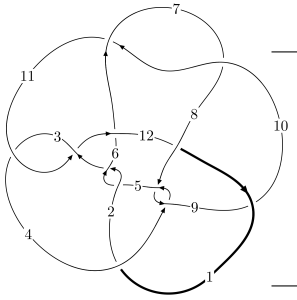
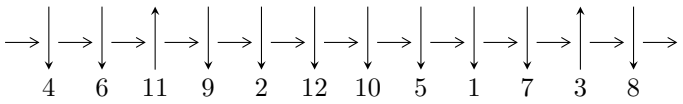
$12a_{0983}$ $(K12a_{0983})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 9.08439 \times 10^{636} u^{154} - 5.67777 \times 10^{637} u^{153} + \cdots + 4.26910 \times 10^{637} b + 4.02846 \times 10^{640}, \\ & - 1.96555 \times 10^{640} u^{154} + 1.40998 \times 10^{641} u^{153} + \cdots + 8.32047 \times 10^{640} a - 1.35238 \times 10^{644}, \\ & u^{155} - 5u^{154} + \cdots + 5977u - 1949 \rangle \\ I_2^u = \langle & -2.54107 \times 10^{23} u^{40} - 6.68625 \times 10^{24} u^{39} + \cdots + 4.56220 \times 10^{23} b - 1.25601 \times 10^{25}, \\ & - 6.16269 \times 10^{22} u^{40} + 3.14727 \times 10^{22} u^{39} + \cdots + 6.42563 \times 10^{21} a + 4.53567 \times 10^{22}, \\ & u^{41} + 12u^{39} + \cdots + 2u + 1 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 196 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. $\boldsymbol{I_1^u = \langle 9.08 \times 10^{636} u^{154} - 5.68 \times 10^{637} u^{153} + \cdots + 4.27 \times 10^{637} b + 4.03 \times 10^{640},\ -1.97 \times 10^{640} u^{154} + 1.41 \times 10^{641} u^{153} + \cdots + 8.32 \times 10^{640} a - 1.35 \times 10^{644},\ u^{155} - 5u^{154} + \cdots + 5977u - 1949 \rangle}$

(i) Arc colorings

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

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

$$a_2 = \begin{pmatrix} 0.236230u^{154} - 1.69459u^{153} + \cdots - 5692.37u + 1625.37 \\ -0.212794u^{154} + 1.32997u^{153} + \cdots + 3632.61u - 943.634 \end{pmatrix}$$

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

$$a_6 = \begin{pmatrix} 0.330331u^{154} - 1.99549u^{153} + \cdots - 3639.71u + 998.058 \\ -0.237444u^{154} + 1.28575u^{153} + \cdots + 2893.91u - 775.387 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.0234361u^{154} - 0.364618u^{153} + \cdots - 2059.76u + 681.735 \\ -0.212794u^{154} + 1.32997u^{153} + \cdots + 3632.61u - 943.634 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.189005u^{154} - 0.898469u^{153} + \cdots + 20.6553u + 13.2784 \\ 0.120685u^{154} - 0.600088u^{153} + \cdots + 209.357u - 96.8051 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.0586751u^{154} + 0.174131u^{153} + \cdots + 1462.55u - 207.295 \\ 0.109921u^{154} - 0.579575u^{153} + \cdots + 280.179u - 97.6014 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.116953u^{154} - 0.407827u^{153} + \cdots + 2171.07u - 811.638 \\ 0.166621u^{154} - 0.966567u^{153} + \cdots + 9.72642u - 32.9991 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.168718u^{154} - 0.843287u^{153} + \cdots - 375.424u - 120.580 \\ 0.275648u^{154} - 1.63163u^{153} + \cdots - 2328.86u + 541.989 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 0.108998u^{154} - 0.940004u^{153} + \cdots - 4609.36u + 1398.34 \\ -0.194449u^{154} + 1.09618u^{153} + \cdots + 2131.83u - 514.656 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.744791u^{154} - 3.25700u^{153} + \cdots - 2772.95u - 268.489$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{155} - 12u^{154} + \cdots + 27570093u - 1107493$
c_2, c_5	$u^{155} + 4u^{154} + \cdots + 3352225u + 213761$
c_3, c_{11}	$u^{155} + 46u^{153} + \cdots + 141090u + 6263$
c_4, c_8	$u^{155} + 5u^{154} + \cdots + 5977u + 1949$
c_6	$u^{155} + 2u^{154} + \cdots + 2055676577u + 258968363$
c_7, c_{10}	$u^{155} - 8u^{154} + \cdots - 211061u + 8101$
c_9	$u^{155} + 6u^{154} + \cdots - 6440321u + 1742611$
c_{12}	$u^{155} - 2u^{154} + \cdots - 75394u + 5489$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{155}+2y^{154}+\cdots+738368560502371y-1226540745049$
c_2, c_5	$y^{155}-120y^{154}+\cdots-8858040695633y-45693765121$
c_3, c_{11}	$y^{155}+92y^{154}+\cdots+1224660764y-39225169$
c_4, c_8	$y^{155}+89y^{154}+\cdots-114983845y-3798601$
