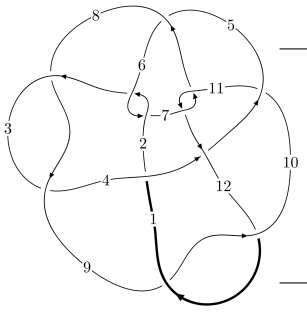
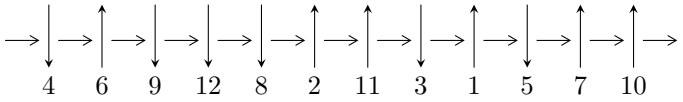
$12a_{0932}$ $(K12a_{0932})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle -2.41105 \times 10^{799} u^{150} + 6.29072 \times 10^{798} u^{149} + \cdots + 1.72778 \times 10^{801} b + 1.45209 \times 10^{805},$$
$$- 1.56739 \times 10^{805} u^{150} + 3.30443 \times 10^{804} u^{149} + \cdots + 1.09830 \times 10^{807} a + 1.08834 \times 10^{811},$$
$$u^{151} + 50u^{149} + \cdots - 12000095u - 635671 \rangle$$
$$I_2^u = \langle -8.46792 \times 10^{33} u^{45} - 3.69547 \times 10^{34} u^{44} + \cdots + 1.19695 \times 10^{33} b + 4.21370 \times 10^{34},$$
$$5.75996 \times 10^{34} u^{45} + 1.92741 \times 10^{35} u^{44} + \cdots + 1.19695 \times 10^{33} a + 1.44621 \times 10^{34},\ u^{46} + 3u^{45} + \cdots + 6u - 1$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 197 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. $\boldsymbol{I_1^u = \langle -2.41 \times 10^{799} u^{150} + 6.29 \times 10^{798} u^{149} + \cdots + 1.73 \times 10^{801} b + 1.45 \times 10^{805},\ -1.57 \times 10^{805} u^{150} + 3.30 \times 10^{804} u^{149} + \cdots + 1.10 \times 10^{807} a + 1.09 \times 10^{811},\ u^{151} + 50 u^{149} + \cdots - 12000095 u - 635671 \rangle}$

