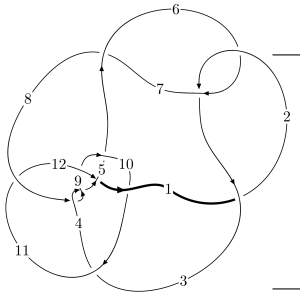
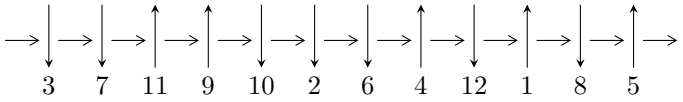
$12a_{0670}$ $(K12a_{0670})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & -7.99478 \times 10^{596} u^{148} - 1.64531 \times 10^{597} u^{147} + \cdots + 3.67010 \times 10^{596} b - 1.34656 \times 10^{597}, \\ & - 4.34564 \times 10^{595} u^{148} - 2.62040 \times 10^{596} u^{147} + \cdots + 3.67010 \times 10^{596} a - 3.07089 \times 10^{597}, \\ & u^{149} + u^{148} + \cdots - 2u - 2 \rangle \\ I_2^u = \langle & -1370767571 u^{29} + 3000893918 u^{28} + \cdots + 1426884209 b + 1819309823, \\ & 1090184381 u^{29} - 3736521418 u^{28} + \cdots + 8561305254 a - 10915858938, \\ & u^{30} - 2u^{29} + \cdots + 31u^2 - 6 \rangle \end{aligned}$$

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

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 180 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. $\boldsymbol{I_1^u = \langle -7.99 \times 10^{596} u^{148} - 1.65 \times 10^{597} u^{147} + \cdots + 3.67 \times 10^{596} b - 1.35 \times 10^{597},\ -4.35 \times 10^{595} u^{148} - 2.62 \times 10^{596} u^{147} + \cdots + 3.67 \times 10^{596} a - 3.07 \times 10^{597},\ u^{149} + u^{148} + \cdots - 2u - 2 \rangle}$