c_6	$y^{155}-34y^{154}+\cdots+84994374167213874 1y-67064613034899769$
c_7, c_{10}	$y^{155}+110y^{154}+\cdots-4992732509y-65626201$
c_9	$y^{155}+52y^{154}+\cdots-183271361272113y-3036693097321$
c_{12}	$y^{155}+50y^{154}+\cdots+2953027638y-30129121$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.632154 + 0.764495I$ $a = -1.18773 + 1.14589I$ $b = 0.656993 - 1.249390I$	$-1.52361 - 2.33822I$	0
$u = 0.632154 - 0.764495I$ $a = -1.18773 - 1.14589I$ $b = 0.656993 + 1.249390I$	$-1.52361 + 2.33822I$	0
$u = -0.332105 + 0.955418I$ $a = -0.88838 + 2.06421I$ $b = 0.428057 - 0.475116I$	$-5.98722 + 5.65625I$	0
$u = -0.332105 - 0.955418I$ $a = -0.88838 - 2.06421I$ $b = 0.428057 + 0.475116I$	$-5.98722 - 5.65625I$	0
$u = 0.320034 + 0.935213I$ $a = -1.44761 - 2.62074I$ $b = 1.58115 + 1.32042I$	$-2.69846 + 5.60305I$	0
$u = 0.320034 - 0.935213I$ $a = -1.44761 + 2.62074I$ $b = 1.58115 - 1.32042I$	$-2.69846 - 5.60305I$	0
$u = 0.165753 + 0.943595I$ $a = 0.586498 - 1.215400I$ $b = -1.55472 + 1.20228I$	$2.07947 - 3.25255I$	0
$u = 0.165753 - 0.943595I$ $a = 0.586498 + 1.215400I$ $b = -1.55472 - 1.20228I$	$2.07947 + 3.25255I$	0
$u = -0.336433 + 0.886864I$ $a = 0.49414 - 2.15802I$ $b = -0.475427 + 0.808420I$	$-2.73771 + 1.86517I$	0
$u = -0.336433 - 0.886864I$ $a = 0.49414 + 2.15802I$ $b = -0.475427 - 0.808420I$	$-2.73771 - 1.86517I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.947907+0.023227I$ $a=-0.254238-0.022444I$ $b=-0.412821-1.053730I$	$1.60910-8.22629I$	0
$u=-0.947907-0.023227I$ $a=-0.254238+0.022444I$ $b=-0.412821+1.053730I$	$1.60910+8.22629I$	0
$u=-0.388203+0.864670I$ $a=-0.31910+2.41589I$ $b=0.63527-1.41490I$	$-6.60783-1.40063I$	0
$u=-0.388203-0.864670I$ $a=-0.31910-2.41589I$ $b=0.63527+1.41490I$	$-6.60783+1.40063I$	0
$u=-0.308062+1.007630I$ $a=-0.28746-1.60359I$ $b=-1.00284+1.04042I$	$1.21740+4.03535I$	0
$u=-0.308062-1.007630I$ $a=-0.28746+1.60359I$ $b=-1.00284-1.04042I$	$1.21740-4.03535I$	0
$u=1.060490+0.136755I$ $a=-0.395064-0.346887I$ $b=0.941299-0.388243I$	$-6.64824+1.50984I$	0
$u=1.060490-0.136755I$ $a=-0.395064+0.346887I$ $b=0.941299+0.388243I$	$-6.64824-1.50984I$	0
$u=0.464278+0.976770I$ $a=0.30566+1.84213I$ $b=-0.728498-0.632407I$	$0.02278-5.80615I$	0
$u=0.464278-0.976770I$ $a=0.30566-1.84213I$ $b=-0.728498+0.632407I$	$0.02278+5.80615I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.440998 + 0.997274I$ $a = -0.68309 - 2.08178I$ $b = 1.040830 + 0.429714I$	$-3.47172 - 10.78400I$	0
$u = 0.440998 - 0.997274I$ $a = -0.68309 + 2.08178I$ $b = 1.040830 - 0.429714I$	$-3.47172 + 10.78400I$	0
$u = 0.630842 + 0.647374I$ $a = 1.07282 - 1.33346I$ $b = -0.292806 + 1.331150I$	$-1.80068 - 2.59274I$	0
$u = 0.630842 - 0.647374I$ $a = 1.07282 + 1.33346I$ $b = -0.292806 - 1.331150I$	$-1.80068 + 2.59274I$	0
$u = -0.902322 + 0.044640I$ $a = 0.418779 - 0.204155I$ $b = 0.275791 - 0.766068I$	$3.96728 + 3.58960I$	0
$u = -0.902322 - 0.044640I$ $a = 0.418779 + 0.204155I$ $b = 0.275791 + 0.766068I$	$3.96728 - 3.58960I$	0
$u = 0.155717 + 0.883135I$ $a = 1.05498 + 2.34477I$ $b = -0.271165 - 1.150490I$	$1.90724 + 1.69368I$	0
$u = 0.155717 - 0.883135I$ $a = 1.05498 - 2.34477I$ $b = -0.271165 + 1.150490I$	$1.90724 - 1.69368I$	0
$u = 0.407305 + 1.027460I$ $a = -0.59832 + 1.29563I$ $b = -1.23541 - 1.14072I$	$4.63415 - 5.45186I$	0
$u = 0.407305 - 1.027460I$ $a = -0.59832 - 1.29563I$ $b = -1.23541 + 1.14072I$	$4.63415 + 5.45186I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.655471+0.910338I$ $a=-0.331171+0.795825I$ $b=-0.369577+0.034401I$	$-3.65853-0.76921I$	0
$u=-0.655471-0.910338I$ $a=-0.331171-0.795825I$ $b=-0.369577-0.034401I$	$-3.65853+0.76921I$	0
$u=0.219832+1.106170I$ $a=-0.968653+0.366699I$ $b=-0.622560-0.130561I$	$3.44823-2.86027I$	0
$u=0.219832-1.106170I$ $a=-0.968653-0.366699I$ $b=-0.622560+0.130561I$	$3.44823+2.86027I$	0