(i) Arc colorings

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

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

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

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

$$a_{12} = \begin{pmatrix} 0.0142711 u^{150} - 0.00300868 u^{149} + \cdots - 180539. u - 9909.32 \\ 0.0139546 u^{150} - 0.00364092 u^{149} + \cdots - 147724. u - 8404.37 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.000316499 u^{150} + 0.000632245 u^{149} + \cdots - 32814.9 u - 1504.94 \\ 0.0139546 u^{150} - 0.00364092 u^{149} + \cdots - 147724. u - 8404.37 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.0165871 u^{150} - 0.0245620 u^{149} + \cdots + 237804. u + 12996.9 \\ 0.0277901 u^{150} + 0.00382596 u^{149} + \cdots - 227726. u - 11674.0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.000639872 u^{150} - 0.0193413 u^{149} + \cdots + 135615. u + 7941.56 \\ 0.0243744 u^{150} + 0.00465333 u^{149} + \cdots - 257128. u - 13410.6 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.0114673 u^{150} - 0.00964512 u^{149} + \cdots + 91654.0 u + 5521.75 \\ -0.00414055 u^{150} + 0.0220643 u^{149} + \cdots - 100097. u - 5373.04 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.00508007 u^{150} + 0.00565611 u^{149} + \cdots - 258979. u - 15129.5 \\ 0.00557188 u^{150} + 0.0152743 u^{149} + \cdots - 21634.5 u - 1380.27 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.00519421 u^{150} - 0.00101640 u^{149} + \cdots + 157848. u + 9370.88 \\ 0.0297297 u^{150} - 0.0138827 u^{149} + \cdots - 29277.1 u - 857.438 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.0264609 u^{150} - 0.0231937 u^{149} + \cdots + 416401. u + 21980.2 \\ -0.00507039 u^{150} + 0.00103144 u^{149} + \cdots + 2108.46 u - 139.846 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -0.0706799 u^{150} + 0.0664166 u^{149} + \cdots - 832660. u - 50135.3$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{151} - 15u^{150} + \cdots - 22057694910u + 1658964361$
c_2, c_6	$u^{151} + 50u^{149} + \cdots - 12000095u - 635671$
c_3, c_8	$u^{151} - u^{150} + \cdots + 40642u + 9299$
c_4	$u^{151} + 3u^{150} + \cdots + 191957u - 6301$
c_5	$u^{151} - 7u^{150} + \cdots + 13056495585u - 1546221241$
c_7, c_{11}	$u^{151} - 3u^{150} + \cdots - 44403u - 18287$
c_9, c_{12}	$u^{151} + 5u^{150} + \cdots + 31u + 1$
c_{10}	$u^{151} - u^{150} + \cdots + 2070354906u - 331170187$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{151} - 69y^{150} + \cdots + 1.51 \times 10^{20}y - 2.75 \times 10^{18}$
c_2, c_6	$y^{151} + 100y^{150} + \cdots - 2921995709471y - 404077620241$
c_3, c_8	$y^{151} - 139y^{150} + \cdots - 4712909788y - 86471401$
c_4	$y^{151} - 17y^{150} + \cdots + 25879162721y - 39702601$
c_5	$y^{151} - 83y^{150} + \cdots + 1.37 \times 10^{19}y - 2.39 \times 10^{18}$
c_7, c_{11}	$y^{151} + 93y^{150} + \cdots - 13900794685y - 334414369$
c_9, c_{12}	$y^{151} + 117y^{150} + \cdots - 69y - 1$
c_{10}	$y^{151} - 61y^{150} + \cdots + 8.43 \times 10^{18}y - 1.10 \times 10^{17}$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.865429 + 0.496053I$ $a = -0.268547 - 0.144131I$ $b = -0.169743 + 0.653881I$	$0.24032 + 1.74389I$	0
$u = 0.865429 - 0.496053I$ $a = -0.268547 + 0.144131I$ $b = -0.169743 - 0.653881I$	$0.24032 - 1.74389I$	0
$u = 0.544660 + 0.865037I$ $a = 1.98651 + 1.02388I$ $b = 0.263339 + 1.062250I$	$-5.22891 + 4.97394I$	0
$u = 0.544660 - 0.865037I$ $a = 1.98651 - 1.02388I$ $b = 0.263339 - 1.062250I$	$-5.22891 - 4.97394I$	0
$u = -1.02743$ $a = 2.97107$ $b = 1.32448$	3.05308	0
$u = -0.242033 + 1.033150I$ $a = -1.73031 + 1.26498I$ $b = -0.447359 + 0.918474I$	$-7.80679 - 9.01651I$	0
$u = -0.242033 - 1.033150I$ $a = -1.73031 - 1.26498I$ $b = -0.447359 - 0.918474I$	$-7.80679 + 9.01651I$	0
$u = 0.530409 + 0.774022I$ $a = -0.995330 + 0.824807I$ $b = -0.325630 + 0.719551I$	$-0.139921 + 0.875960I$	0
$u = 0.530409 - 0.774022I$ $a = -0.995330 - 0.824807I$ $b = -0.325630 - 0.719551I$	$-0.139921 - 0.875960I$	0
$u = 0.243570 + 1.042540I$ $a = -1.15722 + 1.81109I$ $b = -0.078889 - 0.972468I$	$-0.83258 + 2.48333I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.243570 - 1.042540I$ $a = -1.15722 - 1.81109I$ $b = -0.078889 + 0.972468I$	$-0.83258 - 2.48333I$	0
$u = 1.061410 + 0.143447I$ $a = 1.90202 + 0.28675I$ $b = 0.947695 + 0.058209I$	$-5.81650 + 7.46022I$	0
$u = 1.061410 - 0.143447I$ $a = 1.90202 - 0.28675I$ $b = 0.947695 - 0.058209I$	$-5.81650 - 7.46022I$	0
$u = 0.129607 + 1.069170I$ $a = 0.05263 - 2.20256I$ $b = -0.042773 + 1.024220I$	$-4.47865 - 1.10856I$	0
$u = 0.129607 - 1.069170I$ $a = 0.05263 + 2.20256I$ $b = -0.042773 - 1.024220I$	$-4.47865 + 1.10856I$	0
