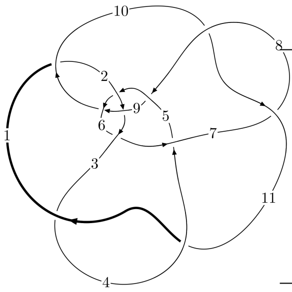
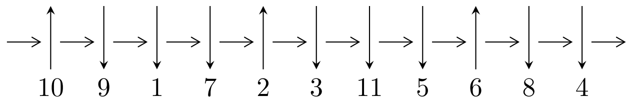
$11a_{271}$ ($K11a_{271}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle b - u,\ -1787419727u^{22} + 404361799u^{21} + \cdots + 1141379489a - 6968741388,$$
$$u^{23} + 10u^{21} + \cdots + 6u + 1\rangle$$
$$I_2^u = \langle -8.66938 \times 10^{235}u^{81} - 4.61286 \times 10^{236}u^{80} + \cdots + 7.40850 \times 10^{236}b - 6.46383 \times 10^{238},$$
$$4.79729 \times 10^{238}u^{81} + 3.73078 \times 10^{239}u^{80} + \cdots + 4.31916 \times 10^{239}a + 1.02668 \times 10^{242},$$
$$u^{82} + 4u^{81} + \cdots + 1581u + 583\rangle$$
$$I_3^u = \langle b + u,\ -2u^7 + u^6 - 6u^5 + u^4 - 6u^3 + a,\ u^8 - u^7 + 4u^6 - 3u^5 + 6u^4 - 4u^3 + 3u^2 - 2u + 1\rangle$$
$$I_4^u = \langle 12u^9 - 27u^8 + 100u^7 - 154u^6 + 247u^5 - 252u^4 + 225u^3 - 149u^2 + b + 59u - 16,$$
$$-u^9 + 3u^8 - 11u^7 + 21u^6 - 37u^5 + 45u^4 - 46u^3 + 34u^2 + a - 18u + 6,$$
$$u^{10} - 3u^9 + 10u^8 - 19u^7 + 30u^6 - 36u^5 + 34u^4 - 26u^3 + 14u^2 - 5u + 1\rangle$$
$$I_5^u = \langle b + u,\ a - u + 1,\ u^2 - u + 1\rangle$$

* 5 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 125 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. $\boldsymbol{I_1^u = \langle b - u,\ -1.79 \times 10^9 u^{22} + 4.04 \times 10^8 u^{21} + \cdots + 1.14 \times 10^9 a - 6.97 \times 10^9,\ u^{23} + 10u^{21} + \cdots + 6u + 1\rangle}$

