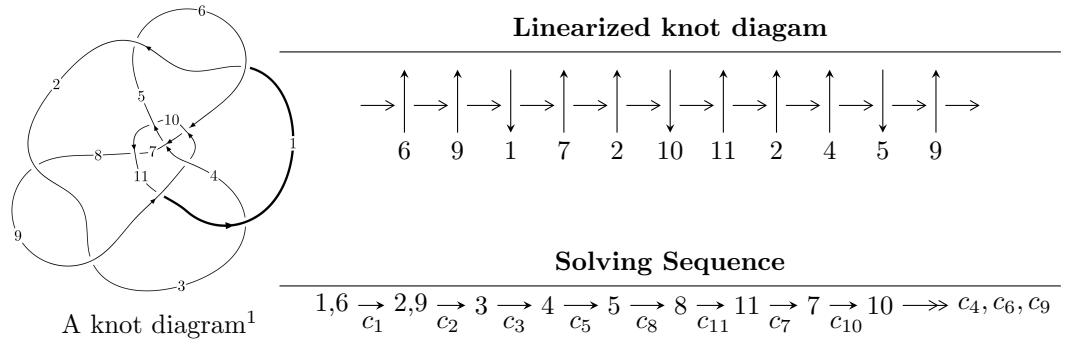


$11n_{176}$ ($K11n_{176}$)



Ideals for irreducible components² of X_{par}

$$\begin{aligned}
 I_1^u &= \langle 9.28358 \times 10^{73} u^{46} + 4.54756 \times 10^{74} u^{45} + \dots + 1.24850 \times 10^{77} b + 1.15944 \times 10^{77}, \\
 &\quad 2.16945 \times 10^{75} u^{46} - 2.78753 \times 10^{76} u^{45} + \dots + 3.74550 \times 10^{77} a - 4.53039 \times 10^{78}, u^{47} - u^{46} + \dots - 21u + 6 \rangle \\
 I_2^u &= \langle 411u^{15} + 80u^{14} + \dots + 327b - 544, 1184u^{15} + 48u^{14} + \dots + 327a + 175, \\
 &\quad u^{16} + 4u^{14} + u^{13} + 3u^{12} - 10u^{10} - 9u^9 - 30u^8 - 19u^7 - 33u^6 - 18u^5 - 21u^4 - 10u^3 - 7u^2 - 2u - 1 \rangle
 \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 63 representations.

¹The image of knot diagram is generated by the software “**Draw programme**” developed by Andrew Bartholomew(<http://www.layer8.co.uk/math/draw/index.htm#Running-draw>), where we modified some parts for our purpose(<https://github.com/CATsTAILs/LinksPainter>).

²All coefficients of polynomials are rational numbers. But the coefficients are sometimes approximated in decimal forms when there is not enough margin.

I.

$$I_1^u = \langle 9.28 \times 10^{73} u^{46} + 4.55 \times 10^{74} u^{45} + \dots + 1.25 \times 10^{77} b + 1.16 \times 10^{77}, 2.17 \times 10^{75} u^{46} - 2.79 \times 10^{76} u^{45} + \dots + 3.75 \times 10^{77} a - 4.53 \times 10^{78}, u^{47} - u^{46} + \dots - 21u + 6 \rangle$$

(i) **Arc colorings**

$$a_1 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.00579214u^{46} + 0.0744235u^{45} + \dots + 7.90890u + 12.0956 \\ -0.000743579u^{46} - 0.00364242u^{45} + \dots + 0.922897u - 0.928667 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -0.0143049u^{46} + 0.0978976u^{45} + \dots + 4.71215u + 13.6102 \\ 0.0228505u^{46} - 0.0369206u^{45} + \dots + 1.75270u - 0.870753 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -0.0371555u^{46} + 0.134818u^{45} + \dots + 2.95945u + 14.4810 \\ 0.0228505u^{46} - 0.0369206u^{45} + \dots + 1.75270u - 0.870753 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -u \\ u^3 + u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.0170297u^{46} + 0.0889078u^{45} + \dots + 5.50999u + 13.4360 \\ -0.00951166u^{46} + 0.00323251u^{45} + \dots + 0.787290u - 0.909186 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.0661464u^{46} + 0.0255355u^{45} + \dots - 15.5094u - 5.85559 \\ -0.00201782u^{46} + 0.0234904u^{45} + \dots - 1.29675u + 0.627088 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.235637u^{46} + 0.255083u^{45} + \dots - 29.2766u + 8.54904 \\ -0.0237208u^{46} + 0.0372482u^{45} + \dots + 0.0651824u - 0.264345 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.0864183u^{46} + 0.0400257u^{45} + \dots - 15.5328u - 5.69635 \\ 0.00595648u^{46} + 0.0186824u^{45} + \dots - 1.27359u + 0.433152 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.0864183u^{46} + 0.0400257u^{45} + \dots - 15.5328u - 5.69635 \\ 0.00595648u^{46} + 0.0186824u^{45} + \dots - 1.27359u + 0.433152 \end{pmatrix}$$