$u=0.665562+0.913944I$ $a=1.15419-0.97993I$ $b=-0.28018+1.75138I$	$3.33744+0.06742I$	0
$u=0.665562-0.913944I$ $a=1.15419+0.97993I$ $b=-0.28018-1.75138I$	$3.33744-0.06742I$	0
$u=0.853746+0.160759I$ $a=0.386286+0.044218I$ $b=-0.445128+0.406798I$	$-1.042080+0.198583I$	0
$u=0.853746-0.160759I$ $a=0.386286-0.044218I$ $b=-0.445128-0.406798I$	$-1.042080-0.198583I$	0
$u=1.104610+0.255028I$ $a=-0.507189-0.167972I$ $b=0.936725-0.943509I$	$-3.47694+13.60270I$	0
$u=1.104610-0.255028I$ $a=-0.507189+0.167972I$ $b=0.936725+0.943509I$	$-3.47694-13.60270I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.145480+0.841695I$ $a=-0.42940-2.52384I$ $b=-0.503978+0.504682I$	$0.06024+4.12457I$	0
$u=-0.145480-0.841695I$ $a=-0.42940+2.52384I$ $b=-0.503978-0.504682I$	$0.06024-4.12457I$	0
$u=0.210950+1.131710I$ $a=-0.07148+1.94014I$ $b=-0.64854-1.77286I$	$5.15722-4.94782I$	0
$u=0.210950-1.131710I$ $a=-0.07148-1.94014I$ $b=-0.64854+1.77286I$	$5.15722+4.94782I$	0
$u=-0.217354+1.133410I$ $a=0.433968+1.047940I$ $b=0.497943-0.806490I$	$3.40378+0.05786I$	0
$u=-0.217354-1.133410I$ $a=0.433968-1.047940I$ $b=0.497943+0.806490I$	$3.40378-0.05786I$	0
$u=-0.379012+1.093380I$ $a=-0.971570-0.105723I$ $b=0.135918+0.931279I$	$4.11695-0.46339I$	0
$u=-0.379012-1.093380I$ $a=-0.971570+0.105723I$ $b=0.135918-0.931279I$	$4.11695+0.46339I$	0
$u=0.174326+0.821465I$ $a=-2.40032-0.25977I$ $b=2.98947-0.36087I$	$-3.37727-7.93787I$	0
$u=0.174326-0.821465I$ $a=-2.40032+0.25977I$ $b=2.98947+0.36087I$	$-3.37727+7.93787I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.279492+0.791159I$ $a=-0.052746-1.333800I$ $b=-0.697093-0.199773I$	$0.21819-1.92183I$	0
$u=-0.279492-0.791159I$ $a=-0.052746+1.333800I$ $b=-0.697093+0.199773I$	$0.21819+1.92183I$	0
$u=-0.667864+0.494882I$ $a=-0.199319-0.960026I$ $b=\ \ 0.803175-0.259614I$	$-4.77617+5.79352I$	0
$u=-0.667864-0.494882I$ $a=-0.199319+0.960026I$ $b=\ \ 0.803175+0.259614I$	$-4.77617-5.79352I$	0
$u=\ \ 0.593305+1.007890I$ $a=-0.88677+1.59849I$ $b=-0.32755-1.80236I$	$3.69654-5.06498I$	0
$u=\ \ 0.593305-1.007890I$ $a=-0.88677-1.59849I$ $b=-0.32755+1.80236I$	$3.69654+5.06498I$	0
$u=\ \ 0.064119+0.824612I$ $a=\ \ 1.13744+2.27781I$ $b=-0.005073-0.691467I$	$2.03577+1.68642I$	0
$u=\ \ 0.064119-0.824612I$ $a=\ \ 1.13744-2.27781I$ $b=-0.005073+0.691467I$	$2.03577-1.68642I$	0
$u=\ \ 0.782761+0.261434I$ $a=-0.298402+0.700222I$ $b=-0.517502-0.534657I$	$-3.70924-1.83954I$	0
$u=\ \ 0.782761-0.261434I$ $a=-0.298402-0.700222I$ $b=-0.517502+0.534657I$	$-3.70924+1.83954I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.398255 + 1.107460I$ $a = 0.297301 + 0.172591I$ $b = -0.837825 - 0.163613I$	$-1.32317 - 2.47298I$	0
$u = 0.398255 - 1.107460I$ $a = 0.297301 - 0.172591I$ $b = -0.837825 + 0.163613I$	$-1.32317 + 2.47298I$	0
$u = 0.548751 + 1.041890I$ $a = -0.533329 - 1.037770I$ $b = 0.316666 + 0.111508I$	$-3.73870 - 1.26130I$	0
$u = 0.548751 - 1.041890I$ $a = -0.533329 + 1.037770I$ $b = 0.316666 - 0.111508I$	$-3.73870 + 1.26130I$	0
$u = -0.328741 + 1.130950I$ $a = 0.890426 - 0.905705I$ $b = -1.72705 + 0.48694I$	$1.25479 + 6.54912I$	0
$u = -0.328741 - 1.130950I$ $a = 0.890426 + 0.905705I$ $b = -1.72705 - 0.48694I$	$1.25479 - 6.54912I$	0
$u = -0.315353 + 0.748878I$ $a = -1.54231 - 0.64173I$ $b = 1.82527 + 0.83218I$	$-7.05962 + 4.60091I$	0
$u = -0.315353 - 0.748878I$ $a = -1.54231 + 0.64173I$ $b = 1.82527 - 0.83218I$	$-7.05962 - 4.60091I$	0
$u = 1.164350 + 0.245956I$ $a = 0.447906 + 0.184566I$ $b = -0.781624 + 0.785430I$	$0.20952 + 6.87027I$	0
$u = 1.164350 - 0.245956I$ $a = 0.447906 - 0.184566I$ $b = -0.781624 - 0.785430I$	$0.20952 - 6.87027I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.442189 + 1.110960I$ $a = 0.98886 - 1.05193I$ $b = 0.649432 + 1.200950I$	$4.17031 - 1.59616I$	0