(i) Arc colorings

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

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

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

$$a_{12} = \begin{pmatrix} 0.118406u^{148} + 0.713986u^{147} + \cdots - 35.6763u + 8.36732 \\ 2.17835u^{148} + 4.48300u^{147} + \cdots + 0.0549657u + 3.66900 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.713342u^{148} - 1.89845u^{147} + \cdots - 124.836u + 1.88100 \\ 1.82739u^{148} + 3.99427u^{147} + \cdots + 9.87473u + 1.69509 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1.14943u^{148} + 3.25205u^{147} + \cdots + 93.7596u + 6.51301 \\ -2.07649u^{148} - 4.58001u^{147} + \cdots - 12.7746u - 2.99669 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 3.19987u^{148} + 7.38147u^{147} + \cdots - 34.1933u + 13.2275 \\ -2.01305u^{148} - 4.61031u^{147} + \cdots - 13.2800u - 3.50305 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -u \\ u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.110119u^{148} - 0.935528u^{147} + \cdots - 22.2883u - 5.59236 \\ 2.60343u^{148} + 5.86455u^{147} + \cdots + 19.0822u + 4.80160 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 3.45183u^{148} + 7.86190u^{147} + \cdots - 25.2823u + 14.1678 \\ -1.15507u^{148} - 2.66491u^{147} + \cdots - 10.3390u - 2.13146 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 1.60542u^{148} + 2.74162u^{147} + \cdots - 64.9088u - 1.39460 \\ 0.172593u^{148} + 0.314862u^{147} + \cdots + 3.99711u + 0.132920 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 4.57460u^{148} + 9.74047u^{147} + \cdots - 24.8475u + 14.0813 \\ -3.84852u^{148} - 8.35965u^{147} + \cdots - 12.2970u - 6.05385 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 4.39778u^{148} + 8.46029u^{147} + \cdots - 64.7824u + 7.36384$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7	$u^{149} + 47u^{148} + \cdots + 102u + 1$
c_2, c_6	$u^{149} - u^{148} + \cdots - 20u - 1$
c_3	$u^{149} - 27u^{147} + \cdots - 153572430u - 97971703$
c_4, c_8	$u^{149} + u^{148} + \cdots - 2u - 2$
c_5	$u^{149} + 4u^{148} + \cdots - 44u + 1$
c_9	$u^{149} + 3u^{148} + \cdots - 721u + 23$
c_{10}	$u^{149} - 12u^{148} + \cdots + 84178u - 11746$
c_{11}	$u^{149} - 4u^{148} + \cdots - 14272164u + 808439$
c_{12}	$u^{149} - 2u^{148} + \cdots - 105006u + 72941$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^{149} + 117y^{148} + \cdots - 5398y - 1$
c_2, c_6	$y^{149} - 47y^{148} + \cdots + 102y - 1$
c_3	$y^{149} - 54y^{148} + \cdots + 6189071606881275 04y - 9598454588720209$
c_4, c_8	$y^{149} - 115y^{148} + \cdots - 1060y - 4$
c_5	$y^{149} - 12y^{148} + \cdots + 134y - 1$
c_9	$y^{149} + 21y^{148} + \cdots + 46639y - 529$
c_{10}	$y^{149} - 42y^{148} + \cdots - 5433937780y - 137968516$
c_{11}	$y^{149} + 34y^{148} + \cdots + 2349436602660y - 653573616721$
c_{12}	$y^{149} - 36y^{148} + \cdots + 321679207278y - 5320389481$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.997927+0.108985I$ $a=\ \ 0.342836+0.881654I$ $b=-1.08945-1.35487I$	$2.61641-5.27304I$	0
$u=-0.997927-0.108985I$ $a=\ \ 0.342836-0.881654I$ $b=-1.08945+1.35487I$	$2.61641+5.27304I$	0
$u=\ \ 0.906099+0.405833I$ $a=\ \ 0.269225-0.454312I$ $b=\ \ 0.565957+1.151150I$	$1.54507+1.61217I$	0
$u=\ \ 0.906099-0.405833I$ $a=\ \ 0.269225+0.454312I$ $b=\ \ 0.565957-1.151150I$	$1.54507-1.61217I$	0
$u=-1.03753$ $a=\ \ 1.36639$ $b=\ \ 0.0654382$	-1.53008	0
$u=\ \ 1.044210+0.037573I$ $a=-0.110451+0.886146I$ $b=\ \ 0.82417-1.45728I$	$3.25938-0.03179I$	0
$u=\ \ 1.044210-0.037573I$ $a=-0.110451-0.886146I$ $b=\ \ 0.82417+1.45728I$	$3.25938+0.03179I$	0
$u=-1.040440+0.109520I$ $a=\ \ 1.23894+0.91114I$ $b=-0.235026-1.199110I$	$1.86508-5.73127I$	0