(i) Arc colorings

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

$$a_{11} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

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

$$a_8 = \begin{pmatrix} 1.56602u^{22} - 0.354275u^{21} + \cdots + 5.26162u + 6.10554 \\ u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1.56602u^{22} - 0.354275u^{21} + \cdots + 6.26162u + 6.10554 \\ u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.0100717u^{22} - 0.0618659u^{21} + \cdots + 9.45541u + 7.55747 \\ 0.474519u^{22} + 0.0483773u^{21} + \cdots + 0.440369u - 0.354275 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1.43020u^{22} - 0.552730u^{21} + \cdots + 4.93721u + 5.70289 \\ -0.0398045u^{22} + 0.0200600u^{21} + \cdots + 1.00214u - 0.204197 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.354275u^{22} + 0.474519u^{21} + \cdots + 3.29056u + 2.56602 \\ -u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.515155u^{22} + 1.53719u^{21} + \cdots + 7.98960u + 2.53517 \\ 0.246833u^{22} - 0.706353u^{21} + \cdots - 3.61365u - 0.610339 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -1.76578u^{22} + 0.872515u^{21} + \cdots + 0.752076u - 1.55408 \\ 0.528715u^{22} - 0.182288u^{21} + \cdots + 0.732677u + 0.346273 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -1.76578u^{22} + 0.872515u^{21} + \cdots + 0.752076u - 1.55408 \\ 0.528715u^{22} - 0.182288u^{21} + \cdots + 0.732677u + 0.346273 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= \frac{1113912392}{1141379489}u^{22} + \frac{1733888615}{1141379489}u^{21} + \cdots + \frac{15405030005}{1141379489}u + \frac{4456929967}{1141379489}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{23} + 22u^{22} + \cdots + 7424u + 512$
c_2	$u^{23} + 19u^{22} + \cdots - 96u - 16$
c_3, c_7, c_{10} c_{11}	$u^{23} + 10u^{21} + \cdots + 6u + 1$
c_4	$u^{23} - 19u^{22} + \cdots - 960u + 256$
c_5, c_9	$u^{23} - u^{22} + \cdots - u + 1$
c_6, c_8	$u^{23} - u^{22} + \cdots + 4u + 4$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{23} - 2y^{22} + \cdots + 11599872y - 262144$
c_2	$y^{23} - 5y^{22} + \cdots - 6016y - 256$
c_3, c_7, c_{10} c_{11}	$y^{23} + 20y^{22} + \cdots + 20y - 1$
c_4	$y^{23} - 7y^{22} + \cdots + 1011712y - 65536$
c_5, c_9	$y^{23} - 3y^{22} + \cdots - 3y - 1$
c_6, c_8	$y^{23} - 9y^{22} + \cdots + 80y - 16$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.097203 + 1.048750I$ $a = -0.88581 - 3.73190I$ $b = 0.097203 + 1.048750I$	$0.41923 - 7.68149I$	$-2.73500 + 7.62634I$
$u = 0.097203 - 1.048750I$ $a = -0.88581 + 3.73190I$ $b = 0.097203 - 1.048750I$	$0.41923 + 7.68149I$	$-2.73500 - 7.62634I$
$u = -0.878283 + 0.234924I$ $a = -0.069448 - 0.504553I$ $b = -0.878283 + 0.234924I$	$-4.00620 + 1.06800I$	$-20.0904 - 5.7474I$
$u = -0.878283 - 0.234924I$ $a = -0.069448 + 0.504553I$ $b = -0.878283 - 0.234924I$	$-4.00620 - 1.06800I$	$-20.0904 + 5.7474I$
$u = 0.832612 + 0.199739I$ $a = 0.269970 - 0.994841I$ $b = 0.832612 + 0.199739I$	$-4.74103 + 7.77621I$	$-9.99957 - 4.77400I$
$u = 0.832612 - 0.199739I$ $a = 0.269970 + 0.994841I$ $b = 0.832612 - 0.199739I$	$-4.74103 - 7.77621I$	$-9.99957 + 4.77400I$
$u = 0.086667 + 1.177120I$ $a = 0.91809 - 1.64121I$ $b = 0.086667 + 1.177120I$	$4.82355 + 1.72572I$	$1.86379 - 3.16589I$
$u = 0.086667 - 1.177120I$ $a = 0.91809 + 1.64121I$ $b = 0.086667 - 1.177120I$	$4.82355 - 1.72572I$	$1.86379 + 3.16589I$
$u = 0.485747 + 0.587883I$ $a = 0.867752 + 0.473235I$ $b = 0.485747 + 0.587883I$	$-1.41194 + 2.54862I$	$-8.72632 - 1.31178I$
$u = 0.485747 - 0.587883I$ $a = 0.867752 - 0.473235I$ $b = 0.485747 - 0.587883I$	$-1.41194 - 2.54862I$	$-8.72632 + 1.31178I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.332148 + 1.312160I$ $a = -1.15057 - 2.08899I$ $b = -0.332148 + 1.312160I$	$6.09809 + 8.12392I$	$3.40597 - 8.83423I$
$u = -0.332148 - 1.312160I$ $a = -1.15057 + 2.08899I$ $b = -0.332148 - 1.312160I$	$6.09809 - 8.12392I$	$3.40597 + 8.83423I$
$u = 0.33824 + 1.37393I$ $a = 0.69111 - 1.66289I$ $b = 0.33824 + 1.37393I$	$9.61085 - 2.02294I$	$3.47785 + 0.15643I$
$u = 0.33824 - 1.37393I$ $a = 0.69111 + 1.66289I$ $b = 0.33824 - 1.37393I$	$9.61085 + 2.02294I$	$3.47785 - 0.15643I$
$u = -0.25671 + 1.41656I$ $a = -0.16528 - 1.74879I$ $b = -0.25671 + 1.41656I$	$6.46756 + 3.72990I$	$2.37255 - 3.19850I$
$u = -0.25671 - 1.41656I$ $a = -0.16528 + 1.74879I$ $b = -0.25671 - 1.41656I$	$6.46756 - 3.72990I$	$2.37255 + 3.19850I$
$u = -0.50959 + 1.43123I$ $a = -0.44449 - 1.89615I$ $b = -0.50959 + 1.43123I$	$3.75645 + 9.55892I$	$-6.8688 - 15.7902I$
$u = -0.50959 - 1.43123I$ $a = -0.44449 + 1.89615I$ $b = -0.50959 - 1.43123I$	$3.75645 - 9.55892I$	$-6.8688 + 15.7902I$
$u = 0.56914 + 1.42280I$ $a = 0.59171 - 1.70238I$ $b = 0.56914 + 1.42280I$	$3.0635 - 18.7890I$	$-2.94689 + 9.73353I$
$u = 0.56914 - 1.42280I$ $a = 0.59171 + 1.70238I$ $b = 0.56914 - 1.42280I$	$3.0635 + 18.7890I$	$-2.94689 - 9.73353I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.329226 + 0.326454I$ $a = \quad 1.012200 + 0.058405I$ $b = -0.329226 + 0.326454I$	$-0.744276 + 1.012620I$	$-5.79242 - 5.25340I$
$u = -0.329226 - 0.326454I$ $a = \quad 1.012200 - 0.058405I$ $b = -0.329226 - 0.326454I$	$-0.744276 - 1.012620I$	$-5.79242 + 5.25340I$
$u = -0.207295$ $a = \quad 5.72955$ $b = -0.207295$	-2.25842	3.07840

II. $\boldsymbol{I_2^u = \langle -8.67 \times 10^{235} u^{81} - 4.61 \times 10^{236} u^{80} + \cdots + 7.41 \times 10^{236} b - 6.46 \times 10^{238},\ 4.80 \times 10^{238} u^{81} + 3.73 \times 10^{239} u^{80} + \cdots + 4.32 \times 10^{239} a + 1.03 \times 10^{242},\ u^{82} + 4u^{81} + \cdots + 1581u + 583 \rangle}$