$u = -0.265402 + 1.052710I$ $a = 1.54598 - 0.57846I$ $b = 0.522807 - 0.919801I$	$-3.35425 - 5.50168I$	0
$u = -0.265402 - 1.052710I$ $a = 1.54598 + 0.57846I$ $b = 0.522807 + 0.919801I$	$-3.35425 + 5.50168I$	0
$u = -0.900947 + 0.097057I$ $a = 0.337167 - 0.367659I$ $b = 0.214532 - 1.215350I$	$-10.20030 - 3.80821I$	0
$u = -0.900947 - 0.097057I$ $a = 0.337167 + 0.367659I$ $b = 0.214532 + 1.215350I$	$-10.20030 + 3.80821I$	0
$u = -0.298443 + 0.844307I$ $a = -0.951262 - 0.856924I$ $b = 0.311635 - 0.762574I$	$-10.66430 - 2.51485I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.298443-0.844307I$ $a=-0.951262+0.856924I$ $b=\ \ 0.311635+0.762574I$	$-10.66430+2.51485I$	0
$u=\ \ 0.638574+0.902465I$ $a=-1.64056-0.23236I$ $b=-0.290932-0.945919I$	$-0.86401+3.67685I$	0
$u=\ \ 0.638574-0.902465I$ $a=-1.64056+0.23236I$ $b=-0.290932+0.945919I$	$-0.86401-3.67685I$	0
$u=\ \ 0.430723+1.021410I$ $a=\ \ 0.367353-0.044669I$ $b=\ \ 0.587542-0.252811I$	$-2.11097+2.48449I$	0
$u=\ \ 0.430723-1.021410I$ $a=\ \ 0.367353+0.044669I$ $b=\ \ 0.587542+0.252811I$	$-2.11097-2.48449I$	0
$u=\ \ 0.224900+0.861854I$ $a=\ \ 1.98744-0.65991I$ $b=\ \ 0.268852-0.617564I$	$-3.78934+2.50891I$	0
$u=\ \ 0.224900-0.861854I$ $a=\ \ 1.98744+0.65991I$ $b=\ \ 0.268852+0.617564I$	$-3.78934-2.50891I$	0
$u=-0.309284+1.075300I$ $a=\ \ 0.725149+0.242007I$ $b=\ \ 1.039710-0.692197I$	$-8.23597-4.81426I$	0
$u=-0.309284-1.075300I$ $a=\ \ 0.725149-0.242007I$ $b=\ \ 1.039710+0.692197I$	$-8.23597+4.81426I$	0
$u=-0.872510+0.109907I$ $a=-0.341550-0.900308I$ $b=-0.376088-0.847274I$	$-3.69772-1.50417I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.872510-0.109907I$ $a=-0.341550+0.900308I$ $b=-0.376088+0.847274I$	$-3.69772+1.50417I$	0
$u=-0.277223+1.095000I$ $a=-1.266940-0.089463I$ $b=-0.657102+0.996844I$	$-6.51741-2.25945I$	0
$u=-0.277223-1.095000I$ $a=-1.266940+0.089463I$ $b=-0.657102-0.996844I$	$-6.51741+2.25945I$	0
$u=-0.464801+0.730573I$ $a=\ \ 1.82903-1.34189I$ $b=-0.130016-1.106320I$	$-7.01390+6.25687I$	0
$u=-0.464801-0.730573I$ $a=\ \ 1.82903+1.34189I$ $b=-0.130016+1.106320I$	$-7.01390-6.25687I$	0
$u=-0.223093+1.116750I$ $a=-0.554263-0.411086I$ $b=-1.328580-0.018051I$	$-3.61376-6.53097I$	0
$u=-0.223093-1.116750I$ $a=-0.554263+0.411086I$ $b=-1.328580+0.018051I$	$-3.61376+6.53097I$	0
$u=-0.157681+1.132260I$ $a=-0.442803-0.705338I$ $b=-0.833943-0.288319I$	$-5.15589+2.04118I$	0
$u=-0.157681-1.132260I$ $a=-0.442803+0.705338I$ $b=-0.833943+0.288319I$	$-5.15589-2.04118I$	0
$u=-0.342353+1.110630I$ $a=-0.414558-0.051773I$ $b=-0.685358+0.403556I$	$-5.33499-3.86310I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.342353-1.110630I$ $a=-0.414558+0.051773I$ $b=-0.685358-0.403556I$	$-5.33499+3.86310I$	0
$u=-0.220364+1.142150I$ $a=\ \ 0.586780+0.498797I$ $b=\ \ 1.211050+0.255080I$	$-0.25364-1.94629I$	0
$u=-0.220364-1.142150I$ $a=\ \ 0.586780-0.498797I$ $b=\ \ 1.211050-0.255080I$	$-0.25364+1.94629I$	0
$u=\ \ 0.011102+1.168060I$ $a=-1.81662-0.57133I$ $b=-0.590866-0.686481I$	$-7.14480-4.85538I$	0
$u=\ \ 0.011102-1.168060I$ $a=-1.81662+0.57133I$ $b=-0.590866+0.686481I$	$-7.14480+4.85538I$	0
$u=\ \ 0.023141+1.180660I$ $a=\ \ 0.589991-0.360111I$ $b=\ \ 0.81303+1.59511I$	$-10.60990+3.42667I$	0
$u=\ \ 0.023141-1.180660I$ $a=\ \ 0.589991+0.360111I$ $b=\ \ 0.81303-1.59511I$	$-10.60990-3.42667I$	0
$u=\ \ 0.022790+1.186940I$ $a=\ \ 1.287750+0.451193I$ $b=\ \ 0.748027+0.595783I$	$-2.38157-0.70111I$	0
$u=\ \ 0.022790-1.186940I$ $a=\ \ 1.287750-0.451193I$ $b=\ \ 0.748027-0.595783I$	$-2.38157+0.70111I$	0
$u=\ \ 0.517442+0.619554I$ $a=-0.16912-1.85951I$ $b=-0.026688-1.051580I$	$-4.59461-0.62986I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.517442 - 0.619554I$ $a = -0.16912 + 1.85951I$ $b = -0.026688 + 1.051580I$	$-4.59461 + 0.62986I$	0
$u = 0.236059 + 0.770587I$ $a = 3.37427 - 1.48040I$ $b = 0.053774 + 0.746655I$	$-5.31765 + 5.61402I$	0
$u = 0.236059 - 0.770587I$ $a = 3.37427 + 1.48040I$ $b = 0.053774 - 0.746655I$	$-5.31765 - 5.61402I$	0
$u = -0.049615 + 1.202690I$ $a = 1.05417 - 1.15879I$ $b = 0.525700 + 1.129350I$	$-12.49350 + 1.20983I$	0
$u = -0.049615 - 1.202690I$ $a = 1.05417 + 1.15879I$ $b = 0.525700 - 1.129350I$	$-12.49350 - 1.20983I$	0
$u = 0.584037 + 0.541159I$ $a = 0.207858 + 0.476487I$ $b = 0.126923 + 0.752522I$	$-0.147746 + 1.239980I$	0
$u = 0.584037 - 0.541159I$ $a = 0.207858 - 0.476487I$ $b = 0.126923 - 0.752522I$	$-0.147746 - 1.239980I$	0
$u = 0.422029 + 0.674736I$ $a = -0.208595 + 0.256715I$ $b = -0.019292 + 0.489149I$	$-0.150324 + 1.191570I$	0
$u = 0.422029 - 0.674736I$ $a = -0.208595 - 0.256715I$ $b = -0.019292 - 0.489149I$	$-0.150324 - 1.191570I$	0