(ii) **Obstruction class = -1**

(iii) **Cusp Shapes** = $-0.581599u^{46} + 0.705867u^{45} + \dots - 67.0569u + 21.0318$

(iv) u-Polynomials at the component

| Crossings | u-Polynomials at each crossing |
|------------|---------------------------------------------|
| c_1, c_5 | $u^{47} - u^{46} + \cdots - 21u + 6$ |
| c_2, c_8 | $u^{47} - u^{46} + \cdots - 17271u + 4993$ |
| c_3 | $u^{47} - 4u^{46} + \cdots + 503u - 103$ |
| c_4 | $u^{47} + 3u^{46} + \cdots + 3u + 1$ |
| c_6 | $u^{47} + 5u^{46} + \cdots + 25u - 25$ |
| c_7 | $u^{47} + u^{46} + \cdots - 9496u + 1136$ |
| c_9 | $u^{47} + 2u^{46} + \cdots - 115u - 38$ |
| c_{10} | $u^{47} - 9u^{45} + \cdots + 1771u - 137$ |
| c_{11} | $u^{47} + 26u^{45} + \cdots - 7818u + 1097$ |

(v) Riley Polynomials at the component

| Crossings | Riley Polynomials at each crossing |
|------------|------------------------------------------------------|
| c_1, c_5 | $y^{47} + 35y^{46} + \cdots - 1923y - 36$ |
| c_2, c_8 | $y^{47} + 67y^{46} + \cdots - 225548161y - 24930049$ |
| c_3 | $y^{47} - 58y^{46} + \cdots + 257953y - 10609$ |
| c_4 | $y^{47} - 7y^{46} + \cdots + 9y - 1$ |
| c_6 | $y^{47} - y^{46} + \cdots + 17375y - 625$ |
| c_7 | $y^{47} + 33y^{46} + \cdots + 121024y - 1290496$ |
| c_9 | $y^{47} - 22y^{46} + \cdots + 9957y - 1444$ |
| c_{10} | $y^{47} - 18y^{46} + \cdots + 2612553y - 18769$ |
| c_{11} | $y^{47} + 52y^{46} + \cdots + 1652754y - 1203409$ |