(i) Arc colorings

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

$$a_{11} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

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

$$a_8 = \begin{pmatrix} -0.111070u^{81} - 0.863775u^{80} + \cdots - 708.703u - 237.704 \\ 0.117019u^{81} + 0.622644u^{80} + \cdots + 301.616u + 87.2488 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0.00594924u^{81} - 0.241131u^{80} + \cdots - 407.086u - 150.455 \\ 0.117019u^{81} + 0.622644u^{80} + \cdots + 301.616u + 87.2488 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.219221u^{81} - 1.23505u^{80} + \cdots - 634.131u - 201.913 \\ 0.150861u^{81} + 0.982201u^{80} + \cdots + 631.616u + 195.251 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.133406u^{81} - 0.938320u^{80} + \cdots - 706.882u - 233.890 \\ 0.131216u^{81} + 0.674433u^{80} + \cdots + 304.040u + 85.3005 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.344459u^{81} - 1.29164u^{80} + \cdots - 52.0179u + 50.8287 \\ 0.00955082u^{81} + 0.102874u^{80} + \cdots + 152.659u + 51.2985 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.605273u^{81} - 2.16854u^{80} + \cdots + 61.9906u + 135.141 \\ 0.382816u^{81} + 1.45114u^{80} + \cdots + 16.4038u - 62.7682 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.344825u^{81} - 1.48129u^{80} + \cdots - 184.980u - 9.26806 \\ 0.138777u^{81} + 0.708851u^{80} + \cdots + 267.957u + 70.7972 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.344825u^{81} - 1.48129u^{80} + \cdots - 184.980u - 9.26806 \\ 0.138777u^{81} + 0.708851u^{80} + \cdots + 267.957u + 70.7972 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.557208u^{81} + 1.61916u^{80} + \cdots - 644.455u - 351.850$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$(u^{41} - 7u^{40} + \cdots - 13u + 1)^2$
c_2	$(u^{41} - 8u^{40} + \cdots + 2u - 1)^2$
c_3, c_7, c_{10} c_{11}	$u^{82} + 4u^{81} + \cdots + 1581u + 583$
c_4	$(u^{41} + 11u^{40} + \cdots + 92u + 11)^2$
c_5, c_9	$u^{82} - 5u^{81} + \cdots + 61u + 11$
c_6, c_8	$u^{82} + u^{81} + \cdots - 5311u + 961$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$(y^{41}+11y^{40}+\cdots+9y-1)^2$
c_2	$(y^{41}-8y^{40}+\cdots+30y-1)^2$
c_3, c_7, c_{10} c_{11}	$y^{82}+58y^{81}+\cdots+8444515y+339889$
c_4	$(y^{41}+13y^{40}+\cdots-1898y-121)^2$
c_5, c_9	$y^{82}+13y^{81}+\cdots+6949y+121$
c_6, c_8	$y^{82}-31y^{81}+\cdots-8782989y+923521$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.201433 + 0.974457I$ $a = -0.24847 - 2.21630I$ $b = -0.50859 + 1.75201I$	$2.07268 + 5.10749I$	0
$u = -0.201433 - 0.974457I$ $a = -0.24847 + 2.21630I$ $b = -0.50859 - 1.75201I$	$2.07268 - 5.10749I$	0
$u = -0.766022 + 0.674504I$ $a = 0.802065 + 0.258031I$ $b = 0.411623 - 1.052910I$	$0.21627 + 5.92950I$	0
$u = -0.766022 - 0.674504I$ $a = 0.802065 - 0.258031I$ $b = 0.411623 + 1.052910I$	$0.21627 - 5.92950I$	0
$u = 0.046473 + 1.022060I$ $a = 0.0453885 - 0.0654803I$ $b = -0.908235 + 0.579105I$	$-0.195730 - 0.062095I$	0
$u = 0.046473 - 1.022060I$ $a = 0.0453885 + 0.0654803I$ $b = -0.908235 - 0.579105I$	$-0.195730 + 0.062095I$	0
$u = 0.481687 + 0.914453I$ $a = -0.952194 - 0.769085I$ $b = 0.104564 - 0.731487I$	$-0.53309 - 6.66067I$	0
$u = 0.481687 - 0.914453I$ $a = -0.952194 + 0.769085I$ $b = 0.104564 + 0.731487I$	$-0.53309 + 6.66067I$	0
$u = -0.084502 + 0.953123I$ $a = 0.27716 + 3.12610I$ $b = -0.084502 - 0.953123I$	-1.00058	0
$u = -0.084502 - 0.953123I$ $a = 0.27716 - 3.12610I$ $b = -0.084502 + 0.953123I$	-1.00058	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.908053 + 0.267502I$ $a = 0.122614 - 0.116976I$ $b = -0.436052 + 1.232410I$	$0.05211 + 4.45406I$	0
$u = 0.908053 - 0.267502I$ $a = 0.122614 + 0.116976I$ $b = -0.436052 - 1.232410I$	$0.05211 - 4.45406I$	0