$u = -0.005809 + 1.209250I$ $a = -0.775376 + 0.595738I$ $b = -0.67186 - 1.30048I$	$-7.68026 + 2.12334I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.005809-1.209250I$ $a=-0.775376-0.595738I$ $b=-0.67186+1.30048I$	$-7.68026-2.12334I$	0
$u=-0.780610+0.123255I$ $a=-0.705884-0.912679I$ $b=-0.490970-1.233500I$	$-4.51635+8.61713I$	0
$u=-0.780610-0.123255I$ $a=-0.705884+0.912679I$ $b=-0.490970+1.233500I$	$-4.51635-8.61713I$	0
$u=\ \ 0.889337+0.826648I$ $a=-0.921696-0.254962I$ $b=-0.261736-0.935220I$	$-0.68326+4.13158I$	0
$u=\ \ 0.889337-0.826648I$ $a=-0.921696+0.254962I$ $b=-0.261736+0.935220I$	$-0.68326-4.13158I$	0
$u=-0.551982+0.557205I$ $a=-1.09061+1.48623I$ $b=\ \ 0.114194+1.055160I$	$-1.98667+2.38452I$	0
$u=-0.551982-0.557205I$ $a=-1.09061-1.48623I$ $b=\ \ 0.114194-1.055160I$	$-1.98667-2.38452I$	0
$u=-0.536840+1.099030I$ $a=-0.0499611+0.0855238I$ $b=-0.153416+0.527398I$	$-5.18855-3.89854I$	0
$u=-0.536840-1.099030I$ $a=-0.0499611-0.0855238I$ $b=-0.153416-0.527398I$	$-5.18855+3.89854I$	0
$u=-0.026662+1.226840I$ $a=-1.031000-0.148899I$ $b=-1.104570-0.731839I$	$-5.21433+4.11104I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.026662-1.226840I$ $a=-1.031000+0.148899I$ $b=-1.104570+0.731839I$	$-5.21433-4.11104I$	0
$u=-0.740949+0.210292I$ $a=0.779348+1.100260I$ $b=0.497411+1.187600I$	$-0.53238+4.13880I$	0
$u=-0.740949-0.210292I$ $a=0.779348-1.100260I$ $b=0.497411-1.187600I$	$-0.53238-4.13880I$	0
$u=0.088278+1.227140I$ $a=-0.313874+0.509264I$ $b=-0.29913-1.62071I$	$-9.64732+0.27043I$	0
$u=0.088278-1.227140I$ $a=-0.313874-0.509264I$ $b=-0.29913+1.62071I$	$-9.64732-0.27043I$	0
$u=-0.718372+0.130287I$ $a=0.757620+0.576115I$ $b=0.705582+0.317866I$	$-5.57819+0.95362I$	0
$u=-0.718372-0.130287I$ $a=0.757620-0.576115I$ $b=0.705582-0.317866I$	$-5.57819-0.95362I$	0
$u=0.694922+0.180838I$ $a=-1.76585-1.29723I$ $b=-0.393984-0.079643I$	$0.93187+2.46526I$	0
$u=0.694922-0.180838I$ $a=-1.76585+1.29723I$ $b=-0.393984+0.079643I$	$0.93187-2.46526I$	0
$u=-0.338018+1.238260I$ $a=0.097805+0.281128I$ $b=0.653616+0.080122I$	$-9.70476-2.81066I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.338018-1.238260I$ $a=\ 0.097805-0.281128I$ $b=\ 0.653616-0.080122I$	$-9.70476+2.81066I$	0
$u=\ 0.684993+0.202292I$ $a=\ 0.573798-0.249534I$ $b=\ 0.337461+0.567327I$	$0.03770+1.55930I$	0
$u=\ 0.684993-0.202292I$ $a=\ 0.573798+0.249534I$ $b=\ 0.337461-0.567327I$	$0.03770-1.55930I$	0
$u=\ 0.075513+1.297180I$ $a=\ 0.352206-0.683539I$ $b=\ 0.319398+1.358910I$	$-6.12604+2.87334I$	0
$u=\ 0.075513-1.297180I$ $a=\ 0.352206+0.683539I$ $b=\ 0.319398-1.358910I$	$-6.12604-2.87334I$	0
$u=-0.383926+1.242470I$ $a=-1.58358-0.48738I$ $b=-0.622129+1.263270I$	$-7.94194-3.63600I$	0
$u=-0.383926-1.242470I$ $a=-1.58358+0.48738I$ $b=-0.622129-1.263270I$	$-7.94194+3.63600I$	0
$u=\ 0.402982+1.236750I$ $a=\ 0.945176-0.790667I$ $b=\ 0.278268+1.025640I$	$-4.26480+5.68885I$	0
$u=\ 0.402982-1.236750I$ $a=\ 0.945176+0.790667I$ $b=\ 0.278268-1.025640I$	$-4.26480-5.68885I$	0
$u=-0.697140$ $a=-0.683406$ $b=-0.509534$	-2.09215	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.126950+0.673716I$ $a=\ \ 0.566957-0.619186I$ $b=-0.016370-1.065140I$	$-3.58274-2.29086I$	0
$u=-1.126950-0.673716I$ $a=\ \ 0.566957+0.619186I$ $b=-0.016370+1.065140I$	$-3.58274+2.29086I$	0
$u=-0.397256+1.257510I$ $a=\ \ 1.37131+0.49851I$ $b=\ \ 0.60803-1.35519I$	$-3.94419-8.42195I$	0
$u=-0.397256-1.257510I$ $a=\ \ 1.37131-0.49851I$ $b=\ \ 0.60803+1.35519I$	$-3.94419+8.42195I$	0
$u=-0.413412+1.260990I$ $a=-1.307750-0.524959I$ $b=-0.58013+1.40879I$	$-8.0994-13.0437I$	0
$u=-0.413412-1.260990I$ $a=-1.307750+0.524959I$ $b=-0.58013-1.40879I$	$-8.0994+13.0437I$	0
$u=\ \ 1.336700+0.058716I$ $a=\ \ 0.944357-0.873808I$ $b=\ \ 0.486507-1.325130I$	$-10.0374-12.6004I$	0
$u=\ \ 1.336700-0.058716I$ $a=\ \ 0.944357+0.873808I$ $b=\ \ 0.486507+1.325130I$	$-10.0374+12.6004I$	0
$u=-0.603853+0.263884I$ $a=-0.802637-0.308458I$ $b=-0.405901+1.036810I$	$-4.74200-3.35284I$	0
$u=-0.603853-0.263884I$ $a=-0.802637+0.308458I$ $b=-0.405901-1.036810I$	$-4.74200+3.35284I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.020947+1.371670I$ $a=-0.233442+0.731342I$ $b=-0.376381-1.258700I$	$-9.67693+6.00190I$	0
$u=-0.020947-1.371670I$ $a=-0.233442-0.731342I$ $b=-0.376381+1.258700I$	$-9.67693-6.00190I$	0
$u=-0.504923+1.297790I$ $a=0.0816543-0.0797088I$ $b=-0.273500-0.474278I$	$-7.97110-6.61693I$	0
$u=-0.504923-1.297790I$ $a=0.0816543+0.0797088I$ $b=-0.273500+0.474278I$	$-7.97110+6.61693I$	0
$u=1.283560+0.549496I$ $a=1.07012-1.23907I$ $b=0.61326-1.34358I$	$-9.38239+1.82696I$	0