$u=-1.040440-0.109520I$ $a=\ \ 1.23894-0.91114I$ $b=-0.235026+1.199110I$	$1.86508+5.73127I$	0
$u=\ \ 0.902583+0.304485I$ $a=\ \ 0.184569-0.327460I$ $b=\ \ 0.47442+1.48814I$	$1.51854+1.59281I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.902583 - 0.304485I$ $a = 0.184569 + 0.327460I$ $b = 0.47442 - 1.48814I$	$1.51854 - 1.59281I$	0
$u = 1.028050 + 0.210019I$ $a = -1.00999 + 1.40491I$ $b = 0.53800 - 1.60291I$	$1.95414 + 1.08684I$	0
$u = 1.028050 - 0.210019I$ $a = -1.00999 - 1.40491I$ $b = 0.53800 + 1.60291I$	$1.95414 - 1.08684I$	0
$u = -1.013410 + 0.378410I$ $a = -0.190732 - 0.276665I$ $b = 0.45155 + 1.63437I$	$-1.58390 - 5.31842I$	0
$u = -1.013410 - 0.378410I$ $a = -0.190732 + 0.276665I$ $b = 0.45155 - 1.63437I$	$-1.58390 + 5.31842I$	0
$u = -0.678394 + 0.611928I$ $a = -0.113690 - 0.113990I$ $b = 0.126935 + 0.634408I$	$-1.82938 + 0.95182I$	0
$u = -0.678394 - 0.611928I$ $a = -0.113690 + 0.113990I$ $b = 0.126935 - 0.634408I$	$-1.82938 - 0.95182I$	0
$u = 0.411545 + 0.810144I$ $a = -1.226940 + 0.398074I$ $b = 0.557464 + 0.684261I$	$1.66303 - 5.32531I$	0
$u = 0.411545 - 0.810144I$ $a = -1.226940 - 0.398074I$ $b = 0.557464 - 0.684261I$	$1.66303 + 5.32531I$	0
$u = -0.380989 + 0.823004I$ $a = 1.193010 + 0.378164I$ $b = -0.473274 + 0.663865I$	$1.92473 - 0.27110I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.380989-0.823004I$ $a=\ \ 1.193010-0.378164I$ $b=-0.473274-0.663865I$	$1.92473+0.27110I$	0
$u=-0.148141+1.088790I$ $a=\ \ 0.708479-0.269615I$ $b=\ \ 0.125862+0.354257I$	$5.70505+4.15041I$	0
$u=-0.148141-1.088790I$ $a=\ \ 0.708479+0.269615I$ $b=\ \ 0.125862-0.354257I$	$5.70505-4.15041I$	0
$u=\ \ 1.103690+0.037743I$ $a=-0.801369+0.434320I$ $b=-0.844166-1.086500I$	$3.35672+1.40100I$	0
$u=\ \ 1.103690-0.037743I$ $a=-0.801369-0.434320I$ $b=-0.844166+1.086500I$	$3.35672-1.40100I$	0
$u=\ \ 1.056740+0.344471I$ $a=-0.54907+1.57577I$ $b=\ \ 0.70639-1.83078I$	$-0.92505+5.62393I$	0
$u=\ \ 1.056740-0.344471I$ $a=-0.54907-1.57577I$ $b=\ \ 0.70639+1.83078I$	$-0.92505-5.62393I$	0
$u=\ \ 0.145293+1.111540I$ $a=-0.671311-0.344539I$ $b=-0.133325+0.308302I$	$6.18629+2.02105I$	0
$u=\ \ 0.145293-1.111540I$ $a=-0.671311+0.344539I$ $b=-0.133325-0.308302I$	$6.18629-2.02105I$	0
$u=\ \ 1.109490+0.277234I$ $a=\ \ 0.166987-0.353004I$ $b=-0.89151+2.34886I$	$6.46485+4.62859I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.109490 - 0.277234I$ $a = 0.166987 + 0.353004I$ $b = -0.89151 - 2.34886I$	$6.46485 - 4.62859I$	0
$u = -0.169120 + 1.139590I$ $a = 0.561589 - 0.856111I$ $b = 0.0796304 - 0.0369593I$	$3.2097 - 13.9267I$	0
$u = -0.169120 - 1.139590I$ $a = 0.561589 + 0.856111I$ $b = 0.0796304 + 0.0369593I$	$3.2097 + 13.9267I$	0
$u = 0.170592 + 1.143440I$ $a = -0.566518 - 0.816153I$ $b = -0.0918103 - 0.0056737I$	$4.21112 + 7.80500I$	0
$u = 0.170592 - 1.143440I$ $a = -0.566518 + 0.816153I$ $b = -0.0918103 + 0.0056737I$	$4.21112 - 7.80500I$	0
$u = -0.191524 + 1.144560I$ $a = 0.416254 - 0.791031I$ $b = -0.0115438 + 0.0464869I$	$-3.41519 - 7.81442I$	0
$u = -0.191524 - 1.144560I$ $a = 0.416254 + 0.791031I$ $b = -0.0115438 - 0.0464869I$	$-3.41519 + 7.81442I$	0
$u = -1.127820 + 0.301148I$ $a = -0.191953 - 0.360112I$ $b = 1.00539 + 2.20383I$	$5.59100 - 10.86960I$	0
$u = -1.127820 - 0.301148I$ $a = -0.191953 + 0.360112I$ $b = 1.00539 - 2.20383I$	$5.59100 + 10.86960I$	0
$u = 1.082960 + 0.447710I$ $a = -0.24765 + 1.57941I$ $b = 0.78257 - 1.92036I$	$3.77855 + 10.04870I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.082960 - 0.447710I$ $a = -0.24765 - 1.57941I$ $b = 0.78257 + 1.92036I$	$3.77855 - 10.04870I$	0
$u = -0.507320 + 0.650379I$ $a = -0.524205 - 0.737183I$ $b = -0.649181 + 0.518377I$	$-3.12048 + 1.18009I$	0