(vi) Complex Volumes and Cusp Shapes

| Solutions to I_1^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|-----------------------------|---------------------------------------|----------------------|
| $u = -0.773512 + 0.492443I$ | | |
| $a = 0.425302 - 0.252935I$ | $1.18695 + 2.20702I$ | $6.40904 - 2.67371I$ |
| $b = 0.018902 + 0.913672I$ | | |
| $u = -0.773512 - 0.492443I$ | | |
| $a = 0.425302 + 0.252935I$ | $1.18695 - 2.20702I$ | $6.40904 + 2.67371I$ |
| $b = 0.018902 - 0.913672I$ | | |
| $u = 0.532721 + 0.951033I$ | | |
| $a = 0.114543 + 0.789067I$ | $-0.32563 + 3.32812I$ | $4.47407 - 5.56859I$ |
| $b = 0.205803 + 0.637663I$ | | |
| $u = 0.532721 - 0.951033I$ | | |
| $a = 0.114543 - 0.789067I$ | $-0.32563 - 3.32812I$ | $4.47407 + 5.56859I$ |
| $b = 0.205803 - 0.637663I$ | | |
| $u = 0.566468 + 0.943415I$ | | |
| $a = 0.177396 + 0.352172I$ | $-0.16355 + 3.21246I$ | $2.46572 - 3.89028I$ |
| $b = 0.162886 + 0.570692I$ | | |
| $u = 0.566468 - 0.943415I$ | | |
| $a = 0.177396 - 0.352172I$ | $-0.16355 - 3.21246I$ | $2.46572 + 3.89028I$ |
| $b = 0.162886 - 0.570692I$ | | |
| $u = 0.120942 + 1.100590I$ | | |
| $a = 0.380545 - 1.251690I$ | $-0.026486 - 0.766540I$ | $4.20873 + 2.92644I$ |
| $b = 1.012370 - 0.893281I$ | | |
| $u = 0.120942 - 1.100590I$ | | |
| $a = 0.380545 + 1.251690I$ | $-0.026486 + 0.766540I$ | $4.20873 - 2.92644I$ |
| $b = 1.012370 + 0.893281I$ | | |
| $u = -1.089520 + 0.393683I$ | | |
| $a = 0.293954 + 0.011791I$ | $-6.00687 - 1.21428I$ | $0. + 1.82170I$ |
| $b = -0.37684 - 1.53640I$ | | |
| $u = -1.089520 - 0.393683I$ | | |
| $a = 0.293954 - 0.011791I$ | $-6.00687 + 1.21428I$ | $0. - 1.82170I$ |
| $b = -0.37684 + 1.53640I$ | | |

| Solutions to I_1^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|-----------------------------|---------------------------------------|----------------------|
| $u = -0.559473 + 1.085530I$ | | |
| $a = -0.723467 - 0.239741I$ | $-0.67448 - 7.25675I$ | $0. + 8.76697I$ |
| $b = 0.109730 - 0.820940I$ | | |
| $u = -0.559473 - 1.085530I$ | | |
| $a = -0.723467 + 0.239741I$ | $-0.67448 + 7.25675I$ | $0. - 8.76697I$ |
| $b = 0.109730 + 0.820940I$ | | |
| $u = -0.222144 + 1.218960I$ | | |
| $a = 0.233025 + 0.690594I$ | $-3.99416 + 0.19865I$ | 0 |
| $b = -0.662108 + 0.421221I$ | | |
| $u = -0.222144 - 1.218960I$ | | |
| $a = 0.233025 - 0.690594I$ | $-3.99416 - 0.19865I$ | 0 |
| $b = -0.662108 - 0.421221I$ | | |
| $u = -0.135940 + 1.249240I$ | | |
| $a = -0.24140 - 2.25011I$ | $-5.37560 - 5.09376I$ | $5.00000 + 5.21914I$ |
| $b = 0.46236 - 1.85158I$ | | |
| $u = -0.135940 - 1.249240I$ | | |
| $a = -0.24140 + 2.25011I$ | $-5.37560 + 5.09376I$ | $5.00000 - 5.21914I$ |
| $b = 0.46236 + 1.85158I$ | | |
| $u = 0.008414 + 1.269400I$ | | |
| $a = -0.17728 + 2.28677I$ | $-7.89928 + 0.59442I$ | 0 |
| $b = 0.34057 + 1.47157I$ | | |
| $u = 0.008414 - 1.269400I$ | | |
| $a = -0.17728 - 2.28677I$ | $-7.89928 - 0.59442I$ | 0 |
| $b = 0.34057 - 1.47157I$ | | |
| $u = 0.397415 + 0.585722I$ | | |
| $a = 0.858641 - 0.085959I$ | $0.847784 + 0.991810I$ | $7.10163 - 6.37542I$ |
| $b = 0.442468 - 0.043886I$ | | |
| $u = 0.397415 - 0.585722I$ | | |
| $a = 0.858641 + 0.085959I$ | $0.847784 - 0.991810I$ | $7.10163 + 6.37542I$ |
| $b = 0.442468 + 0.043886I$ | | |