$u=1.283560-0.549496I$ $a=1.07012+1.23907I$ $b=0.61326+1.34358I$	$-9.38239-1.82696I$	0
$u=-0.464924+1.330000I$ $a=1.136870+0.564568I$ $b=0.314220-1.378770I$	$-14.5302-8.7392I$	0
$u=-0.464924-1.330000I$ $a=1.136870-0.564568I$ $b=0.314220+1.378770I$	$-14.5302+8.7392I$	0
$u=-0.64740+1.27955I$ $a=-1.048540-0.223562I$ $b=-0.066452+1.225290I$	$-13.35040-1.75878I$	0
$u=-0.64740-1.27955I$ $a=-1.048540+0.223562I$ $b=-0.066452-1.225290I$	$-13.35040+1.75878I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.32457+1.39796I$ $a=\ 1.04377+1.00993I$ $b=\ 0.448353-1.188110I$	$-12.9233-7.0405I$	0
$u=-0.32457-1.39796I$ $a=\ 1.04377-1.00993I$ $b=\ 0.448353+1.188110I$	$-12.9233+7.0405I$	0
$u=-0.41369+1.37876I$ $a=-1.072420-0.722761I$ $b=-0.375376+1.258440I$	$-9.76629-7.56388I$	0
$u=-0.41369-1.37876I$ $a=-1.072420+0.722761I$ $b=-0.375376-1.258440I$	$-9.76629+7.56388I$	0
$u=-0.491824+0.244071I$ $a=-1.51385-0.82558I$ $b=-0.856769+0.152674I$	$-1.17186+3.67564I$	0
$u=-0.491824-0.244071I$ $a=-1.51385+0.82558I$ $b=-0.856769-0.152674I$	$-1.17186-3.67564I$	0
$u=-0.431984+0.305923I$ $a=\ 1.92708+1.10809I$ $b=\ 0.792100-0.317195I$	$2.25352-0.69683I$	$7.44590+0.I$
$u=-0.431984-0.305923I$ $a=\ 1.92708-1.10809I$ $b=\ 0.792100+0.317195I$	$2.25352+0.69683I$	$7.44590+0.I$
$u=-0.396941+0.336276I$ $a=-1.52035-1.99706I$ $b=-0.744801+0.481588I$	$-2.17631-5.57718I$	$0.+8.62109I$
$u=-0.396941-0.336276I$ $a=-1.52035+1.99706I$ $b=-0.744801-0.481588I$	$-2.17631+5.57718I$	$0.-8.62109I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.48151 + 1.40006I$ $a = 0.991155 - 0.517715I$ $b = 1.217320 - 0.157107I$	$-10.6351 + 12.9244I$	0
$u = 0.48151 - 1.40006I$ $a = 0.991155 + 0.517715I$ $b = 1.217320 + 0.157107I$	$-10.6351 - 12.9244I$	0
$u = -1.45426 + 0.30736I$ $a = -0.0456150 + 0.0626014I$ $b = -0.039145 + 1.001670I$	$-3.34812 - 2.67835I$	0
$u = -1.45426 - 0.30736I$ $a = -0.0456150 - 0.0626014I$ $b = -0.039145 - 1.001670I$	$-3.34812 + 2.67835I$	0
$u = -0.387947 + 0.326373I$ $a = -0.97702 - 2.12459I$ $b = -0.411692 - 1.107850I$	$-5.08267 + 0.03805I$	0
$u = -0.387947 - 0.326373I$ $a = -0.97702 + 2.12459I$ $b = -0.411692 + 1.107850I$	$-5.08267 - 0.03805I$	0
$u = 1.50842 + 0.15989I$ $a = -0.802603 + 1.034310I$ $b = -0.44633 + 1.40123I$	$-4.57413 - 6.15030I$	0
$u = 1.50842 - 0.15989I$ $a = -0.802603 - 1.034310I$ $b = -0.44633 - 1.40123I$	$-4.57413 + 6.15030I$	0
$u = 0.28443 + 1.51858I$ $a = 0.140763 - 0.107784I$ $b = 0.36207 - 1.56249I$	$-16.4901 + 6.9537I$	0
$u = 0.28443 - 1.51858I$ $a = 0.140763 + 0.107784I$ $b = 0.36207 + 1.56249I$	$-16.4901 - 6.9537I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.46256 + 1.48899I$ $a = -1.171880 + 0.440110I$ $b = -1.306040 + 0.156612I$	$-5.03868 + 6.92488I$	0
$u = 0.46256 - 1.48899I$ $a = -1.171880 - 0.440110I$ $b = -1.306040 - 0.156612I$	$-5.03868 - 6.92488I$	0
$u = 0.61845 + 1.43769I$ $a = 1.51618 - 0.17264I$ $b = 0.62683 + 1.36009I$	$-14.4541 + 19.4053I$	0
$u = 0.61845 - 1.43769I$ $a = 1.51618 + 0.17264I$ $b = 0.62683 - 1.36009I$	$-14.4541 - 19.4053I$	0
$u = -0.369591 + 0.227298I$ $a = 1.65932 + 1.13012I$ $b = 0.582680 - 1.110040I$	$-7.73847 - 3.93611I$	$-3.85928 + 2.86538I$
$u = -0.369591 - 0.227298I$ $a = 1.65932 - 1.13012I$ $b = 0.582680 + 1.110040I$	$-7.73847 + 3.93611I$	$-3.85928 - 2.86538I$
$u = 0.70516 + 1.40284I$ $a = 1.25706 - 0.84733I$ $b = 1.157540 - 0.475298I$	$-9.30790 - 1.06886I$	0
$u = 0.70516 - 1.40284I$ $a = 1.25706 + 0.84733I$ $b = 1.157540 + 0.475298I$	$-9.30790 + 1.06886I$	0
$u = 0.65088 + 1.48622I$ $a = -1.44384 + 0.02456I$ $b = -0.62453 - 1.38658I$	$-9.0435 + 13.6226I$	0
$u = 0.65088 - 1.48622I$ $a = -1.44384 - 0.02456I$ $b = -0.62453 + 1.38658I$	$-9.0435 - 13.6226I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.44507+1.57390I$ $a=-0.666378-0.652113I$ $b=-0.282230+1.089450I$	$-9.92471-9.20125I$	0
$u=-0.44507-1.57390I$ $a=-0.666378+0.652113I$ $b=-0.282230-1.089450I$	$-9.92471+9.20125I$	0
$u=-0.64408+1.50566I$ $a=\ \ 0.760212+0.372833I$ $b=\ \ 0.166863-1.139230I$	$-7.51354-4.93051I$	0
$u=-0.64408-1.50566I$ $a=\ \ 0.760212-0.372833I$ $b=\ \ 0.166863+1.139230I$	$-7.51354+4.93051I$	0
$u=\ \ 1.67334$ $a=-2.44555$ $b=-1.51359$	0.908689	0
$u=\ \ 0.31458+1.66622I$ $a=-0.115652+0.232418I$ $b=-0.28548+1.54537I$	$-11.38410+0.88058I$	0
$u=\ \ 0.31458-1.66622I$ $a=-0.115652-0.232418I$ $b=-0.28548-1.54537I$	$-11.38410-0.88058I$	0
$u=\ \ 0.83224+1.48979I$ $a=\ \ 1.62547+0.30382I$ $b=\ \ 0.73549+1.41846I$	$-12.27440+6.24270I$	0
$u=\ \ 0.83224-1.48979I$ $a=\ \ 1.62547-0.30382I$ $b=\ \ 0.73549-1.41846I$	$-12.27440-6.24270I$	0
$u=\ \ 0.47177+1.65571I$ $a=\ \ 0.036914-0.181850I$ $b=\ \ 0.28968-1.42137I$	$-15.6887-5.6373I$	0