$u = -0.507320 - 0.650379I$ $a = -0.524205 + 0.737183I$ $b = -0.649181 - 0.518377I$	$-3.12048 - 1.18009I$	0
$u = 0.174954 + 1.166670I$ $a = -0.450111 - 0.641115I$ $b = -0.0389245 + 0.1320640I$	$0.70784 + 4.41763I$	0
$u = 0.174954 - 1.166670I$ $a = -0.450111 + 0.641115I$ $b = -0.0389245 - 0.1320640I$	$0.70784 - 4.41763I$	0
$u = 0.441941 + 0.688681I$ $a = -1.244180 + 0.491058I$ $b = 0.766708 + 0.442072I$	$-2.78657 - 1.63532I$	0
$u = 0.441941 - 0.688681I$ $a = -1.244180 - 0.491058I$ $b = 0.766708 - 0.442072I$	$-2.78657 + 1.63532I$	0
$u = -0.118484 + 0.802160I$ $a = 0.658374 + 0.514246I$ $b = -0.135012 + 0.329816I$	$-1.15927 + 1.43856I$	0
$u = -0.118484 - 0.802160I$ $a = 0.658374 - 0.514246I$ $b = -0.135012 - 0.329816I$	$-1.15927 - 1.43856I$	0
$u = -1.181650 + 0.176133I$ $a = 0.617217 + 1.067780I$ $b = -0.15319 - 2.14924I$	$2.11194 - 5.30881I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.181650-0.176133I$ $a=\ \ 0.617217-1.067780I$ $b=-0.15319+2.14924I$	$2.11194+5.30881I$	0
$u=\ \ 1.193300+0.084273I$ $a=\ \ 0.86821+1.31202I$ $b=-0.31384-2.13053I$	$2.34030+4.44114I$	0
$u=\ \ 1.193300-0.084273I$ $a=\ \ 0.86821-1.31202I$ $b=-0.31384+2.13053I$	$2.34030-4.44114I$	0
$u=\ \ 0.559855+0.572285I$ $a=-1.222220+0.512666I$ $b=\ \ 1.102970+0.206290I$	$0.80054+2.00529I$	0
$u=\ \ 0.559855-0.572285I$ $a=-1.222220-0.512666I$ $b=\ \ 1.102970-0.206290I$	$0.80054-2.00529I$	0
$u=\ \ 1.196670+0.109755I$ $a=\ \ 1.29187+1.46649I$ $b=-0.83459-2.42562I$	$8.10417+9.47321I$	0
$u=\ \ 1.196670-0.109755I$ $a=\ \ 1.29187-1.46649I$ $b=-0.83459+2.42562I$	$8.10417-9.47321I$	0
$u=-1.116450+0.450429I$ $a=\ \ 0.22416+1.49263I$ $b=-0.75745-1.94000I$	$4.25390-4.49520I$	0
$u=-1.116450-0.450429I$ $a=\ \ 0.22416-1.49263I$ $b=-0.75745+1.94000I$	$4.25390+4.49520I$	0
$u=-1.203530+0.109989I$ $a=-1.32160+1.34085I$ $b=\ \ 0.90485-2.26970I$	$8.87316-3.63122I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.203530-0.109989I$ $a=-1.32160-1.34085I$ $b=\ \ 0.90485+2.26970I$	$8.87316+3.63122I$	0
$u=-1.004700+0.672684I$ $a=-0.305368-0.565052I$ $b=-0.256201+0.933577I$	$-0.90910-6.47182I$	0
$u=-1.004700-0.672684I$ $a=-0.305368+0.565052I$ $b=-0.256201-0.933577I$	$-0.90910+6.47182I$	0
$u=\ \ 1.212300+0.032402I$ $a=\ \ 0.377505-0.653265I$ $b=\ \ 0.311166+1.221160I$	$3.18267+0.49662I$	0
$u=\ \ 1.212300-0.032402I$ $a=\ \ 0.377505+0.653265I$ $b=\ \ 0.311166-1.221160I$	$3.18267-0.49662I$	0
$u=\ \ 1.226990+0.039571I$ $a=-0.361508+0.786450I$ $b=-0.83365-2.52866I$	$9.27492+2.42864I$	0
$u=\ \ 1.226990-0.039571I$ $a=-0.361508-0.786450I$ $b=-0.83365+2.52866I$	$9.27492-2.42864I$	0
$u=-1.228560+0.075364I$ $a=-0.987214+0.906544I$ $b=\ \ 0.55372-1.59986I$	$5.51292-1.98562I$	0
$u=-1.228560-0.075364I$ $a=-0.987214-0.906544I$ $b=\ \ 0.55372+1.59986I$	$5.51292+1.98562I$	0
$u=-0.576590+0.507170I$ $a=\ \ 1.179340+0.491640I$ $b=-1.132470+0.046145I$	$0.87292+3.33988I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.576590-0.507170I$ $a=\ \ 1.179340-0.491640I$ $b=-1.132470-0.046145I$	$0.87292-3.33988I$	0
$u=-1.196990+0.303365I$ $a=\ \ 0.500611+1.233240I$ $b=-0.69194-2.05863I$	$1.91368-4.83833I$	0
$u=-1.196990-0.303365I$ $a=\ \ 0.500611-1.233240I$ $b=-0.69194+2.05863I$	$1.91368+4.83833I$	0
$u=-0.178626+1.227670I$ $a=\ \ 0.288378-0.542263I$ $b=-0.021204+0.202786I$	$-2.55049-0.20359I$	0
$u=-0.178626-1.227670I$ $a=\ \ 0.288378+0.542263I$ $b=-0.021204-0.202786I$	$-2.55049+0.20359I$	0
$u=-1.240650+0.054760I$ $a=\ \ 0.362471+0.843791I$ $b=\ \ 0.70178-2.61256I$	$8.83349-8.53833I$	0
$u=-1.240650-0.054760I$ $a=\ \ 0.362471-0.843791I$ $b=\ \ 0.70178+2.61256I$	$8.83349+8.53833I$	0
$u=-0.005854+0.708081I$ $a=-0.13905+1.67581I$ $b=-0.014455+0.174742I$	$-1.01217+2.55939I$	0
$u=-0.005854-0.708081I$ $a=-0.13905-1.67581I$ $b=-0.014455-0.174742I$	$-1.01217-2.55939I$	0