$u = 0.356623 + 0.993352I$ $a = 0.318656 + 0.614201I$ $b = -1.239790 - 0.228596I$	$-1.92162 - 3.53381I$	0
$u = 0.356623 - 0.993352I$ $a = 0.318656 - 0.614201I$ $b = -1.239790 + 0.228596I$	$-1.92162 + 3.53381I$	0
$u = -0.908235 + 0.579105I$ $a = -0.0324041 - 0.0683877I$ $b = 0.046473 + 1.022060I$	$-0.195730 - 0.062095I$	0
$u = -0.908235 - 0.579105I$ $a = -0.0324041 + 0.0683877I$ $b = 0.046473 - 1.022060I$	$-0.195730 + 0.062095I$	0
$u = 0.068284 + 1.081370I$ $a = -0.96185 + 2.05879I$ $b = -0.42203 - 1.39285I$	$5.03352 - 3.32205I$	0
$u = 0.068284 - 1.081370I$ $a = -0.96185 - 2.05879I$ $b = -0.42203 + 1.39285I$	$5.03352 + 3.32205I$	0
$u = -0.333019 + 1.053950I$ $a = 0.318558 + 0.572725I$ $b = -0.818658 - 0.168076I$	$0.116913 + 1.387900I$	0
$u = -0.333019 - 1.053950I$ $a = 0.318558 - 0.572725I$ $b = -0.818658 + 0.168076I$	$0.116913 - 1.387900I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.044484 + 1.105450I$ $a = -0.10256 + 2.32484I$ $b = 0.46839 - 1.96413I$	$3.54374 - 4.65960I$	0
$u = 0.044484 - 1.105450I$ $a = -0.10256 - 2.32484I$ $b = 0.46839 + 1.96413I$	$3.54374 + 4.65960I$	0
$u = 0.133627 + 1.121670I$ $a = -0.10313 + 2.45385I$ $b = -0.49419 - 1.57359I$	$2.42232 - 4.46231I$	0
$u = 0.133627 - 1.121670I$ $a = -0.10313 - 2.45385I$ $b = -0.49419 + 1.57359I$	$2.42232 + 4.46231I$	0
$u = 0.411623 + 1.052910I$ $a = -0.536788 + 0.538970I$ $b = -0.766022 - 0.674504I$	$0.21627 - 5.92950I$	0
$u = 0.411623 - 1.052910I$ $a = -0.536788 - 0.538970I$ $b = -0.766022 + 0.674504I$	$0.21627 + 5.92950I$	0
$u = -1.124920 + 0.275824I$ $a = -0.110405 - 0.794266I$ $b = -0.461170 + 1.076770I$	$-1.45360 + 3.78207I$	0
$u = -1.124920 - 0.275824I$ $a = -0.110405 + 0.794266I$ $b = -0.461170 - 1.076770I$	$-1.45360 - 3.78207I$	0
$u = -0.818658 + 0.168076I$ $a = 0.796957 + 0.340759I$ $b = -0.333019 - 1.053950I$	$0.116913 - 1.387900I$	$-6.84622 + 0.I$
$u = -0.818658 - 0.168076I$ $a = 0.796957 - 0.340759I$ $b = -0.333019 + 1.053950I$	$0.116913 + 1.387900I$	$-6.84622 + 0.I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.538479 + 0.638550I$ $a = 1.065560 - 0.578549I$ $b = -0.039429 + 1.208320I$	$3.80604 + 1.84265I$	$2.21456 - 1.42669I$
$u = 0.538479 - 0.638550I$ $a = 1.065560 + 0.578549I$ $b = -0.039429 - 1.208320I$	$3.80604 - 1.84265I$	$2.21456 + 1.42669I$
$u = -0.461170 + 1.076770I$ $a = 0.561893 - 0.559451I$ $b = -1.124920 + 0.275824I$	$-1.45360 + 3.78207I$	0
$u = -0.461170 - 1.076770I$ $a = 0.561893 + 0.559451I$ $b = -1.124920 - 0.275824I$	$-1.45360 - 3.78207I$	0
$u = -0.807717 + 0.141453I$ $a = 0.769334 + 1.182630I$ $b = 0.510395 - 0.521903I$	$-3.37975 + 0.08879I$	$-21.5224 - 1.1280I$
$u = -0.807717 - 0.141453I$ $a = 0.769334 - 1.182630I$ $b = 0.510395 + 0.521903I$	$-3.37975 - 0.08879I$	$-21.5224 + 1.1280I$
$u = -0.569473 + 1.050610I$ $a = 0.135587 - 0.282589I$ $b = 0.193727 + 0.290248I$	$0.05619 + 2.96133I$	0
$u = -0.569473 - 1.050610I$ $a = 0.135587 + 0.282589I$ $b = 0.193727 - 0.290248I$	$0.05619 - 2.96133I$	0
$u = -0.039429 + 1.208320I$ $a = 0.279515 - 0.789725I$ $b = 0.538479 + 0.638550I$	$3.80604 + 1.84265I$	0
$u = -0.039429 - 1.208320I$ $a = 0.279515 + 0.789725I$ $b = 0.538479 - 0.638550I$	$3.80604 - 1.84265I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.000352 + 1.222750I$ $a = -0.431347 - 0.869500I$ $b = 1.142370 + 0.747319I$	$3.71714 + 2.02101I$	0
$u = -0.000352 - 1.222750I$ $a = -0.431347 + 0.869500I$ $b = 1.142370 - 0.747319I$	$3.71714 - 2.02101I$	0
$u = 0.543339 + 0.521380I$ $a = 0.469132 + 0.978730I$ $b = -0.290957 + 0.592426I$	$-1.39039 + 1.97007I$	$-9.76462 - 4.48787I$
$u = 0.543339 - 0.521380I$ $a = 0.469132 - 0.978730I$ $b = -0.290957 - 0.592426I$	$-1.39039 - 1.97007I$	$-9.76462 + 4.48787I$
$u = -1.239790 + 0.228596I$ $a = 0.310254 + 0.489196I$ $b = 0.356623 - 0.993352I$	$-1.92162 + 3.53381I$	0
$u = -1.239790 - 0.228596I$ $a = 0.310254 - 0.489196I$ $b = 0.356623 + 0.993352I$	$-1.92162 - 3.53381I$	0