| Solutions to I_1^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|-----------------------------|---------------------------------------|----------------------|
| $u = -0.225548 + 0.638119I$ | | |
| $a = 1.033440 + 0.803339I$ | $-5.18251 - 1.11302I$ | $0.53819 + 5.95442I$ |
| $b = 0.046181 - 0.992925I$ | | |
| $u = -0.225548 - 0.638119I$ | | |
| $a = 1.033440 - 0.803339I$ | $-5.18251 + 1.11302I$ | $0.53819 - 5.95442I$ |
| $b = 0.046181 + 0.992925I$ | | |
| $u = 0.038224 + 0.668626I$ | | |
| $a = 1.304070 - 0.196382I$ | $0.890036 + 1.096420I$ | $7.02928 - 5.72666I$ |
| $b = 0.813691 + 0.238509I$ | | |
| $u = 0.038224 - 0.668626I$ | | |
| $a = 1.304070 + 0.196382I$ | $0.890036 - 1.096420I$ | $7.02928 + 5.72666I$ |
| $b = 0.813691 - 0.238509I$ | | |
| $u = -1.36636$ | | |
| $a = -1.35558$ | 6.55372 | 22.3580 |
| $b = 1.02511$ | | |
| $u = -0.142302 + 1.399620I$ | | |
| $a = -0.437418 + 0.681680I$ | $0.04235 - 4.49004I$ | 0 |
| $b = 0.707328 + 0.658989I$ | | |
| $u = -0.142302 - 1.399620I$ | | |
| $a = -0.437418 - 0.681680I$ | $0.04235 + 4.49004I$ | 0 |
| $b = 0.707328 - 0.658989I$ | | |
| $u = -0.43399 + 1.44976I$ | | |
| $a = -0.68286 - 1.56290I$ | $-11.62380 - 6.41934I$ | 0 |
| $b = 0.05165 - 1.95982I$ | | |
| $u = -0.43399 - 1.44976I$ | | |
| $a = -0.68286 + 1.56290I$ | $-11.62380 + 6.41934I$ | 0 |
| $b = 0.05165 + 1.95982I$ | | |
| $u = 0.32663 + 1.48436I$ | | |
| $a = -0.179586 - 0.501442I$ | $-1.89529 + 6.16204I$ | 0 |
| $b = -1.55279 - 0.21910I$ | | |

| Solutions to I_1^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|------------------------------|---------------------------------------|----------------------|
| $u = 0.32663 - 1.48436I$ | | |
| $a = -0.179586 + 0.501442I$ | $-1.89529 - 6.16204I$ | 0 |
| $b = -1.55279 + 0.21910I$ | | |
| $u = 1.52172 + 0.04362I$ | | |
| $a = 0.1136510 + 0.0768899I$ | $-3.81730 - 7.05587I$ | 0 |
| $b = -0.26031 + 1.86850I$ | | |
| $u = 1.52172 - 0.04362I$ | | |
| $a = 0.1136510 - 0.0768899I$ | $-3.81730 + 7.05587I$ | 0 |
| $b = -0.26031 - 1.86850I$ | | |
| $u = 0.04978 + 1.52738I$ | | |
| $a = 0.10416 + 1.74062I$ | $-8.82034 + 3.57353I$ | 0 |
| $b = 0.01532 + 1.71376I$ | | |
| $u = 0.04978 - 1.52738I$ | | |
| $a = 0.10416 - 1.74062I$ | $-8.82034 - 3.57353I$ | 0 |
| $b = 0.01532 - 1.71376I$ | | |
| $u = 1.54191$ | | |
| $a = 1.02710$ | 4.27834 | 0 |
| $b = -1.53198$ | | |
| $u = -0.76218 + 1.43981I$ | | |
| $a = 0.91525 + 1.17056I$ | $-9.04480 - 6.06544I$ | 0 |
| $b = -0.76117 + 1.69718I$ | | |
| $u = -0.76218 - 1.43981I$ | | |
| $a = 0.91525 - 1.17056I$ | $-9.04480 + 6.06544I$ | 0 |
| $b = -0.76117 - 1.69718I$ | | |
| $u = -0.190847 + 0.310941I$ | | |
| $a = 1.112970 + 0.105678I$ | $-2.24296 + 3.68122I$ | $1.56886 + 2.39852I$ |
| $b = 0.339070 + 1.341850I$ | | |
| $u = -0.190847 - 0.310941I$ | | |
| $a = 1.112970 - 0.105678I$ | $-2.24296 - 3.68122I$ | $1.56886 - 2.39852I$ |
| $b = 0.339070 - 1.341850I$ | | |