$u=-0.698550+0.110191I$ $a=\ \ 0.548182+0.333374I$ $b=-0.919508-0.688389I$	$-1.95646-0.51661I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.698550-0.110191I$ $a=\ \ 0.548182-0.333374I$ $b=-0.919508+0.688389I$	$-1.95646+0.51661I$	0
$u=-1.299100+0.113301I$ $a=-1.309760+0.378513I$ $b=\ \ 1.20596-0.91158I$	$8.76797-0.64485I$	0
$u=-1.299100-0.113301I$ $a=-1.309760-0.378513I$ $b=\ \ 1.20596+0.91158I$	$8.76797+0.64485I$	0
$u=\ \ 1.281160+0.292066I$ $a=-0.540452+1.164070I$ $b=\ \ 1.13995-2.32706I$	$-0.22552+5.20204I$	0
$u=\ \ 1.281160-0.292066I$ $a=-0.540452-1.164070I$ $b=\ \ 1.13995+2.32706I$	$-0.22552-5.20204I$	0
$u=-1.293040+0.250167I$ $a=\ \ 0.498078+1.191740I$ $b=-0.85502-2.71580I$	$4.64814-3.64822I$	0
$u=-1.293040-0.250167I$ $a=\ \ 0.498078-1.191740I$ $b=-0.85502+2.71580I$	$4.64814+3.64822I$	0
$u=\ \ 1.298360+0.262420I$ $a=-0.509838+1.201720I$ $b=\ \ 0.98641-2.70994I$	$4.30570+9.22114I$	0
$u=\ \ 1.298360-0.262420I$ $a=-0.509838-1.201720I$ $b=\ \ 0.98641+2.70994I$	$4.30570-9.22114I$	0
$u=\ \ 1.294890+0.298366I$ $a=-0.593820+1.053360I$ $b=\ \ 1.34923-1.89030I$	$3.04546+1.07755I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.294890 - 0.298366I$ $a = -0.593820 - 1.053360I$ $b = 1.34923 + 1.89030I$	$3.04546 - 1.07755I$	0
$u = 1.324670 + 0.118649I$ $a = 1.300120 + 0.239979I$ $b = -1.26577 - 0.69203I$	$7.92836 - 5.05927I$	0
$u = 1.324670 - 0.118649I$ $a = 1.300120 - 0.239979I$ $b = -1.26577 + 0.69203I$	$7.92836 + 5.05927I$	0
$u = -0.168792 + 0.644253I$ $a = 1.075160 + 0.846995I$ $b = -0.303616 + 0.146890I$	$-1.26238 + 1.26752I$	0
$u = -0.168792 - 0.644253I$ $a = 1.075160 - 0.846995I$ $b = -0.303616 - 0.146890I$	$-1.26238 - 1.26752I$	0
$u = 1.33728$ $a = 0.884739$ $b = -0.562692$	3.14559	0
$u = -0.225743 + 0.605662I$ $a = -0.85345 - 1.22257I$ $b = -0.871486 + 0.326644I$	$2.94982 + 7.40247I$	$0. - 6.37798I$
$u = -0.225743 - 0.605662I$ $a = -0.85345 + 1.22257I$ $b = -0.871486 - 0.326644I$	$2.94982 - 7.40247I$	$0. + 6.37798I$
$u = -0.024150 + 0.637120I$ $a = -0.76910 + 1.73292I$ $b = -0.0225561 + 0.0154055I$	$-4.27900 - 1.74395I$	$-13.30081 + 4.30618I$
$u = -0.024150 - 0.637120I$ $a = -0.76910 - 1.73292I$ $b = -0.0225561 - 0.0154055I$	$-4.27900 + 1.74395I$	$-13.30081 - 4.30618I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.335710+0.305614I$ $a=\ \ 0.542047+0.916983I$ $b=-1.20357-1.59570I$	$3.15814-6.05638I$	0
$u=-1.335710-0.305614I$ $a=\ \ 0.542047-0.916983I$ $b=-1.20357+1.59570I$	$3.15814+6.05638I$	0
$u=-1.37438$ $a=-0.140023$ $b=-1.04115$	3.78742	0
$u=\ \ 1.374070+0.094273I$ $a=\ \ 0.064446-0.305779I$ $b=\ \ 1.135960+0.807885I$	$8.10829+2.97693I$	0
$u=\ \ 1.374070-0.094273I$ $a=\ \ 0.064446+0.305779I$ $b=\ \ 1.135960-0.807885I$	$8.10829-2.97693I$	0
$u=-1.387360+0.076160I$ $a=-0.046875-0.247195I$ $b=-1.218360+0.665416I$	$8.06310+2.74688I$	0
$u=-1.387360-0.076160I$ $a=-0.046875+0.247195I$ $b=-1.218360-0.665416I$	$8.06310-2.74688I$	0
$u=\ \ 0.234686+0.541606I$ $a=\ \ 1.03150-1.12299I$ $b=\ \ 0.896775+0.385966I$	$3.98355-1.42403I$	$0.+1.79463I$
$u=\ \ 0.234686-0.541606I$ $a=\ \ 1.03150+1.12299I$ $b=\ \ 0.896775-0.385966I$	$3.98355+1.42403I$	$0.-1.79463I$
$u=-1.36420+0.45250I$ $a=\ \ 0.161610+0.880893I$ $b=-0.59823-1.58574I$	$2.88325-6.18656I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.36420-0.45250I$ $a=\ \ 0.161610-0.880893I$ $b=-0.59823+1.58574I$	$2.88325+6.18656I$	0
$u=-0.097025+0.541005I$ $a=-1.18908+2.16565I$ $b=-0.074791-0.242803I$	$-0.00951-6.14995I$	$-5.15912+9.56291I$
$u=-0.097025-0.541005I$ $a=-1.18908-2.16565I$ $b=-0.074791+0.242803I$	$-0.00951+6.14995I$	$-5.15912-9.56291I$
$u=\ \ 1.37299+0.46766I$ $a=\ \ 0.249032-0.815727I$ $b=-0.10539+1.89819I$	$10.47990+1.18464I$	0