$u = 0.104564 + 0.731487I$ $a = 1.70968 - 0.09004I$ $b = 0.481687 - 0.914453I$	$-0.53309 + 6.66067I$	$-5.50818 - 4.99627I$
$u = 0.104564 - 0.731487I$ $a = 1.70968 + 0.09004I$ $b = 0.481687 + 0.914453I$	$-0.53309 - 6.66067I$	$-5.50818 + 4.99627I$
$u = 0.510395 + 0.521903I$ $a = 0.07356 + 1.58312I$ $b = -0.807717 - 0.141453I$	$-3.37975 - 0.08879I$	$-21.5224 + 1.1280I$
$u = 0.510395 - 0.521903I$ $a = 0.07356 - 1.58312I$ $b = -0.807717 + 0.141453I$	$-3.37975 + 0.08879I$	$-21.5224 - 1.1280I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.277090 + 0.069235I$ $a = 0.128263 - 0.568984I$ $b = 0.442168 + 1.200420I$	$-1.61991 - 12.41910I$	0
$u = 1.277090 - 0.069235I$ $a = 0.128263 + 0.568984I$ $b = 0.442168 - 1.200420I$	$-1.61991 + 12.41910I$	0
$u = 0.442168 + 1.200420I$ $a = -0.471592 - 0.342980I$ $b = 1.277090 + 0.069235I$	$-1.61991 - 12.41910I$	0
$u = 0.442168 - 1.200420I$ $a = -0.471592 + 0.342980I$ $b = 1.277090 - 0.069235I$	$-1.61991 + 12.41910I$	0
$u = -0.436052 + 1.232410I$ $a = -0.0893396 - 0.0841235I$ $b = 0.908053 + 0.267502I$	$0.05211 + 4.45406I$	0
$u = -0.436052 - 1.232410I$ $a = -0.0893396 + 0.0841235I$ $b = 0.908053 - 0.267502I$	$0.05211 - 4.45406I$	0
$u = -0.290957 + 0.592426I$ $a = 1.226410 - 0.171231I$ $b = 0.543339 + 0.521380I$	$-1.39039 + 1.97007I$	$-9.76462 - 4.48787I$
$u = -0.290957 - 0.592426I$ $a = 1.226410 + 0.171231I$ $b = 0.543339 - 0.521380I$	$-1.39039 - 1.97007I$	$-9.76462 + 4.48787I$
$u = 1.142370 + 0.747319I$ $a = 0.440460 - 0.749568I$ $b = -0.000352 + 1.222750I$	$3.71714 + 2.02101I$	0
$u = 1.142370 - 0.747319I$ $a = 0.440460 + 0.749568I$ $b = -0.000352 - 1.222750I$	$3.71714 - 2.02101I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.156685+1.358810I$ $a=-0.101736-0.810141I$ $b=-0.402062+0.251568I$	$1.45241+4.98872I$	0
$u=-0.156685-1.358810I$ $a=-0.101736+0.810141I$ $b=-0.402062-0.251568I$	$1.45241-4.98872I$	0
$u=0.542295+1.256440I$ $a=-0.73459+1.65323I$ $b=-0.56332-1.44907I$	$3.20535-9.84080I$	0
$u=0.542295-1.256440I$ $a=-0.73459-1.65323I$ $b=-0.56332+1.44907I$	$3.20535+9.84080I$	0
$u=-0.27459+1.42022I$ $a=0.24594+1.64727I$ $b=0.68951-1.38477I$	$6.68388+9.32368I$	0
$u=-0.27459-1.42022I$ $a=0.24594-1.64727I$ $b=0.68951+1.38477I$	$6.68388-9.32368I$	0
$u=-0.42203+1.39285I$ $a=1.04819+1.32794I$ $b=0.068284-1.081370I$	$5.03352+3.32205I$	0
$u=-0.42203-1.39285I$ $a=1.04819-1.32794I$ $b=0.068284+1.081370I$	$5.03352-3.32205I$	0
$u=-0.402062+0.251568I$ $a=-2.00877-1.22876I$ $b=-0.156685+1.358810I$	$1.45241+4.98872I$	$-4.83358-8.14945I$
$u=-0.402062-0.251568I$ $a=-2.00877+1.22876I$ $b=-0.156685-1.358810I$	$1.45241-4.98872I$	$-4.83358+8.14945I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.68951 + 1.38477I$ $a = -0.63393 + 1.42256I$ $b = -0.27459 - 1.42022I$	$6.68388 - 9.32368I$	0
$u = 0.68951 - 1.38477I$ $a = -0.63393 - 1.42256I$ $b = -0.27459 + 1.42022I$	$6.68388 + 9.32368I$	0
$u = -0.56332 + 1.44907I$ $a = 0.59277 + 1.47793I$ $b = 0.542295 - 1.256440I$	$3.20535 + 9.84080I$	0
$u = -0.56332 - 1.44907I$ $a = 0.59277 - 1.47793I$ $b = 0.542295 + 1.256440I$	$3.20535 - 9.84080I$	0
$u = -0.49419 + 1.57359I$ $a = 0.37975 + 1.63862I$ $b = 0.133627 - 1.121670I$	$2.42232 + 4.46231I$	0
$u = -0.49419 - 1.57359I$ $a = 0.37975 - 1.63862I$ $b = 0.133627 + 1.121670I$	$2.42232 - 4.46231I$	0
$u = 0.193727 + 0.290248I$ $a = 1.072570 - 0.040966I$ $b = -0.569473 + 1.050610I$	$0.05619 + 2.96133I$	$-4.67276 + 2.55942I$
$u = 0.193727 - 0.290248I$ $a = 1.072570 + 0.040966I$ $b = -0.569473 - 1.050610I$	$0.05619 - 2.96133I$	$-4.67276 - 2.55942I$
$u = -0.50859 + 1.75201I$ $a = -0.230119 - 1.194450I$ $b = -0.201433 + 0.974457I$	$2.07268 + 5.10749I$	0
$u = -0.50859 - 1.75201I$ $a = -0.230119 + 1.194450I$ $b = -0.201433 - 0.974457I$	$2.07268 - 5.10749I$	0