| Solutions to I_1^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|-----------------------------|---------------------------------------|---------------------|
| $u = 0.362669$ | | |
| $a = 0.988687$ | 1.51314 | 7.48840 |
| $b = 0.580670$ | | |
| $u = 0.65497 + 1.51204I$ | | |
| $a = 0.77642 - 1.33598I$ | $-8.5771 + 14.5345I$ | 0 |
| $b = -0.62901 - 1.84217I$ | | |
| $u = 0.65497 - 1.51204I$ | | |
| $a = 0.77642 + 1.33598I$ | $-8.5771 - 14.5345I$ | 0 |
| $b = -0.62901 + 1.84217I$ | | |
| $u = 0.078087 + 0.175150I$ | | |
| $a = 10.95150 + 4.13339I$ | $4.93463 + 4.05841I$ | $18.1534 - 7.4874I$ |
| $b = -0.620164 - 0.192865I$ | | |
| $u = 0.078087 - 0.175150I$ | | |
| $a = 10.95150 - 4.13339I$ | $4.93463 - 4.05841I$ | $18.1534 + 7.4874I$ |
| $b = -0.620164 + 0.192865I$ | | |
| $u = 0.47098 + 1.75190I$ | | |
| $a = -0.432971 + 1.203300I$ | $-9.95883 + 0.76536I$ | 0 |
| $b = 0.09716 + 2.03256I$ | | |
| $u = 0.47098 - 1.75190I$ | | |
| $a = -0.432971 - 1.203300I$ | $-9.95883 - 0.76536I$ | 0 |
| $b = 0.09716 - 2.03256I$ | | |

$$\text{II. } I_2^u = \langle 411u^{15} + 80u^{14} + \cdots + 327b - 544, 1184u^{15} + 48u^{14} + \cdots + 327a + 175, u^{16} + 4u^{14} + \cdots - 2u - 1 \rangle$$

(i) **Arc colorings**

$$\begin{aligned} a_1 &= \begin{pmatrix} 1 \\ 0 \end{pmatrix} \\ a_6 &= \begin{pmatrix} 0 \\ u \end{pmatrix} \\ a_2 &= \begin{pmatrix} 1 \\ -u^2 \end{pmatrix} \\ a_9 &= \begin{pmatrix} -3.62080u^{15} - 0.146789u^{14} + \cdots + 7.28440u - 0.535168 \\ -1.25688u^{15} - 0.244648u^{14} + \cdots + 3.14067u + 1.66361 \end{pmatrix} \\ a_3 &= \begin{pmatrix} 3.38838u^{15} + 0.290520u^{14} + \cdots - 6.79205u + 2.69113 \\ -0.244648u^{15} + 0.782875u^{14} + \cdots - 0.850153u - 0.256881 \end{pmatrix} \\ a_4 &= \begin{pmatrix} 3.63303u^{15} - 0.492355u^{14} + \cdots - 5.94190u + 2.94801 \\ -0.244648u^{15} + 0.782875u^{14} + \cdots - 0.850153u - 0.256881 \end{pmatrix} \\ a_5 &= \begin{pmatrix} -u \\ u^3 + u \end{pmatrix} \\ a_8 &= \begin{pmatrix} -4.36697u^{15} + 0.507645u^{14} + \cdots + 8.05810u - 2.05199 \\ -1.22936u^{15} - 0.266055u^{14} + \cdots + 2.57798u + 1.00917 \end{pmatrix} \\ a_{11} &= \begin{pmatrix} 0.996942u^{15} + 0.743119u^{14} + \cdots - 5.75229u - 0.519878 \\ 0.155963u^{15} + 0.100917u^{14} + \cdots - 1.63303u - 0.486239 \end{pmatrix} \\ a_7 &= \begin{pmatrix} -0.345566u^{15} + 0.972477u^{14} + \cdots - 6.00917u - 4.74618 \\ 0.207951u^{15} - 0.865443u^{14} + \cdots - 1.17737u + 0.0183486 \end{pmatrix} \\ a_{10} &= \begin{pmatrix} 1.65749u^{15} - 0.103976u^{14} + \cdots - 4.59021u - 0.559633 \\ -0.0152905u^{15} - 0.284404u^{14} + \cdots - 1.76147u + 0.400612 \end{pmatrix} \\ a_{10} &= \begin{pmatrix} 1.65749u^{15} - 0.103976u^{14} + \cdots - 4.59021u - 0.559633 \\ -0.0152905u^{15} - 0.284404u^{14} + \cdots - 1.76147u + 0.400612 \end{pmatrix} \end{aligned}$$