$u=\ \ 1.37299-0.46766I$ $a=\ \ 0.249032+0.815727I$ $b=-0.10539-1.89819I$	$10.47990-1.18464I$	0
$u=-1.38714+0.47525I$ $a=-0.270723-0.849451I$ $b=\ \ 0.21800+1.95630I$	$11.00770-7.48541I$	0
$u=-1.38714-0.47525I$ $a=-0.270723+0.849451I$ $b=\ \ 0.21800-1.95630I$	$11.00770+7.48541I$	0
$u=-1.37607+0.58086I$ $a=-0.155294+0.832237I$ $b=-0.14543-1.72501I$	$9.60663-10.29480I$	0
$u=-1.37607-0.58086I$ $a=-0.155294-0.832237I$ $b=-0.14543+1.72501I$	$9.60663+10.29480I$	0
$u=-1.41561+0.50043I$ $a=-0.411580-0.926096I$ $b=\ \ 0.69454+1.93625I$	$5.66364-10.19030I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.41561-0.50043I$ $a=-0.411580+0.926096I$ $b=\ 0.69454-1.93625I$	$5.66364+10.19030I$	0
$u=\ 1.41066+0.51448I$ $a=\ 0.433834-0.845199I$ $b=-0.63455+1.70913I$	$2.35588+6.14144I$	0
$u=\ 1.41066-0.51448I$ $a=\ 0.433834+0.845199I$ $b=-0.63455-1.70913I$	$2.35588-6.14144I$	0
$u=\ 1.42266+0.50171I$ $a=\ 0.473417-0.965723I$ $b=-0.89654+1.93561I$	$1.60032+13.57150I$	0
$u=\ 1.42266-0.50171I$ $a=\ 0.473417+0.965723I$ $b=-0.89654-1.93561I$	$1.60032-13.57150I$	0
$u=-1.42480+0.49787I$ $a=-0.426359-1.032130I$ $b=\ 0.89552+2.15822I$	$9.2092-13.5493I$	0
$u=-1.42480-0.49787I$ $a=-0.426359+1.032130I$ $b=\ 0.89552-2.15822I$	$9.2092+13.5493I$	0
$u=\ 0.079356+0.483845I$ $a=\ 1.49364+2.17335I$ $b=-0.023160-0.323983I$	$0.400754+0.769646I$	$-3.62764-4.22124I$
$u=\ 0.079356-0.483845I$ $a=\ 1.49364-2.17335I$ $b=-0.023160+0.323983I$	$0.400754-0.769646I$	$-3.62764+4.22124I$
$u=\ 1.42541+0.49897I$ $a=\ 0.444191-1.046960I$ $b=-0.95958+2.16163I$	$8.2043+19.6713I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.42541 - 0.49897I$ $a = 0.444191 + 1.046960I$ $b = -0.95958 - 2.16163I$	$8.2043 - 19.6713I$	0
$u = 1.39525 + 0.58208I$ $a = 0.149798 + 0.780263I$ $b = 0.10433 - 1.64635I$	$10.17640 + 4.23781I$	0
$u = 1.39525 - 0.58208I$ $a = 0.149798 - 0.780263I$ $b = 0.10433 + 1.64635I$	$10.17640 - 4.23781I$	0
$u = 1.51992 + 0.49926I$ $a = -0.079425 + 0.555517I$ $b = 0.320286 - 1.115130I$	$5.20990 + 2.59443I$	0
$u = 1.51992 - 0.49926I$ $a = -0.079425 - 0.555517I$ $b = 0.320286 + 1.115130I$	$5.20990 - 2.59443I$	0
$u = 0.256326 + 0.097023I$ $a = 1.15434 + 1.45578I$ $b = 0.837599 + 0.492157I$	$1.35101 + 1.14697I$	$4.21689 - 0.23530I$
$u = 0.256326 - 0.097023I$ $a = 1.15434 - 1.45578I$ $b = 0.837599 - 0.492157I$	$1.35101 - 1.14697I$	$4.21689 + 0.23530I$
$u = 1.59558 + 0.74938I$ $a = 0.132239 + 0.277814I$ $b = -0.262690 - 0.665385I$	$7.92798 - 0.71672I$	0
$u = 1.59558 - 0.74938I$ $a = 0.132239 - 0.277814I$ $b = -0.262690 + 0.665385I$	$7.92798 + 0.71672I$	0
$u = -1.56554 + 0.82526I$ $a = -0.165697 + 0.215774I$ $b = 0.376825 - 0.530305I$	$6.78955 + 6.87071I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.56554-0.82526I$ $a=-0.165697-0.215774I$ $b=\ \ 0.376825+0.530305I$	$6.78955-6.87071I$	0
$u=-0.050337+0.143727I$ $a=\ \ 6.05261-4.40226I$ $b=\ \ 0.895601+0.771524I$	$5.51740+2.45186I$	$1.48976-2.21266I$
$u=-0.050337-0.143727I$ $a=\ \ 6.05261+4.40226I$ $b=\ \ 0.895601-0.771524I$	$5.51740-2.45186I$	$1.48976+2.21266I$
$u=\ \ 0.088004+0.112374I$ $a=-5.42303-6.59172I$ $b=-0.859983+0.833552I$	$4.87849-8.36632I$	$0.05497+7.74602I$
$u=\ \ 0.088004-0.112374I$ $a=-5.42303+6.59172I$ $b=-0.859983-0.833552I$	$4.87849+8.36632I$	$0.05497-7.74602I$
$u=-1.85064+0.34572I$ $a=\ \ 0.195358+0.196008I$ $b=-0.417037-0.389154I$	$0.691007-0.095500I$	0
$u=-1.85064-0.34572I$ $a=\ \ 0.195358-0.196008I$ $b=-0.417037+0.389154I$	$0.691007+0.095500I$	0
$u=-0.0329582+0.0764814I$ $a=\ \ 10.97440-2.70410I$ $b=-0.627852-0.639342I$	$-1.12585+3.89050I$	$-4.12840-7.88335I$
$u=-0.0329582-0.0764814I$ $a=\ \ 10.97440+2.70410I$ $b=-0.627852+0.639342I$	$-1.12585-3.89050I$	$-4.12840+7.88335I$