$u = 0.442189 - 1.110960I$ $a = 0.98886 + 1.05193I$ $b = 0.649432 - 1.200950I$	$4.17031 + 1.59616I$	0
$u = -0.309217 + 0.735277I$ $a = 0.341028 + 0.397452I$ $b = -1.335460 - 0.412926I$	$-3.24796 + 1.11316I$	0
$u = -0.309217 - 0.735277I$ $a = 0.341028 - 0.397452I$ $b = -1.335460 + 0.412926I$	$-3.24796 - 1.11316I$	0
$u = -0.768328 + 0.188401I$ $a = 0.275738 - 0.566334I$ $b = -0.871620 - 0.946838I$	$0.32900 - 2.38674I$	0
$u = -0.768328 - 0.188401I$ $a = 0.275738 + 0.566334I$ $b = -0.871620 + 0.946838I$	$0.32900 + 2.38674I$	0
$u = -0.354167 + 1.158710I$ $a = 1.059200 + 0.778046I$ $b = 0.067922 - 1.155330I$	$4.32208 + 1.17221I$	0
$u = -0.354167 - 1.158710I$ $a = 1.059200 - 0.778046I$ $b = 0.067922 + 1.155330I$	$4.32208 - 1.17221I$	0
$u = -1.175620 + 0.322537I$ $a = -0.465550 - 0.054229I$ $b = 0.779649 + 0.753123I$	$-8.26316 - 7.06323I$	0
$u = -1.175620 - 0.322537I$ $a = -0.465550 + 0.054229I$ $b = 0.779649 - 0.753123I$	$-8.26316 + 7.06323I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.622512 + 0.453662I$ $a = 0.0266475 - 0.0692873I$ $b = -1.227340 + 0.239113I$	$-1.47244 + 1.58934I$	0
$u = 0.622512 - 0.453662I$ $a = 0.0266475 + 0.0692873I$ $b = -1.227340 - 0.239113I$	$-1.47244 - 1.58934I$	0
$u = -1.142530 + 0.505732I$ $a = 0.523359 + 0.032096I$ $b = -0.543675 - 0.766771I$	$-2.87889 - 1.93304I$	0
$u = -1.142530 - 0.505732I$ $a = 0.523359 - 0.032096I$ $b = -0.543675 + 0.766771I$	$-2.87889 + 1.93304I$	0
$u = 0.043575 + 1.249060I$ $a = -0.435578 - 0.988161I$ $b = 1.08789 + 1.05730I$	$7.75572 + 1.57249I$	0
$u = 0.043575 - 1.249060I$ $a = -0.435578 + 0.988161I$ $b = 1.08789 - 1.05730I$	$7.75572 - 1.57249I$	0
$u = 0.289936 + 1.219130I$ $a = 0.99461 - 1.01004I$ $b = 0.393519 + 0.626484I$	$3.20983 - 4.81140I$	0
$u = 0.289936 - 1.219130I$ $a = 0.99461 + 1.01004I$ $b = 0.393519 - 0.626484I$	$3.20983 + 4.81140I$	0
$u = -0.506429 + 1.146790I$ $a = -0.35114 + 2.11186I$ $b = 1.70814 - 1.58659I$	$3.20415 + 8.25375I$	0
$u = -0.506429 - 1.146790I$ $a = -0.35114 - 2.11186I$ $b = 1.70814 + 1.58659I$	$3.20415 - 8.25375I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.698177+0.220233I$ $a=-0.419829+1.074660I$ $b=\ \ 1.31140+0.67801I$	$0.51455-3.66015I$	0
$u=-0.698177-0.220233I$ $a=-0.419829-1.074660I$ $b=\ \ 1.31140-0.67801I$	$0.51455+3.66015I$	0
$u=-0.278021+1.247040I$ $a=-0.98662+1.95880I$ $b=\ \ 1.43804-1.92991I$	$0.15735+8.43497I$	0
$u=-0.278021-1.247040I$ $a=-0.98662-1.95880I$ $b=\ \ 1.43804+1.92991I$	$0.15735-8.43497I$	0
$u=-0.514734+1.170450I$ $a=-0.08794-1.94033I$ $b=-1.30080+1.60796I$	$3.21663+7.16288I$	0
$u=-0.514734-1.170450I$ $a=-0.08794+1.94033I$ $b=-1.30080-1.60796I$	$3.21663-7.16288I$	0
$u=\ \ 0.412246+1.221430I$ $a=\ \ 0.438540-0.919186I$ $b=\ \ 0.574472+0.762339I$	$2.95233-3.87355I$	0
$u=\ \ 0.412246-1.221430I$ $a=\ \ 0.438540+0.919186I$ $b=\ \ 0.574472-0.762339I$	$2.95233+3.87355I$	0
$u=\ \ 0.426286+1.219960I$ $a=-0.66481-1.78704I$ $b=\ \ 1.43638+1.38473I$	$-2.26989-7.19888I$	0
$u=\ \ 0.426286-1.219960I$ $a=-0.66481+1.78704I$ $b=\ \ 1.43638-1.38473I$	$-2.26989+7.19888I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.243161+0.664104I$ $a=\ \ 0.523133-0.354393I$ $b=\ \ 1.323260+0.243075I$	$-6.99155-2.85050I$	0
$u=-0.243161-0.664104I$ $a=\ \ 0.523133+0.354393I$ $b=\ \ 1.323260-0.243075I$	$-6.99155+2.85050I$	0
$u=\ \ 0.515308+1.203210I$ $a=-0.09123+1.52106I$ $b=-0.76313-1.26992I$	$2.13886-5.12719I$	0
$u=\ \ 0.515308-1.203210I$ $a=-0.09123-1.52106I$ $b=-0.76313+1.26992I$	$2.13886+5.12719I$	0
$u=-0.335508+0.597688I$ $a=\ \ 0.865218+1.033820I$ $b=\ \ 0.331892+0.033728I$	$2.75467+1.57364I$	0
$u=-0.335508-0.597688I$ $a=\ \ 0.865218-1.033820I$ $b=\ \ 0.331892-0.033728I$	$2.75467-1.57364I$	0
$u=\ \ 0.664010+0.151032I$ $a=-0.178023+0.640797I$ $b=\ \ 1.199990+0.348926I$	$-6.07050-3.24646I$	0