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.46839 + 1.96413I$ $a = -0.290971 + 1.241400I$ $b = 0.044484 - 1.105450I$	$3.54374 + 4.65960I$	0
$u = 0.46839 - 1.96413I$ $a = -0.290971 - 1.241400I$ $b = 0.044484 + 1.105450I$	$3.54374 - 4.65960I$	0

III. $\boldsymbol{I_3^u = \langle b + u,\ -2u^7 + u^6 - 6u^5 + u^4 - 6u^3 + a,\ u^8 - u^7 + \cdots - 2u + 1\rangle}$

(i) Arc colorings

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

$$a_{11} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

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

$$a_8 = \begin{pmatrix} 2u^7 - u^6 + 6u^5 - u^4 + 6u^3 \\ -u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 2u^7 - u^6 + 6u^5 - u^4 + 6u^3 - u \\ -u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -2u^7 + 3u^6 - 7u^5 + 7u^4 - 6u^3 + 5u^2 + 2u - 3 \\ -u^7 + u^6 - 3u^5 + 2u^4 - 3u^3 + u^2 + u - 1 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 2u^7 - u^6 + 6u^5 + 5u^3 + 2u^2 - 2u + 1 \\ u^6 - u^5 + 3u^4 - 2u^3 + 3u^2 - 2u + 1 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} u^7 - 2u^6 + 5u^5 - 6u^4 + 8u^3 - 6u^2 + 4u - 1 \\ -u^2 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} u^7 + u^6 + 6u^4 - 5u^3 + 9u^2 - 8u + 4 \\ u^4 - u^3 + 3u^2 - 2u + 1 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -2u^7 + u^6 - 6u^5 + u^4 - 5u^3 - u^2 + 3u - 2 \\ -u^7 + u^6 - 3u^5 + u^4 - 2u^3 - u^2 + u - 1 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -2u^7 + u^6 - 6u^5 + u^4 - 5u^3 - u^2 + 3u - 2 \\ -u^7 + u^6 - 3u^5 + u^4 - 2u^3 - u^2 + u - 1 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 6u^7 + 2u^6 + 13u^5 + 14u^4 + 6u^3 + 18u^2 - 11u - 3$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^8 - 2u^7 + 4u^6 + 2u^5 + 6u^4 - 10u^3 + 6u^2 - 3u + 1$
c_2	$u^8 - 2u^7 + u^6 + 2u^5 - 3u^3 + u^2 + 3u + 1$
c_3, c_{10}	$u^8 + u^7 + 4u^6 + 3u^5 + 6u^4 + 4u^3 + 3u^2 + 2u + 1$
c_4	$u^8 - u^7 - u^6 + 18u^4 - 43u^3 + 40u^2 - 18u + 5$
c_5, c_9	$u^8 + 2u^7 + 2u^6 + u^5 + 4u^4 + 4u^3 + u^2 + u + 1$
c_6, c_8	$u^8 + u^7 - 2u^6 - u^5 + 5u^4 + 2u^3 - 5u^2 + 4$
c_7, c_{11}	$u^8 - u^7 + 4u^6 - 3u^5 + 6u^4 - 4u^3 + 3u^2 - 2u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^8+4y^7+36y^6+16y^5+114y^4-8y^3-12y^2+3y+1$
c_2	$y^8-2y^7+9y^6-14y^5+28y^4-19y^3+19y^2-7y+1$
c_3, c_7, c_{10} c_{11}	$y^8+7y^7+22y^6+37y^5+34y^4+16y^3+5y^2+2y+1$
c_4	$y^8-3y^7+37y^6-42y^5+218y^4-419y^3+232y^2+76y+25$
c_5, c_9	$y^8+8y^6+y^5+10y^4-6y^3+y^2+y+1$
c_6, c_8	$y^8-5y^7+16y^6-35y^5+57y^4-70y^3+65y^2-40y+16$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.269479+0.786257I$ $a=\ \ 0.66386-1.86952I$ $b=\ \ 0.269479-0.786257I$	$-0.83890+7.80261I$	$-8.9851-11.5999I$
$u=-0.269479-0.786257I$ $a=\ \ 0.66386+1.86952I$ $b=\ \ 0.269479+0.786257I$	$-0.83890-7.80261I$	$-8.9851+11.5999I$
$u=-0.277017+1.255050I$ $a=\ \ 0.108092+1.358300I$ $b=\ \ 0.277017-1.255050I$	$2.76768-3.32852I$	$-2.54114+3.52732I$
$u=-0.277017-1.255050I$ $a=\ \ 0.108092-1.358300I$ $b=\ \ 0.277017+1.255050I$	$2.76768+3.32852I$	$-2.54114-3.52732I$
$u=\ \ 0.540306+0.341888I$ $a=-0.68710+1.58291I$ $b=-0.540306-0.341888I$	$-2.72625-0.35304I$	$-9.09708+6.47245I$
$u=\ \ 0.540306-0.341888I$ $a=-0.68710-1.58291I$ $b=-0.540306+0.341888I$	$-2.72625+0.35304I$	$-9.09708-6.47245I$
$u=\ \ 0.50619+1.37378I$ $a=-0.58486+1.70906I$ $b=-0.50619-1.37378I$	$4.08734-8.79857I$	$-1.87665+4.90674I$
$u=\ \ 0.50619-1.37378I$ $a=-0.58486-1.70906I$ $b=-0.50619+1.37378I$	$4.08734+8.79857I$	$-1.87665-4.90674I$

IV.

