=-0.612740+0.242595I$	$5.74425-2.85384I$	0
$u=\ 1.372530+0.273357I$ $a=-1.034930+0.397431I$ $b=-0.994210+0.257064I$	$-6.71587+0.29656I$	0
$u=\ 1.372530-0.273357I$ $a=-1.034930-0.397431I$ $b=-0.994210-0.257064I$	$-6.71587-0.29656I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.23600+1.39593I$ $a=\ 0.976871+0.599797I$ $b=\ 1.324500-0.469051I$	$-0.68123+7.11158I$	0
$u=-0.23600-1.39593I$ $a=\ 0.976871-0.599797I$ $b=\ 1.324500+0.469051I$	$-0.68123-7.11158I$	0
$u=\ 0.158810+0.541604I$ $a=-0.124709-0.269532I$ $b=-1.54394-0.11037I$	$-5.02859-6.89860I$	$-8.91093+2.64344I$
$u=\ 0.158810-0.541604I$ $a=-0.124709+0.269532I$ $b=-1.54394+0.11037I$	$-5.02859+6.89860I$	$-8.91093-2.64344I$
$u=\ 0.35416+1.39298I$ $a=-0.071380-0.562893I$ $b=\ 0.722538-0.231352I$	$4.76474+2.60239I$	0
$u=\ 0.35416-1.39298I$ $a=-0.071380+0.562893I$ $b=\ 0.722538+0.231352I$	$4.76474-2.60239I$	0
$u=\ 0.05859+1.44264I$ $a=\ 0.438150+0.612443I$ $b=-0.515258-0.107566I$	$4.75078+0.88801I$	0
$u=\ 0.05859-1.44264I$ $a=\ 0.438150-0.612443I$ $b=-0.515258+0.107566I$	$4.75078-0.88801I$	0
$u=-1.43485+0.25258I$ $a=-1.35650-0.48488I$ $b=-0.926462-0.210533I$	$-6.39713-1.58234I$	0
$u=-1.43485-0.25258I$ $a=-1.35650+0.48488I$ $b=-0.926462+0.210533I$	$-6.39713+1.58234I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.300761 + 0.351722I$ $a = 1.09136 - 2.10593I$ $b = 1.007260 - 0.210584I$	$-1.78149 + 2.47753I$	$-2.51173 - 4.66389I$
$u = 0.300761 - 0.351722I$ $a = 1.09136 + 2.10593I$ $b = 1.007260 + 0.210584I$	$-1.78149 - 2.47753I$	$-2.51173 + 4.66389I$
$u = -0.17711 + 1.58522I$ $a = 0.181510 + 0.621055I$ $b = 0.583306 - 0.013344I$	$3.18920 - 4.97064I$	0
$u = -0.17711 - 1.58522I$ $a = 0.181510 - 0.621055I$ $b = 0.583306 + 0.013344I$	$3.18920 + 4.97064I$	0
$u = -0.170363 + 0.323945I$ $a = -0.851006 - 0.105705I$ $b = 1.233960 + 0.010776I$	$-2.25331 + 2.28208I$	$-5.92670 - 2.02422I$
$u = -0.170363 - 0.323945I$ $a = -0.851006 + 0.105705I$ $b = 1.233960 - 0.010776I$	$-2.25331 - 2.28208I$	$-5.92670 + 2.02422I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{46}-28u^{45}+\cdots-34u+1)$ $\cdot(u^{157}+75u^{156}+\cdots-314997534u-13845841)$
c_2	$(u^{46}+14u^{44}+\cdots-2u+1)(u^{157}+u^{156}+\cdots+6588u+3721)$
c_3	$(u^{46}+3u^{45}+\cdots-u+1)(u^{157}-4u^{156}+\cdots+1.41745\times10^{7}u-1906367)$
c_4	$(u^{46}+2u^{45}+\cdots+2u+1)(u^{157}+3u^{156}+\cdots+8u+1)$
c_5	$(u^{46}+16u^{44}+\cdots-2u+1)(u^{157}+u^{156}+\cdots-13732u+2801)$
c_6	$(u^{46}-6u^{45}+\cdots-32u+1)(u^{157}-3u^{156}+\cdots-346340u+292121)$
c_7	$(u^{46}+14u^{44}+\cdots+2u+1)(u^{157}+u^{156}+\cdots+6588u+3721)$
c_8	$(u^{46}-2u^{45}+\cdots-2u+1)(u^{157}+3u^{156}+\cdots+8u+1)$
c_9	$(u^{46}+7u^{45}+\cdots-u+1)(u^{157}+4u^{156}+\cdots+13669u+2263)$
c_{10}	$(u^{46}+16u^{44}+\cdots+2u+1)(u^{157}+u^{156}+\cdots-13732u+2801)$
c_{11}	$(u^{46}-3u^{45}+\cdots+u+1)(u^{157}-4u^{156}+\cdots+1.41745\times10^{7}u-1906367)$
c_{12}	$(u^{46}-7u^{45}+\cdots+u+1)(u^{157}+4u^{156}+\cdots+13669u+2263)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{46}+4y^{45}+\cdots-102y+1)$ $\cdot(y^{157}+39y^{156}+\cdots-7046372593682426y-191707312997281)$
c_2, c_7	$(y^{46}+28y^{45}+\cdots+34y+1)$ $\cdot(y^{157}+75y^{156}+\cdots-314997534y-13845841)$
c_3, c_{11}	$(y^{46}+43y^{45}+\cdots+33y+1)$ $\cdot(y^{157}+114y^{156}+\cdots-60423847276045y-3634235138689)$
c_4, c_8	$(y^{46}-22y^{45}+\cdots-30y+1)(y^{157}-75y^{156}+\cdots+6y-1)$
c_5, c_{10}	$(y^{46}+32y^{45}+\cdots+36y+1)$ $\cdot(y^{157}+99y^{156}+\cdots-1215170132y-7845601)$
c_6	$(y^{46}-2y^{45}+\cdots-176y+1)$ $\cdot(y^{157}-3y^{156}+\cdots-13877806866712y-85334678641)$
c_9, c_{12}	$(y^{46}+23y^{45}+\cdots+29y+1)$ $\cdot(y^{157}+78y^{156}+\cdots-296376829y-5121169)$