$u=\ \ 0.664010-0.151032I$ $a=-0.178023-0.640797I$ $b=\ \ 1.199990-0.348926I$	$-6.07050+3.24646I$	0
$u=\ \ 0.037284+1.334640I$ $a=-0.465607-0.486813I$ $b=-0.147167+0.263317I$	$-0.95180-2.88072I$	0
$u=\ \ 0.037284-1.334640I$ $a=-0.465607+0.486813I$ $b=-0.147167-0.263317I$	$-0.95180+2.88072I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.467731+1.262170I$ $a=\ 0.308949+1.136310I$ $b=\ 0.882237-0.995385I$	$7.89563+8.39932I$	0
$u=-0.467731-1.262170I$ $a=\ 0.308949-1.136310I$ $b=\ 0.882237+0.995385I$	$7.89563-8.39932I$	0
$u=\ 0.454528+0.468295I$ $a=\ 0.466447-0.293460I$ $b=\ 1.55447-0.20447I$	$-5.00548+6.98572I$	$-12.81869+0.I$
$u=\ 0.454528-0.468295I$ $a=\ 0.466447+0.293460I$ $b=\ 1.55447+0.20447I$	$-5.00548-6.98572I$	$-12.81869+0.I$
$u=-0.495947+1.269820I$ $a=-0.48329-1.41042I$ $b=-0.80391+1.22983I$	$5.4234+13.3296I$	0
$u=-0.495947-1.269820I$ $a=-0.48329+1.41042I$ $b=-0.80391-1.22983I$	$5.4234-13.3296I$	0
$u=-0.480158+1.308130I$ $a=-0.238432-0.965969I$ $b=-0.344087+1.131670I$	$7.82001+1.55003I$	0
$u=-0.480158-1.308130I$ $a=-0.238432+0.965969I$ $b=-0.344087-1.131670I$	$7.82001-1.55003I$	0
$u=-0.435470+1.327730I$ $a=\ 0.579421+1.018310I$ $b=\ 0.060548-1.164660I$	$5.86004-3.19383I$	0
$u=-0.435470-1.327730I$ $a=\ 0.579421-1.018310I$ $b=\ 0.060548+1.164660I$	$5.86004+3.19383I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.576786 + 0.166456I$ $a = 0.432897 - 0.994142I$ $b = -0.098592 - 0.980102I$	$1.55147 - 2.37026I$	$-8.00000 + 3.44366I$
$u = 0.576786 - 0.166456I$ $a = 0.432897 + 0.994142I$ $b = -0.098592 + 0.980102I$	$1.55147 + 2.37026I$	$-8.00000 - 3.44366I$
$u = -1.289590 + 0.546873I$ $a = -0.497506 - 0.030286I$ $b = 0.450415 + 0.496218I$	$-6.53330 + 4.97775I$	0
$u = -1.289590 - 0.546873I$ $a = -0.497506 + 0.030286I$ $b = 0.450415 - 0.496218I$	$-6.53330 - 4.97775I$	0
$u = 0.441209 + 1.329830I$ $a = -0.33967 + 1.44345I$ $b = -0.524598 - 1.002640I$	$1.17347 - 6.29813I$	0
$u = 0.441209 - 1.329830I$ $a = -0.33967 - 1.44345I$ $b = -0.524598 + 1.002640I$	$1.17347 + 6.29813I$	0
$u = -0.679370 + 1.231340I$ $a = -0.170929 - 1.330400I$ $b = -0.80144 + 1.29353I$	$-0.38329 + 8.43734I$	0
$u = -0.679370 - 1.231340I$ $a = -0.170929 + 1.330400I$ $b = -0.80144 - 1.29353I$	$-0.38329 - 8.43734I$	0
$u = 1.32290 + 0.51746I$ $a = -0.190207 + 0.430256I$ $b = 0.118271 - 0.626537I$	$-4.49216 - 1.70932I$	0
$u = 1.32290 - 0.51746I$ $a = -0.190207 - 0.430256I$ $b = 0.118271 + 0.626537I$	$-4.49216 + 1.70932I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.375658 + 0.440001I$ $a = 0.64923 + 1.87094I$ $b = -0.314859 + 0.570720I$	$2.96714 + 1.99436I$	$-4.69488 - 1.20406I$
$u = 0.375658 - 0.440001I$ $a = 0.64923 - 1.87094I$ $b = -0.314859 - 0.570720I$	$2.96714 - 1.99436I$	$-4.69488 + 1.20406I$
$u = 0.62937 + 1.27748I$ $a = -0.00293 - 1.67751I$ $b = 1.18421 + 1.53311I$	$-0.2572 - 19.7583I$	0
$u = 0.62937 - 1.27748I$ $a = -0.00293 + 1.67751I$ $b = 1.18421 - 1.53311I$	$-0.2572 + 19.7583I$	0
$u = 0.54728 + 1.31582I$ $a = -0.47652 - 1.33782I$ $b = 1.32944 + 1.11610I$	$-2.91923 - 7.22256I$	0
$u = 0.54728 - 1.31582I$ $a = -0.47652 + 1.33782I$ $b = 1.32944 - 1.11610I$	$-2.91923 + 7.22256I$	0
$u = 0.573688$ $a = 0.646215$ $b = 0.0411893$	-0.844639	-10.8360
$u = -0.65115 + 1.27711I$ $a = 0.00968 + 1.52279I$ $b = 0.96355 - 1.30179I$	$-5.1619 + 13.4798I$	0
$u = -0.65115 - 1.27711I$ $a = 0.00968 - 1.52279I$ $b = 0.96355 + 1.30179I$	$-5.1619 - 13.4798I$	0
$u = 0.63931 + 1.29926I$ $a = 0.03131 + 1.44776I$ $b = -1.10638 - 1.37778I$	$3.55432 - 13.22140I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.63931 - 1.29926I$ $a = 0.03131 - 1.44776I$ $b = -1.10638 + 1.37778I$	$3.55432 + 13.22140I$	0
$u = -0.74406 + 1.27530I$ $a = -0.012649 + 0.997902I$ $b = 0.716523 - 1.025500I$	$-3.93401 + 2.20930I$	0