$\boldsymbol{I^u_4 = \langle 12u^9 - 27u^8 + \cdots + b - 16,\ -u^9 + 3u^8 + \cdots + a + 6,\ u^{10} - 3u^9 + \cdots - 5u + 1\rangle}$

(i) Arc colorings

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

$$a_{11} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

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

$$a_8 = \begin{pmatrix} u^9 - 3u^8 + 11u^7 - 21u^6 + 37u^5 - 45u^4 + 46u^3 - 34u^2 + 18u - 6 \\ -12u^9 + 27u^8 + \cdots - 59u + 16 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -11u^9 + 24u^8 + \cdots - 41u + 10 \\ -12u^9 + 27u^8 + \cdots - 59u + 16 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -15u^9 + 33u^8 + \cdots - 57u + 14 \\ -12u^9 + 27u^8 + \cdots - 54u + 15 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -9u^9 + 19u^8 + \cdots - 26u + 6 \\ -9u^9 + 20u^8 + \cdots - 41u + 11 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -3u^9 + 5u^8 - 21u^7 + 25u^6 - 42u^5 + 36u^4 - 34u^3 + 23u^2 - 8u + 4 \\ -12u^9 + 28u^8 + \cdots - 61u + 17 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 8u^9 - 18u^8 + \cdots + 37u - 10 \\ 17u^9 - 38u^8 + \cdots + 82u - 23 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -13u^9 + 31u^8 + \cdots - 74u + 20 \\ -22u^9 + 51u^8 + \cdots - 117u + 32 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -13u^9 + 31u^8 + \cdots - 74u + 20 \\ -22u^9 + 51u^8 + \cdots - 117u + 32 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes

$= 54u^9 - 118u^8 + 444u^7 - 672u^6 + 1090u^5 - 1110u^4 + 1006u^3 - 674u^2 + 274u - 89$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$(u^5 - u^3 + u^2 + u - 1)^2$
c_2	$(u^5 + 2u^4 - 3u^2 + 1)^2$
c_3, c_{10}	$u^{10} + 3u^9 + \cdots + 5u + 1$
c_4	$(u^5 - u^4 - u^3 + u^2 - 1)^2$
c_5, c_9	$u^{10} - 2u^9 + 3u^8 - 3u^7 + 5u^6 - 6u^5 + 3u^4 - 3u^3 + 3u^2 - u + 1$
c_6, c_8	$u^{10} - 2u^9 - 3u^8 + 4u^7 + 7u^6 - u^5 - 7u^4 - 4u^3 + 2u^2 + 3u + 1$
c_7, c_{11}	$u^{10} - 3u^9 + \cdots - 5u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$(y^5 - 2y^4 + 3y^3 - 3y^2 + 3y - 1)^2$
c_2	$(y^5 - 4y^4 + 12y^3 - 13y^2 + 6y - 1)^2$
c_3, c_7, c_{10} c_{11}	$y^{10} + 11y^9 + 46y^8 + 91y^7 + 84y^6 + 8y^5 - 46y^4 - 24y^3 + 4y^2 + 3y + 1$
c_4	$(y^5 - 3y^4 + 3y^3 - 3y^2 + 2y - 1)^2$
c_5, c_9	$y^{10} + 2y^9 + 7y^8 + 3y^7 + y^6 - 8y^5 + 3y^4 + 7y^3 + 9y^2 + 5y + 1$
c_6, c_8	$y^{10} - 10y^9 + \cdots - 5y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_4^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.109909 + 1.074360I$ $a = -0.19447 - 2.65794I$ $b = -0.18082 + 1.92265I$	$3.01018 + 5.17259I$	$0.22749 - 12.15389I$
$u = -0.109909 - 1.074360I$ $a = -0.19447 + 2.65794I$ $b = -0.18082 - 1.92265I$	$3.01018 - 5.17259I$	$0.22749 + 12.15389I$
$u = 0.449269 + 1.114270I$ $a = -0.015790 + 0.270852I$ $b = -0.719851 - 0.020388I$	$-0.29233 - 3.70382I$	$-8.25691 + 5.45417I$
$u = 0.449269 - 1.114270I$ $a = -0.015790 - 0.270852I$ $b = -0.719851 + 0.020388I$	$-0.29233 + 3.70382I$	$-8.25691 - 5.45417I$
$u = 0.719851 + 0.020388I$ $a = -0.424674 + 0.156629I$ $b = -0.449269 - 1.114270I$	$-0.29233 - 3.70382I$	$-8.25691 + 5.45417I$
$u = 0.719851 - 0.020388I$ $a = -0.424674 - 0.156629I$ $b = -0.449269 + 1.114270I$	$-0.29233 + 3.70382I$	$-8.25691 - 5.45417I$
$u = 0.259964 + 0.489435I$ $a = -0.96167 + 1.81054I$ $b = -0.259964 + 0.489435I$	-2.14584	$-12.94116 + 0.I$
$u = 0.259964 - 0.489435I$ $a = -0.96167 - 1.81054I$ $b = -0.259964 - 0.489435I$	-2.14584	$-12.94116 + 0.I$
$u = 0.18082 + 1.92265I$ $a = 0.09660 - 1.48727I$ $b = 0.109909 + 1.074360I$	$3.01018 - 5.17259I$	$0.22749 + 12.15389I$
$u = 0.18082 - 1.92265I$ $a = 0.09660 + 1.48727I$ $b = 0.109909 - 1.074360I$	$3.01018 + 5.17259I$	$0.22749 - 12.15389I$

V. $I_5^u = \langle b+u,\ a-u+1,\ u^2-u+1 \rangle$

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 8u - 10$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_4, c_5 c_7, c_9, c_{11}	$u^2 - u + 1$
c_2	$(u-1)^2$
c_3, c_{10}	$u^2 + u + 1$
c_6, c_8	u^2