II.

$\boldsymbol{I_2^u = \langle -1.37\times 10^9 u^{29} + 3.00\times 10^9 u^{28} + \cdots + 1.43\times 10^9 b + 1.82\times 10^9,\ 1.09\times 10^9 u^{29} - 3.74\times 10^9 u^{28} + \cdots + 8.56\times 10^9 a - 1.09\times 10^{10},\ u^{30} - 2u^{29} + \cdots + 31u^2 - 6\rangle}$

(i) Arc colorings

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

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

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

$$a_{12} = \begin{pmatrix} -0.127339u^{29} + 0.436443u^{28} + \cdots - 4.56981u + 1.27502 \\ 0.960672u^{29} - 2.10311u^{28} + \cdots + 4.40314u - 1.27502 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 2.07198u^{29} - 2.79558u^{28} + \cdots + 5.20462u + 5.29242 \\ -2.74171u^{29} + 3.42548u^{28} + \cdots - 12.7928u - 8.27471 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.227533u^{29} - 1.39875u^{28} + \cdots + 2.05216u - 1.11252 \\ 0.788279u^{29} + 1.94488u^{28} + \cdots - 0.0942501u + 8.90838 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.376233u^{29} - 0.679520u^{28} + \cdots - 0.930698u + 1.09059 \\ 0.492373u^{29} - 0.980821u^{28} + \cdots + 1.38171u - 0.622106 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -u \\ u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0.373633u^{29} - 1.55557u^{28} + \cdots - 2.41411u + 5.11324 \\ 0.364926u^{29} + 1.57166u^{28} + \cdots - 3.04829u - 1.99902 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.872661u^{29} - 1.56356u^{28} + \cdots + 0.430194u + 1.27502 \\ -0.0393281u^{29} - 0.103110u^{28} + \cdots - 0.596861u - 1.27502 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -0.0399878u^{29} + 0.736908u^{28} + \cdots - 0.839954u + 1.75607 \\ -0.457062u^{29} - 1.24587u^{28} + \cdots - 1.03510u - 9.17756 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -1.20801u^{29} + 1.48368u^{28} + \cdots - 18.4085u - 6.68528 \\ 0.252875u^{29} - 1.22381u^{28} + \cdots + 12.8874u + 2.35677 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -\frac{1857898437}{1426884209}u^{29} + \frac{1101274625}{1426884209}u^{28} + \cdots - \frac{2246147754}{1426884209}u + \frac{2439848022}{1426884209}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{30} - 11u^{29} + \cdots - 24u + 1$
c_2	$u^{30} + u^{29} + \cdots - 2u + 1$
c_3	$u^{30} + u^{28} + \cdots - 4u - 1$
c_4	$u^{30} - 2u^{29} + \cdots + 31u^2 - 6$
c_5	$u^{30} - 2u^{29} + \cdots + 2u^2 - 1$
c_6	$u^{30} - u^{29} + \cdots + 2u + 1$
c_7	$u^{30} + 11u^{29} + \cdots + 24u + 1$
c_8	$u^{30} + 2u^{29} + \cdots + 31u^2 - 6$
c_9	$u^{30} - 15u^{29} + \cdots - u + 1$
c_{10}	$u^{30} + 15u^{29} + \cdots + 84u + 6$
c_{11}	$u^{30} - 2u^{29} + \cdots + 2u + 1$
c_{12}	$u^{30} - 2u^{28} + \cdots - 2u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^{30} + 21y^{29} + \cdots - 188y + 1$
c_2, c_6	$y^{30} - 11y^{29} + \cdots - 24y + 1$
c_3	$y^{30} + 2y^{29} + \cdots - 10y + 1$
c_4, c_8	$y^{30} - 28y^{29} + \cdots - 372y + 36$
c_5	$y^{30} - 12y^{29} + \cdots - 4y + 1$
c_9	$y^{30} + 9y^{29} + \cdots - 33y + 1$
c_{10}	$y^{30} + 9y^{29} + \cdots + 348y + 36$
c_{11}	$y^{30} + 10y^{29} + \cdots - 14y + 1$
c_{12}	$y^{30} - 4y^{29} + \cdots - 12y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.104625 + 0.923256I$ $a = 0.265809 + 0.752869I$ $b = -0.391165 - 0.185290I$	$-2.70916 - 0.36347I$	$-5.68779 + 2.55332I$
$u = 0.104625 - 0.923256I$ $a = 0.265809 - 0.752869I$ $b = -0.391165 + 0.185290I$	$-2.70916 + 0.36347I$	$-5.68779 - 2.55332I$
$u = 0.925210 + 0.632705I$ $a = -0.306492 + 0.692770I$ $b = -0.287678 - 1.045560I$	$-1.04921 + 6.74209I$	$-6.9717 - 17.6770I$
$u = 0.925210 - 0.632705I$ $a = -0.306492 - 0.692770I$ $b = -0.287678 + 1.045560I$	$-1.04921 - 6.74209I$	$-6.9717 + 17.6770I$
$u = 0.441570 + 0.740792I$ $a = -0.983711 + 0.177248I$ $b = 0.339960 + 0.247380I$	$-1.58554 - 2.14623I$	$-3.91271 + 8.26189I$
$u = 0.441570 - 0.740792I$ $a = -0.983711 - 0.177248I$ $b = 0.339960 - 0.247380I$	$-1.58554 + 2.14623I$	$-3.91271 - 8.26189I$
$u = -1.112230 + 0.248377I$ $a = -0.294821 + 0.999761I$ $b = 0.16233 - 2.50771I$	$7.23517 - 3.77455I$	$4.79539 + 3.05652I$
$u = -1.112230 - 0.248377I$ $a = -0.294821 - 0.999761I$ $b = 0.16233 + 2.50771I$	$7.23517 + 3.77455I$	$4.79539 - 3.05652I$
$u = 1.124510 + 0.246615I$ $a = 0.306505 + 1.165960I$ $b = -0.10708 - 2.62249I$	$6.63030 + 9.75976I$	$3.08859 - 8.59497I$
$u = 1.124510 - 0.246615I$ $a = 0.306505 - 1.165960I$ $b = -0.10708 + 2.62249I$	$6.63030 - 9.75976I$	$3.08859 + 8.59497I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.778457+0.328988I$ $a=\ 0.398578+0.589993I$ $b=\ 1.12365-1.22530I$	$1.51678-1.96575I$	$-2.8548+16.4537I$
$u=-0.778457-0.328988I$ $a=\ 0.398578-0.589993I$ $b=\ 1.12365+1.22530I$	$1.51678+1.96575I$	$-2.8548-16.4537I$
$u=\ 1.182520+0.271936I$ $a=-0.272567+1.344390I$ $b=\ 0.54579-2.45540I$	$0.73006+5.74512I$	$-2.34178-9.28764I$
$u=\ 1.182520-0.271936I$ $a=-0.272567-1.344390I$ $b=\ 0.54579+2.45540I$	$0.73006-5.74512I$	$-2.34178+9.28764I$
$u=\ 1.237030+0.243287I$ $a=-0.70204+1.46894I$ $b=\ 1.17190-2.39427I$	$3.45679+2.11535I$	$1.86259-3.59666I$
$u=\ 1.237030-0.243287I$ $a=-0.70204-1.46894I$ $b=\ 1.17190+2.39427I$	$3.45679-2.11535I$	$1.86259+3.59666I$
$u=-1.259130+0.250394I$ $a=\ 0.79304+1.33981I$ $b=-1.24553-2.17631I$	$3.46355-7.24797I$	$1.94305+9.64259I$
$u=-1.259130-0.250394I$ $a=\ 0.79304-1.33981I$ $b=-1.24553+2.17631I$	$3.46355+7.24797I$	$1.94305-9.64259I$
$u=-1.248090+0.349855I$ $a=\ 0.546044+0.996300I$ $b=-0.69469-1.77284I$	$1.21720-3.87858I$	$-2.76696+1.67621I$
$u=-1.248090-0.349855I$ $a=\ 0.546044-0.996300I$ $b=-0.69469+1.77284I$	$1.21720+3.87858I$	$-2.76696-1.67621I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.30305$ $a=-0.317222$ $b=-0.782350$	4.70302	9.03370
$u=-1.338130+0.381633I$ $a=-0.311838-0.253564I$ $b=\ \ 0.144327-0.317309I$	$7.27001+0.65287I$	$1.72726-0.56653I$
$u=-1.338130-0.381633I$ $a=-0.311838+0.253564I$ $b=\ \ 0.144327+0.317309I$	$7.27001-0.65287I$	$1.72726+0.56653I$
$u=\ \ 1.298550+0.502261I$ $a=\ \ 0.214115-0.362845I$ $b=-0.239125-0.159015I$	$6.34080-6.56667I$	$-0.38431+3.74652I$
$u=\ \ 1.298550-0.502261I$ $a=\ \ 0.214115+0.362845I$ $b=-0.239125+0.159015I$	$6.34080+6.56667I$	$-0.38431-3.74652I$
$u=\ \ 0.434303+0.407723I$ $a=-2.20800+0.15427I$ $b=\ \ 0.724963+0.483771I$	$0.610816+0.510651I$	$-4.13449-1.23404I$
$u=\ \ 0.434303-0.407723I$ $a=-2.20800-0.15427I$ $b=\ \ 0.724963-0.483771I$	$0.610816-0.510651I$	$-4.13449+1.23404I$
$u=-0.389560+0.331187I$ $a=\ \ 2.65743+0.42275I$ $b=-0.875054+0.419543I$	$0.28706+4.74128I$	$-5.56195-4.45765I$
$u=-0.389560-0.331187I$ $a=\ \ 2.65743-0.42275I$ $b=-0.875054-0.419543I$	$0.28706-4.74128I$	$-5.56195+4.45765I$
$u=\ \ 2.05761$ $a=\ \ 0.113135$ $b=\ \ 0.0371552$	0.844803	0