$u = -0.74406 - 1.27530I$ $a = -0.012649 - 0.997902I$ $b = 0.716523 + 1.025500I$	$-3.93401 - 2.20930I$	0
$u = 0.19642 + 1.46631I$ $a = -0.626441 + 0.338435I$ $b = -0.069141 - 0.567483I$	$2.71989 + 8.77009I$	0
$u = 0.19642 - 1.46631I$ $a = -0.626441 - 0.338435I$ $b = -0.069141 + 0.567483I$	$2.71989 - 8.77009I$	0
$u = 0.01462 + 1.49692I$ $a = 1.333740 - 0.096824I$ $b = -1.78200 + 0.21594I$	$5.25755 - 0.08686I$	0
$u = 0.01462 - 1.49692I$ $a = 1.333740 + 0.096824I$ $b = -1.78200 - 0.21594I$	$5.25755 + 0.08686I$	0
$u = 0.71377 + 1.33251I$ $a = 0.147646 - 1.233320I$ $b = 0.401576 + 1.072580I$	$-1.44206 - 5.64572I$	0
$u = 0.71377 - 1.33251I$ $a = 0.147646 + 1.233320I$ $b = 0.401576 - 1.072580I$	$-1.44206 + 5.64572I$	0
$u = -0.363669 + 0.288021I$ $a = 0.14276 - 2.67673I$ $b = -1.082730 + 0.323822I$	$-1.20544 - 3.45426I$	$-13.16867 + 2.70599I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.363669-0.288021I$ $a=\ \ 0.14276+2.67673I$ $b=-1.082730-0.323822I$	$-1.20544+3.45426I$	$-13.16867-2.70599I$
$u=-0.291358+0.296014I$ $a=\ \ 0.575723-1.044800I$ $b=-0.473802-0.521010I$	$-0.47265-1.36744I$	$-4.36171+5.04399I$
$u=-0.291358-0.296014I$ $a=\ \ 0.575723+1.044800I$ $b=-0.473802+0.521010I$	$-0.47265+1.36744I$	$-4.36171-5.04399I$
$u=\ \ 0.21801+1.57434I$ $a=\ \ 0.325810-0.105373I$ $b=\ \ 0.279738+0.297618I$	$6.68793+1.52866I$	0
$u=\ \ 0.21801-1.57434I$ $a=\ \ 0.325810+0.105373I$ $b=\ \ 0.279738-0.297618I$	$6.68793-1.52866I$	0

II. $I_2^u = \langle -2.54 \times 10^{23} u^{40} - 6.69 \times 10^{24} u^{39} + \cdots + 4.56 \times 10^{23} b - 1.26 \times 10^{25},\ -6.16 \times 10^{22} u^{40} + 3.15 \times 10^{22} u^{39} + \cdots + 6.43 \times 10^{21} a + 4.54 \times 10^{22},\ u^{41} + 12u^{39} + \cdots + 2u + 1 \rangle$

(i) Arc colorings

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

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

$$a_2 = \begin{pmatrix} 9.59079u^{40} - 4.89800u^{39} + \cdots + 25.8062u - 7.05871 \\ 0.556984u^{40} + 14.6558u^{39} + \cdots + 55.0569u + 27.5308 \end{pmatrix}$$

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

$$a_6 = \begin{pmatrix} 11.5770u^{40} - 23.1309u^{39} + \cdots - 47.0461u - 39.1021 \\ 6.69245u^{40} + 15.0401u^{39} + \cdots + 72.9557u + 31.4519 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 10.1478u^{40} + 9.75775u^{39} + \cdots + 80.8630u + 20.4721 \\ 0.556984u^{40} + 14.6558u^{39} + \cdots + 55.0569u + 27.5308 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 8.52349u^{40} - 0.0137372u^{39} + \cdots + 14.7889u + 2.84584 \\ 9.01292u^{40} + 16.7027u^{39} + \cdots + 80.1114u + 34.9859 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -13.5555u^{40} + 8.95947u^{39} + \cdots + 14.4865u + 23.0814 \\ -24.0536u^{40} + 0.177028u^{39} + \cdots - 61.3343u - 4.03325 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -2.54793u^{40} + 6.40265u^{39} + \cdots + 41.9547u + 17.8120 \\ 14.7210u^{40} - 2.51803u^{39} + \cdots + 35.4520u - 1.53297 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -35.2012u^{40} + 14.3882u^{39} + \cdots + 20.0442u + 38.7408 \\ -13.9457u^{40} + 2.32945u^{39} + \cdots - 34.3077u - 2.32106 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 11.6105u^{40} + 4.51644u^{39} + \cdots + 74.1057u + 11.6340 \\ 3.72732u^{40} + 12.6917u^{39} + \cdots + 57.3194u + 23.9340 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -\frac{1064854346389677236939351}{4562199223627265370890 49}u^{40} - \frac{10330854817279894643230856}{4562199223627265370890 49}u^{39} + \cdots - \frac{39324759446268489876458 44}{1520733074542421790296 83}u - \frac{90546490889244968706982 45}{4562199223627265370890 49}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{41} - 3u^{40} + \cdots - 14u - 1$
c_2	$u^{41} + 3u^{40} + \cdots + 12u - 9$
c_3	$u^{41} + 3u^{40} + \cdots - 3u + 1$