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$0.47177-1.65571I$		
$a=$	$0.036914+0.181850I$	$-15.6887+5.6373I$	0
$b=$	$0.28968+1.42137I$		

II.

$\boldsymbol{I_2^u = \langle -8.47\times 10^{33}u^{45} - 3.70\times 10^{34}u^{44} + \cdots + 1.20\times 10^{33}b + 4.21\times 10^{34},\ 5.76\times 10^{34}u^{45} + 1.93\times 10^{35}u^{44} + \cdots + 1.20\times 10^{33}a + 1.45\times 10^{34},\ u^{46} + 3u^{45} + \cdots + 6u - 1\rangle}$

(i) Arc colorings

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

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

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

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

$$a_{12} = \begin{pmatrix} -48.1220u^{45} - 161.027u^{44} + \cdots + 269.890u - 12.0825 \\ 7.07458u^{45} + 30.8741u^{44} + \cdots + 174.979u - 35.2036 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -55.1965u^{45} - 191.901u^{44} + \cdots + 94.9112u + 23.1211 \\ 7.07458u^{45} + 30.8741u^{44} + \cdots + 174.979u - 35.2036 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 17.8062u^{45} - 7.62026u^{44} + \cdots - 1498.06u + 278.877 \\ -14.4006u^{45} - 46.3463u^{44} + \cdots - 73.7044u + 27.9560 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1.49900u^{45} - 44.8909u^{44} + \cdots - 1173.54u + 227.493 \\ -23.6439u^{45} - 64.9481u^{44} + \cdots + 164.606u - 11.7774 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -204.953u^{45} - 638.854u^{44} + \cdots + 1845.90u - 238.051 \\ -37.4147u^{45} - 87.5691u^{44} + \cdots + 851.882u - 142.972 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -5.53221u^{45} + 23.2553u^{44} + \cdots + 578.202u - 116.046 \\ 14.5588u^{45} + 75.0043u^{44} + \cdots + 302.558u - 71.1940 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 100.135u^{45} + 264.308u^{44} + \cdots - 1583.23u + 271.409 \\ 2.69527u^{45} - 42.9712u^{44} + \cdots - 802.705u + 163.900 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 348.927u^{45} + 1171.16u^{44} + \cdots - 165.318u - 166.841 \\ 87.5862u^{45} + 262.982u^{44} + \cdots - 640.454u + 70.1859 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 131.081u^{45} + 402.148u^{44} + \cdots - 1446.57u + 184.859$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{46} - 6u^{45} + \cdots - 345u + 73$
c_2	$u^{46} - 3u^{45} + \cdots - 6u - 1$
c_3	$u^{46} - 23u^{44} + \cdots + 15u + 9$
c_4	$u^{46} - 2u^{45} + \cdots + 2u - 1$
c_5	$u^{46} - 12u^{45} + \cdots - 12u + 1$
c_6	$u^{46} + 3u^{45} + \cdots + 6u - 1$
c_7	$u^{46} - 2u^{45} + \cdots + 2u - 1$
c_8	$u^{46} - 23u^{44} + \cdots - 15u + 9$
c_9	$u^{46} + 6u^{45} + \cdots + 62u + 7$
c_{10}	$u^{46} - 4u^{44} + \cdots + 33u - 9$
c_{11}	$u^{46} + 2u^{45} + \cdots - 2u - 1$
c_{12}	$u^{46} - 6u^{45} + \cdots - 62u + 7$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{46} - 24y^{45} + \cdots - 12883y + 5329$
c_2, c_6	$y^{46} + 21y^{45} + \cdots + 28y + 1$
c_3, c_8	$y^{46} - 46y^{45} + \cdots - 2043y + 81$
c_4	$y^{46} + 8y^{45} + \cdots - 68y + 1$
c_5	$y^{46} - 14y^{45} + \cdots + 1064y + 1$
c_7, c_{11}	$y^{46} + 22y^{45} + \cdots + 30y + 1$
c_9, c_{12}	$y^{46} + 34y^{45} + \cdots - 78y + 49$
c_{10}	$y^{46} - 8y^{45} + \cdots - 315y + 81$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.877897 + 0.554676I$ $a = -0.521000 - 0.087318I$ $b = -0.124352 + 0.812099I$	$-0.33376 + 1.93837I$	$-7.58118 - 4.65231I$
$u = \quad 0.877897 - 0.554676I$ $a = -0.521000 + 0.087318I$ $b = -0.124352 - 0.812099I$	$-0.33376 - 1.93837I$	$-7.58118 + 4.65231I$
$u = \quad 1.04295$ $a = -2.99015$ $b = -1.36593$	3.00070	-79.7240
$u = \quad 0.314538 + 0.876488I$ $a = -0.661253 + 0.701113I$ $b = -0.686004 + 0.198355I$	$0.86731 + 1.36984I$	$4.16726 - 2.20924I$
$u = \quad 0.314538 - 0.876488I$ $a = -0.661253 - 0.701113I$ $b = -0.686004 - 0.198355I$	$0.86731 - 1.36984I$	$4.16726 + 2.20924I$
$u = \quad 0.446542 + 0.983388I$ $a = \quad 2.05662 - 0.08252I$ $b = \quad 0.248104 + 0.782385I$	$-4.15338 + 3.97411I$	$-4.27708 - 3.90046I$
$u = \quad 0.446542 - 0.983388I$ $a = \quad 2.05662 + 0.08252I$ $b = \quad 0.248104 - 0.782385I$	$-4.15338 - 3.97411I$	$-4.27708 + 3.90046I$
$u = -0.162379 + 0.896640I$ $a = -0.583815 + 0.146614I$ $b = -0.783972 + 1.044000I$	$-8.79531 - 4.00405I$	$-12.01832 + 2.80318I$