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_3, c_4 c_5, c_7, c_9 c_{10}, c_{11}	$y^2 + y + 1$
c_2	$(y-1)^2$
c_6, c_8	y^2

(vi) Complex Volumes and Cusp Shapes

Solutions to I_5^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.500000 + 0.866025I$ $a = -0.500000 + 0.866025I$ $b = -0.500000 - 0.866025I$	$-\,4.05977I$	$-6.00000 + 6.92820I$
$u = \quad 0.500000 - 0.866025I$ $a = -0.500000 - 0.866025I$ $b = -0.500000 + 0.866025I$	$4.05977I$	$-6.00000 - 6.92820I$

VI. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^2-u+1)(u^5-u^3+u^2+u-1)^2$ $\cdot(u^8-2u^7+4u^6+2u^5+6u^4-10u^3+6u^2-3u+1)$ $\cdot(u^{23}+22u^{22}+\cdots+7424u+512)(u^{41}-7u^{40}+\cdots-13u+1)^2$
c_2	$((u-1)^2)(u^5+2u^4-3u^2+1)^2(u^8-2u^7+\cdots+3u+1)$ $\cdot(u^{23}+19u^{22}+\cdots-96u-16)(u^{41}-8u^{40}+\cdots+2u-1)^2$
c_3,c_{10}	$(u^2+u+1)(u^8+u^7+4u^6+3u^5+6u^4+4u^3+3u^2+2u+1)$ $\cdot(u^{10}+3u^9+\cdots+5u+1)(u^{23}+10u^{21}+\cdots+6u+1)$ $\cdot(u^{82}+4u^{81}+\cdots+1581u+583)$
c_4	$(u^2-u+1)(u^5-u^4-u^3+u^2-1)^2$ $\cdot(u^8-u^7-u^6+18u^4-43u^3+40u^2-18u+5)$ $\cdot(u^{23}-19u^{22}+\cdots-960u+256)(u^{41}+11u^{40}+\cdots+92u+11)^2$
c_5,c_9	$(u^2-u+1)(u^8+2u^7+2u^6+u^5+4u^4+4u^3+u^2+u+1)$ $\cdot(u^{10}-2u^9+3u^8-3u^7+5u^6-6u^5+3u^4-3u^3+3u^2-u+1)$ $\cdot(u^{23}-u^{22}+\cdots-u+1)(u^{82}-5u^{81}+\cdots+61u+11)$
c_6,c_8	$u^2(u^8+u^7-2u^6-u^5+5u^4+2u^3-5u^2+4)$ $\cdot(u^{10}-2u^9-3u^8+4u^7+7u^6-u^5-7u^4-4u^3+2u^2+3u+1)$ $\cdot(u^{23}-u^{22}+\cdots+4u+4)(u^{82}+u^{81}+\cdots-5311u+961)$
c_7,c_{11}	$(u^2-u+1)(u^8-u^7+4u^6-3u^5+6u^4-4u^3+3u^2-2u+1)$ $\cdot(u^{10}-3u^9+\cdots-5u+1)(u^{23}+10u^{21}+\cdots+6u+1)$ $\cdot(u^{82}+4u^{81}+\cdots+1581u+583)$

VII. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^2+y+1)(y^5-2y^4+3y^3-3y^2+3y-1)^2$ $\cdot(y^8+4y^7+36y^6+16y^5+114y^4-8y^3-12y^2+3y+1)$ $\cdot(y^{23}-2y^{22}+\cdots+11599872y-262144)$ $\cdot(y^{41}+11y^{40}+\cdots+9y-1)^2$
c_2	$(y-1)^2(y^5-4y^4+12y^3-13y^2+6y-1)^2$ $\cdot(y^8-2y^7+9y^6-14y^5+28y^4-19y^3+19y^2-7y+1)$ $\cdot(y^{23}-5y^{22}+\cdots-6016y-256)(y^{41}-8y^{40}+\cdots+30y-1)^2$
c_3, c_7, c_{10} c_{11}	$(y^2+y+1)(y^8+7y^7+22y^6+37y^5+34y^4+16y^3+5y^2+2y+1)$ $\cdot(y^{10}+11y^9+46y^8+91y^7+84y^6+8y^5-46y^4-24y^3+4y^2+3y+1)$ $\cdot(y^{23}+20y^{22}+\cdots+20y-1)$ $\cdot(y^{82}+58y^{81}+\cdots+8444515y+339889)$
c_4	$(y^2+y+1)(y^5-3y^4+3y^3-3y^2+2y-1)^2$ $\cdot(y^8-3y^7+37y^6-42y^5+218y^4-419y^3+232y^2+76y+25)$ $\cdot(y^{23}-7y^{22}+\cdots+1011712y-65536)$ $\cdot(y^{41}+13y^{40}+\cdots-1898y-121)^2$
c_5, c_9	$(y^2+y+1)(y^8+8y^6+y^5+10y^4-6y^3+y^2+y+1)$ $\cdot(y^{10}+2y^9+7y^8+3y^7+y^6-8y^5+3y^4+7y^3+9y^2+5y+1)$ $\cdot(y^{23}-3y^{22}+\cdots-3y-1)(y^{82}+13y^{81}+\cdots+6949y+121)$
c_6, c_8	$y^2(y^8-5y^7+16y^6-35y^5+57y^4-70y^3+65y^2-40y+16)$ $\cdot(y^{10}-10y^9+\cdots-5y+1)(y^{23}-9y^{22}+\cdots+80y-16)$ $\cdot(y^{82}-31y^{81}+\cdots-8782989y+923521)$