c_4	$u^{41} + 12u^{39} + \cdots + 2u + 1$
c_5	$u^{41} - 3u^{40} + \cdots + 12u + 9$
c_6	$u^{41} + u^{40} + \cdots + 14u - 1$
c_7	$u^{41} - 3u^{40} + \cdots + 16u - 7$
c_8	$u^{41} + 12u^{39} + \cdots + 2u - 1$
c_9	$u^{41} + u^{40} + \cdots + 6u - 1$
c_{10}	$u^{41} + 3u^{40} + \cdots + 16u + 7$
c_{11}	$u^{41} - 3u^{40} + \cdots - 3u - 1$
c_{12}	$u^{41} + u^{40} + \cdots + 15u + 9$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{41} - 19y^{40} + \cdots - 148y - 1$
c_2, c_5	$y^{41} - 33y^{40} + \cdots + 2232y - 81$
c_3, c_{11}	$y^{41} + 19y^{40} + \cdots - 23y - 1$
c_4, c_8	$y^{41} + 24y^{40} + \cdots - 16y - 1$
c_6	$y^{41} + 5y^{40} + \cdots + 66y - 1$
c_7, c_{10}	$y^{41} + 33y^{40} + \cdots - 1256y - 49$
c_9	$y^{41} + 11y^{40} + \cdots - 24y - 1$
c_{12}	$y^{41} + 37y^{40} + \cdots - 873y - 81$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.294205+0.894932I$ $a=-0.96761-1.64787I$ $b=-0.54908+1.51961I$	$4.45682+3.64482I$	$-3.20012-2.14168I$
$u=-0.294205-0.894932I$ $a=-0.96761+1.64787I$ $b=-0.54908-1.51961I$	$4.45682-3.64482I$	$-3.20012+2.14168I$
$u=\ 0.814337+0.414835I$ $a=\ 0.363612+0.238097I$ $b=-0.586577+0.546664I$	$-1.39621+0.79226I$	$-11.95934-3.79681I$
$u=\ 0.814337-0.414835I$ $a=\ 0.363612-0.238097I$ $b=-0.586577-0.546664I$	$-1.39621-0.79226I$	$-11.95934+3.79681I$
$u=\ 0.284512+1.097740I$ $a=-0.139114+1.300540I$ $b=-1.094910-0.691279I$	$1.64334-4.87523I$	$-5.35207+6.34777I$
$u=\ 0.284512-1.097740I$ $a=-0.139114-1.300540I$ $b=-1.094910+0.691279I$	$1.64334+4.87523I$	$-5.35207-6.34777I$
$u=\ 0.314498+1.093850I$ $a=\ 1.047920-0.855485I$ $b=\ 0.689603+0.666465I$	$3.23575-3.64245I$	$-6.22535+6.39839I$
$u=\ 0.314498-1.093850I$ $a=\ 1.047920+0.855485I$ $b=\ 0.689603-0.666465I$	$3.23575+3.64245I$	$-6.22535-6.39839I$
$u=-0.432452+1.052920I$ $a=\ 1.175220+0.647057I$ $b=-0.132609-1.336900I$	$5.22222-0.62067I$	$0.39521+2.11145I$
$u=-0.432452-1.052920I$ $a=\ 1.175220-0.647057I$ $b=-0.132609+1.336900I$	$5.22222+0.62067I$	$0.39521-2.11145I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.631279+0.952583I$ $a=-0.149338+0.889551I$ $b=-0.202560-0.349498I$	$-4.80982-0.17127I$	$-14.1729-0.6369I$
$u=-0.631279-0.952583I$ $a=-0.149338-0.889551I$ $b=-0.202560+0.349498I$	$-4.80982+0.17127I$	$-14.1729+0.6369I$
$u=-1.094450+0.385041I$ $a=-0.453292-0.179522I$ $b=\ \ 0.666315-0.025679I$	$-6.95193+5.59929I$	$-13.8828-7.7228I$
$u=-1.094450-0.385041I$ $a=-0.453292+0.179522I$ $b=\ \ 0.666315+0.025679I$	$-6.95193-5.59929I$	$-13.8828+7.7228I$
$u=\ \ 0.106906+0.784852I$ $a=\ \ 1.02361+2.35207I$ $b=-0.671203-0.248330I$	$0.11124+3.17137I$	$-7.21953-2.12399I$
$u=\ \ 0.106906-0.784852I$ $a=\ \ 1.02361-2.35207I$ $b=-0.671203+0.248330I$	$0.11124-3.17137I$	$-7.21953+2.12399I$
$u=-0.511264+1.134100I$ $a=\ \ 0.08397-2.02501I$ $b=-1.54546+1.59706I$	$4.36483+8.01871I$	$0.-7.86201I$
$u=-0.511264-1.134100I$ $a=\ \ 0.08397+2.02501I$ $b=-1.54546-1.59706I$	$4.36483-8.01871I$	$0.+7.86201I$
$u=-0.702660+0.244809I$ $a=\ \ 0.348138-0.998082I$ $b=-1.065380-0.708894I$	$1.79906-3.41018I$	$-6.17250+3.51782I$
$u=-0.702660-0.244809I$ $a=\ \ 0.348138+0.998082I$ $b=-1.065380+0.708894I$	$1.79906+3.41018I$	$-6.17250-3.51782I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.290123+1.226800I$ $a=-1.36961+1.67442I$ $b=\ \ 1.87947-1.11725I$	$-0.98468+8.68675I$	$-8.00000-8.68412I$
$u=-0.290123-1.226800I$ $a=-1.36961-1.67442I$ $b=\ \ 1.87947+1.11725I$	$-0.98468-8.68675I$	$-8.00000+8.68412I$
$u=\ \ 0.482431+1.189810I$ $a=-0.21116+1.54018I$ $b=-0.78109-1.18139I$	$1.18945-5.41046I$	$-8.00000+0.I$
$u=\ \ 0.482431-1.189810I$ $a=-0.21116-1.54018I$ $b=-0.78109+1.18139I$	$1.18945+5.41046I$	$-8.00000+0.I$
$u=\ \ 0.155102+0.696565I$ $a=-1.18836-2.14248I$ $b=\ \ 0.0380708+0.0527682I$	$1.58556+1.42793I$	$-14.2600+4.3907I$