$u = -0.162379 - 0.896640I$ $a = -0.583815 - 0.146614I$ $b = -0.783972 - 1.044000I$	$-8.79531 + 4.00405I$	$-12.01832 - 2.80318I$
$u = -0.035254 + 1.164750I$ $a = -0.429805 + 0.629812I$ $b = -0.65976 - 1.40509I$	$-10.03850 + 3.13430I$	$-6.98568 + 0.I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.035254-1.164750I$ $a=-0.429805-0.629812I$ $b=-0.65976+1.40509I$	$-10.03850-3.13430I$	$-6.98568+0.I$
$u=-1.093280+0.411654I$ $a=\ \ 0.754734-0.257030I$ $b=\ \ 0.343340-1.083710I$	$-4.05150-4.02769I$	0
$u=-1.093280-0.411654I$ $a=\ \ 0.754734+0.257030I$ $b=\ \ 0.343340+1.083710I$	$-4.05150+4.02769I$	0
$u=\ \ 0.768041+0.882116I$ $a=-1.41344-0.26949I$ $b=-0.258376-0.988006I$	$-1.30679+3.83387I$	0
$u=\ \ 0.768041-0.882116I$ $a=-1.41344+0.26949I$ $b=-0.258376+0.988006I$	$-1.30679-3.83387I$	0
$u=\ \ 0.251587+0.790476I$ $a=-0.06808-2.67707I$ $b=\ \ 0.078390-0.606022I$	$-3.21132-0.99195I$	$0.366042-0.481747I$
$u=\ \ 0.251587-0.790476I$ $a=-0.06808+2.67707I$ $b=\ \ 0.078390+0.606022I$	$-3.21132+0.99195I$	$0.366042+0.481747I$
$u=\ \ 0.422157+0.658850I$ $a=\ \ 0.231809-1.133400I$ $b=\ \ 0.526101-1.119800I$	$-5.78361+0.48983I$	$-10.39456-2.62224I$
$u=\ \ 0.422157-0.658850I$ $a=\ \ 0.231809+1.133400I$ $b=\ \ 0.526101+1.119800I$	$-5.78361-0.48983I$	$-10.39456+2.62224I$
$u=\ \ 0.105120+0.769808I$ $a=\ \ 0.547161-1.016230I$ $b=\ \ 0.918050+0.327893I$	$-3.01678+5.18219I$	$-5.14806-4.16446I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.105120 - 0.769808I$ $a = 0.547161 + 1.016230I$ $b = 0.918050 - 0.327893I$	$-3.01678 - 5.18219I$	$-5.14806 + 4.16446I$
$u = -0.518149 + 1.122750I$ $a = 0.578181 - 0.007806I$ $b = 0.370495 - 0.625013I$	$-5.02326 - 4.40440I$	0
$u = -0.518149 - 1.122750I$ $a = 0.578181 + 0.007806I$ $b = 0.370495 + 0.625013I$	$-5.02326 + 4.40440I$	0
$u = -0.760439 + 0.978528I$ $a = -1.15238 - 1.36952I$ $b = -0.728445 - 0.862083I$	$-9.45943 - 0.22442I$	0
$u = -0.760439 - 0.978528I$ $a = -1.15238 + 1.36952I$ $b = -0.728445 + 0.862083I$	$-9.45943 + 0.22442I$	0
$u = 0.083792 + 1.267340I$ $a = 0.819679 - 0.472468I$ $b = 0.59725 + 1.41979I$	$-8.80393 + 1.68616I$	0
$u = 0.083792 - 1.267340I$ $a = 0.819679 + 0.472468I$ $b = 0.59725 - 1.41979I$	$-8.80393 - 1.68616I$	0
$u = -0.175520 + 1.260250I$ $a = 0.881425 - 0.062335I$ $b = 1.147650 - 0.438881I$	$-5.51476 - 5.21090I$	0
$u = -0.175520 - 1.260250I$ $a = 0.881425 + 0.062335I$ $b = 1.147650 + 0.438881I$	$-5.51476 + 5.21090I$	0
$u = -0.421706 + 1.280960I$ $a = -0.871703 + 0.210052I$ $b = 0.015574 + 0.641499I$	$-8.51840 - 7.09828I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.421706-1.280960I$ $a=-0.871703-0.210052I$ $b=\ \ 0.015574-0.641499I$	$-8.51840+7.09828I$	0
$u=-1.307410+0.435247I$ $a=-0.0975569+0.0852232I$ $b=\ \ 0.116605+0.793602I$	$-2.55623-2.10745I$	0
$u=-1.307410-0.435247I$ $a=-0.0975569-0.0852232I$ $b=\ \ 0.116605-0.793602I$	$-2.55623+2.10745I$	0
$u=\ \ 0.252828+0.544998I$ $a=-2.64895+1.40976I$ $b=-0.165786+0.641403I$	$0.17776+1.66609I$	$1.70973-2.77092I$
$u=\ \ 0.252828-0.544998I$ $a=-2.64895-1.40976I$ $b=-0.165786-0.641403I$	$0.17776-1.66609I$	$1.70973+2.77092I$
$u=-0.002350+0.568729I$ $a=\ \ 4.34887-2.92072I$ $b=\ \ 0.219183-0.662061I$	$-4.92288+5.09338I$	$-1.32025+0.63790I$
$u=-0.002350-0.568729I$ $a=\ \ 4.34887+2.92072I$ $b=\ \ 0.219183+0.662061I$	$-4.92288-5.09338I$	$-1.32025-0.63790I$
$u=\ \ 0.492802+0.252297I$ $a=-1.58411-2.04054I$ $b=-0.387107-1.131120I$	$-1.86622+4.26035I$	$-3.51889-6.01969I$
$u=\ \ 0.492802-0.252297I$ $a=-1.58411+2.04054I$ $b=-0.387107+1.131120I$	$-1.86622-4.26035I$	$-3.51889+6.01969I$
$u=\ \ 0.117592+0.517197I$ $a=\ \ 3.59196+1.71289I$ $b=\ \ 0.400037+1.081980I$	$-6.70213+7.95792I$	$-6.11007-7.04497I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.117592 - 0.517197I$ $a = 3.59196 - 1.71289I$ $b = 0.400037 - 1.081980I$	$-6.70213 - 7.95792I$	$-6.11007 + 7.04497I$
$u = -0.29644 + 1.45057I$ $a = 0.574281 + 0.815358I$ $b = 0.313485 - 1.220710I$	$-11.2995 - 8.6994I$	0
$u = -0.29644 - 1.45057I$ $a = 0.574281 - 0.815358I$ $b = 0.313485 + 1.220710I$	$-11.2995 + 8.6994I$	0
$u = -0.58639 + 1.36575I$ $a = -1.54293 - 0.34688I$ $b = -0.524851 + 1.236200I$	$-11.20340 - 5.66692I$	0
$u = -0.58639 - 1.36575I$ $a = -1.54293 + 0.34688I$ $b = -0.524851 - 1.236200I$	$-11.20340 + 5.66692I$	0
$u = -1.59010$ $a = 2.37077$ $b = 1.41470$	1.03050	0