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

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -12$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

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

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u-1)(u^{30}-11u^{29}+\cdots-24u+1)(u^{149}+47u^{148}+\cdots+102u+1)$
c_2	$(u-1)(u^{30}+u^{29}+\cdots-2u+1)(u^{149}-u^{148}+\cdots-20u-1)$
c_3	$(u+1)(u^{30}+u^{28}+\cdots-4u-1)$ $\cdot(u^{149}-27u^{147}+\cdots-153572430u-97971703)$
c_4	$u(u^{30}-2u^{29}+\cdots+31u^2-6)(u^{149}+u^{148}+\cdots-2u-2)$
c_5	$(u+1)(u^{30}-2u^{29}+\cdots+2u^2-1)(u^{149}+4u^{148}+\cdots-44u+1)$
c_6	$(u+1)(u^{30}-u^{29}+\cdots+2u+1)(u^{149}-u^{148}+\cdots-20u-1)$
c_7	$(u+1)(u^{30}+11u^{29}+\cdots+24u+1)(u^{149}+47u^{148}+\cdots+102u+1)$
c_8	$u(u^{30}+2u^{29}+\cdots+31u^2-6)(u^{149}+u^{148}+\cdots-2u-2)$
c_9	$(u-1)(u^{30}-15u^{29}+\cdots-u+1)(u^{149}+3u^{148}+\cdots-721u+23)$
c_{10}	$u(u^{30}+15u^{29}+\cdots+84u+6)(u^{149}-12u^{148}+\cdots+84178u-11746)$
c_{11}	$(u+1)(u^{30}-2u^{29}+\cdots+2u+1)$ $\cdot(u^{149}-4u^{148}+\cdots-14272164u+808439)$
c_{12}	$(u-1)(u^{30}-2u^{28}+\cdots-2u-1)$ $\cdot(u^{149}-2u^{148}+\cdots-105006u+72941)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_7	$(y-1)(y^{30}+21y^{29}+\cdots-188y+1)(y^{149}+117y^{148}+\cdots-5398y-1)$
c_2, c_6	$(y-1)(y^{30}-11y^{29}+\cdots-24y+1)(y^{149}-47y^{148}+\cdots+102y-1)$
c_3	$(y-1)(y^{30}+2y^{29}+\cdots-10y+1)$ $\cdot(y^{149}-54y^{148}+\cdots+6189071606881275 04y-9598454588720209)$
c_4, c_8	$y(y^{30}-28y^{29}+\cdots-372y+36)(y^{149}-115y^{148}+\cdots-1060y-4)$
c_5	$(y-1)(y^{30}-12y^{29}+\cdots-4y+1)(y^{149}-12y^{148}+\cdots+134y-1)$
c_9	$(y-1)(y^{30}+9y^{29}+\cdots-33y+1)(y^{149}+21y^{148}+\cdots+46639y-529)$
c_{10}	$y(y^{30}+9y^{29}+\cdots+348y+36)$ $\cdot(y^{149}-42y^{148}+\cdots-5433937780y-137968516)$
c_{11}	$(y-1)(y^{30}+10y^{29}+\cdots-14y+1)$ $\cdot(y^{149}+34y^{148}+\cdots+2349436602660y-653573616721)$
c_{12}	$(y-1)(y^{30}-4y^{29}+\cdots-12y+1)$ $\cdot(y^{149}-36y^{148}+\cdots+321679207278y-5320389481)$