$u=\ \ 0.155102-0.696565I$ $a=-1.18836+2.14248I$ $b=\ \ 0.0380708-0.0527682I$	$1.58556-1.42793I$	$-14.2600-4.3907I$
$u=-0.183421+0.686680I$ $a=-0.48794-1.51808I$ $b=\ \ 1.33663+0.50535I$	$-6.63456+3.96308I$	$-10.29153-1.24945I$
$u=-0.183421-0.686680I$ $a=-0.48794+1.51808I$ $b=\ \ 1.33663-0.50535I$	$-6.63456-3.96308I$	$-10.29153+1.24945I$
$u=-0.046728+0.680660I$ $a=-2.16365+1.63985I$ $b=\ \ 2.45598-0.35924I$	$-3.52521-7.16247I$	$-9.24661+2.38779I$
$u=-0.046728-0.680660I$ $a=-2.16365-1.63985I$ $b=\ \ 2.45598+0.35924I$	$-3.52521+7.16247I$	$-9.24661-2.38779I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.58523 + 1.29311I$ $a = -0.046071 - 1.308290I$ $b = 0.530935 + 1.132160I$	$-1.19838 - 5.21376I$	0
$u = 0.58523 - 1.29311I$ $a = -0.046071 + 1.308290I$ $b = 0.530935 - 1.132160I$	$-1.19838 + 5.21376I$	0
$u = 1.33959 + 0.50168I$ $a = -0.255393 + 0.410560I$ $b = 0.104528 - 0.645475I$	$-4.42992 - 1.79940I$	0
$u = 1.33959 - 0.50168I$ $a = -0.255393 - 0.410560I$ $b = 0.104528 + 0.645475I$	$-4.42992 + 1.79940I$	0
$u = -0.09651 + 1.43033I$ $a = 0.082930 + 0.159715I$ $b = 0.595667 - 0.347302I$	$7.08548 - 0.71231I$	0
$u = -0.09651 - 1.43033I$ $a = 0.082930 - 0.159715I$ $b = 0.595667 + 0.347302I$	$7.08548 + 0.71231I$	0
$u = 0.316887 + 0.397785I$ $a = 2.62350 - 1.06639I$ $b = -1.090340 + 0.726353I$	$0.70471 - 2.82051I$	$-7.53028 + 3.18051I$
$u = 0.316887 - 0.397785I$ $a = 2.62350 + 1.06639I$ $b = -1.090340 - 0.726353I$	$0.70471 + 2.82051I$	$-7.53028 - 3.18051I$
$u = 0.09794 + 1.49496I$ $a = 1.224090 + 0.383076I$ $b = -1.64412 - 0.49216I$	$5.23630 + 0.69959I$	0
$u = 0.09794 - 1.49496I$ $a = 1.224090 - 0.383076I$ $b = -1.64412 + 0.49216I$	$5.23630 - 0.69959I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.428680$		
$a = \ \ 1.91710$	-3.53851	-12.1100
$b = -0.867729$		

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{41}-3u^{40}+\cdots-14u-1)$ $\cdot(u^{155}-12u^{154}+\cdots+27570093u-1107493)$
c_2	$(u^{41}+3u^{40}+\cdots+12u-9)(u^{155}+4u^{154}+\cdots+3352225u+213761)$
c_3	$(u^{41}+3u^{40}+\cdots-3u+1)(u^{155}+46u^{153}+\cdots+141090u+6263)$
c_4	$(u^{41}+12u^{39}+\cdots+2u+1)(u^{155}+5u^{154}+\cdots+5977u+1949)$
c_5	$(u^{41}-3u^{40}+\cdots+12u+9)(u^{155}+4u^{154}+\cdots+3352225u+213761)$
c_6	$(u^{41}+u^{40}+\cdots+14u-1)$ $\cdot(u^{155}+2u^{154}+\cdots+2055676577u+258968363)$
c_7	$(u^{41}-3u^{40}+\cdots+16u-7)(u^{155}-8u^{154}+\cdots-211061u+8101)$
c_8	$(u^{41}+12u^{39}+\cdots+2u-1)(u^{155}+5u^{154}+\cdots+5977u+1949)$
c_9	$(u^{41}+u^{40}+\cdots+6u-1)(u^{155}+6u^{154}+\cdots-6440321u+1742611)$
c_{10}	$(u^{41}+3u^{40}+\cdots+16u+7)(u^{155}-8u^{154}+\cdots-211061u+8101)$
c_{11}	$(u^{41}-3u^{40}+\cdots-3u-1)(u^{155}+46u^{153}+\cdots+141090u+6263)$
c_{12}	$(u^{41}+u^{40}+\cdots+15u+9)(u^{155}-2u^{154}+\cdots-75394u+5489)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{41} - 19y^{40} + \cdots - 148y - 1)$ $\cdot (y^{155} + 2y^{154} + \cdots + 738368560502371y - 1226540745049)$
c_2, c_5	$(y^{41} - 33y^{40} + \cdots + 2232y - 81)$ $\cdot (y^{155} - 120y^{154} + \cdots - 8858040695633y - 45693765121)$
c_3, c_{11}	$(y^{41} + 19y^{40} + \cdots - 23y - 1)$ $\cdot (y^{155} + 92y^{154} + \cdots + 1224660764y - 39225169)$
c_4, c_8	$(y^{41} + 24y^{40} + \cdots - 16y - 1)$ $\cdot (y^{155} + 89y^{154} + \cdots - 114983845y - 3798601)$
c_6	$(y^{41} + 5y^{40} + \cdots + 66y - 1)$ $\cdot (y^{155} - 34y^{154} + \cdots + 849943741672138741y - 67064613034899769)$
c_7, c_{10}	$(y^{41} + 33y^{40} + \cdots - 1256y - 49)$ $\cdot (y^{155} + 110y^{154} + \cdots - 4992732509y - 65626201)$
c_9	$(y^{41} + 11y^{40} + \cdots - 24y - 1)$ $\cdot (y^{155} + 52y^{154} + \cdots - 183271361272113y - 3036693097321)$
c_{12}	$(y^{41} + 37y^{40} + \cdots - 873y - 81)$ $\cdot (y^{155} + 50y^{154} + \cdots + 2953027638y - 30129121)$