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{46}-6u^{45}+\cdots-345u+73)$ $\cdot(u^{151}-15u^{150}+\cdots-22057694910u+1658964361)$
c_2	$(u^{46}-3u^{45}+\cdots-6u-1)$ $\cdot(u^{151}+50u^{149}+\cdots-12000095u-635671)$
c_3	$(u^{46}-23u^{44}+\cdots+15u+9)(u^{151}-u^{150}+\cdots+40642u+9299)$
c_4	$(u^{46}-2u^{45}+\cdots+2u-1)(u^{151}+3u^{150}+\cdots+191957u-6301)$
c_5	$(u^{46}-12u^{45}+\cdots-12u+1)$ $\cdot(u^{151}-7u^{150}+\cdots+13056495585u-1546221241)$
c_6	$(u^{46}+3u^{45}+\cdots+6u-1)$ $\cdot(u^{151}+50u^{149}+\cdots-12000095u-635671)$
c_7	$(u^{46}-2u^{45}+\cdots+2u-1)(u^{151}-3u^{150}+\cdots-44403u-18287)$
c_8	$(u^{46}-23u^{44}+\cdots-15u+9)(u^{151}-u^{150}+\cdots+40642u+9299)$
c_9	$(u^{46}+6u^{45}+\cdots+62u+7)(u^{151}+5u^{150}+\cdots+31u+1)$
c_{10}	$(u^{46}-4u^{44}+\cdots+33u-9)$ $\cdot(u^{151}-u^{150}+\cdots+2070354906u-331170187)$
c_{11}	$(u^{46}+2u^{45}+\cdots-2u-1)(u^{151}-3u^{150}+\cdots-44403u-18287)$
c_{12}	$(u^{46}-6u^{45}+\cdots-62u+7)(u^{151}+5u^{150}+\cdots+31u+1)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{46} - 24y^{45} + \cdots - 12883y + 5329)$ $\cdot (y^{151} - 69y^{150} + \cdots + 1.51 \times 10^{20}y - 2.75 \times 10^{18})$
c_2, c_6	$(y^{46} + 21y^{45} + \cdots + 28y + 1)$ $\cdot (y^{151} + 100y^{150} + \cdots - 2921995709471y - 404077620241)$
c_3, c_8	$(y^{46} - 46y^{45} + \cdots - 2043y + 81)$ $\cdot (y^{151} - 139y^{150} + \cdots - 4712909788y - 86471401)$
c_4	$(y^{46} + 8y^{45} + \cdots - 68y + 1)$ $\cdot (y^{151} - 17y^{150} + \cdots + 25879162721y - 39702601)$
c_5	$(y^{46} - 14y^{45} + \cdots + 1064y + 1)$ $\cdot (y^{151} - 83y^{150} + \cdots + 1.37 \times 10^{19}y - 2.39 \times 10^{18})$
c_7, c_{11}	$(y^{46} + 22y^{45} + \cdots + 30y + 1)$ $\cdot (y^{151} + 93y^{150} + \cdots - 13900794685y - 334414369)$
c_9, c_{12}	$(y^{46} + 34y^{45} + \cdots - 78y + 49)(y^{151} + 117y^{150} + \cdots - 69y - 1)$
c_{10}	$(y^{46} - 8y^{45} + \cdots - 315y + 81)$ $\cdot (y^{151} - 61y^{150} + \cdots + 8.43 \times 10^{18}y - 1.10 \times 10^{17})$