(ii) **Obstruction class = 1**

(iii) **Cusp Shapes** = $-\frac{285}{109}u^{15} + \frac{11}{327}u^{14} + \cdots + \frac{4073}{327}u - \frac{271}{327}$

(iv) u-Polynomials at the component

| Crossings | u-Polynomials at each crossing |
|-----------|----------------------------------------|
| c_1 | $u^{16} + 4u^{14} + \cdots - 2u - 1$ |
| c_2 | $u^{16} + 4u^{14} + \cdots - 3u - 1$ |
| c_3 | $u^{16} + 7u^{15} + \cdots + 27u + 9$ |
| c_4 | $u^{16} + 4u^{15} + \cdots + u + 1$ |
| c_5 | $u^{16} + 4u^{14} + \cdots + 2u - 1$ |
| c_6 | $u^{16} + 2u^{14} + \cdots + 3u + 1$ |
| c_7 | $u^{16} - 2u^{15} + \cdots + 18u - 1$ |
| c_8 | $u^{16} + 4u^{14} + \cdots + 3u - 1$ |
| c_9 | $u^{16} - u^{15} + \cdots - 21u^2 + 5$ |
| c_{10} | $u^{16} - u^{15} + \cdots - u - 1$ |
| c_{11} | $u^{16} - 3u^{15} + \cdots - 2u - 1$ |

(v) Riley Polynomials at the component

| Crossings | Riley Polynomials at each crossing |
|------------|------------------------------------------|
| c_1, c_5 | $y^{16} + 8y^{15} + \cdots + 10y + 1$ |
| c_2, c_8 | $y^{16} + 8y^{15} + \cdots - 15y + 1$ |
| c_3 | $y^{16} - 17y^{15} + \cdots - 225y + 81$ |
| c_4 | $y^{16} - 6y^{15} + \cdots - 9y + 1$ |
| c_6 | $y^{16} + 4y^{15} + \cdots - 15y + 1$ |
| c_7 | $y^{16} + 6y^{15} + \cdots - 364y + 1$ |
| c_9 | $y^{16} - 13y^{15} + \cdots - 210y + 25$ |
| c_{10} | $y^{16} - y^{15} + \cdots - 13y + 1$ |
| c_{11} | $y^{16} + 5y^{15} + \cdots - 10y + 1$ |

(vi) Complex Volumes and Cusp Shapes

| Solutions to I_2^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|-----------------------------|---------------------------------------|-------------------------|
| $u = -0.351578 + 0.904816I$ | | |
| $a = 1.052930 + 0.365066I$ | $1.037660 - 0.078170I$ | $8.99757 - 0.56181I$ |
| $b = 0.941434 + 0.633888I$ | | |
| $u = -0.351578 - 0.904816I$ | | |
| $a = 1.052930 - 0.365066I$ | $1.037660 + 0.078170I$ | $8.99757 + 0.56181I$ |
| $b = 0.941434 - 0.633888I$ | | |
| $u = -0.426826 + 0.970389I$ | | |
| $a = 0.491146 - 0.758867I$ | $0.63338 - 3.05324I$ | $12.18746 + 3.83561I$ |
| $b = 0.744279 - 0.333017I$ | | |
| $u = -0.426826 - 0.970389I$ | | |
| $a = 0.491146 + 0.758867I$ | $0.63338 + 3.05324I$ | $12.18746 - 3.83561I$ |
| $b = 0.744279 + 0.333017I$ | | |
| $u = 0.437533 + 0.756284I$ | | |
| $a = -0.346240 + 0.869346I$ | $-4.94918 + 0.09603I$ | $3.84796 + 1.04513I$ |
| $b = 0.380134 - 0.976408I$ | | |
| $u = 0.437533 - 0.756284I$ | | |
| $a = -0.346240 - 0.869346I$ | $-4.94918 - 0.09603I$ | $3.84796 - 1.04513I$ |
| $b = 0.380134 + 0.976408I$ | | |
| $u = -1.33401$ | | |
| $a = -1.14234$ | 4.66021 | 14.5890 |
| $b = 1.45019$ | | |
| $u = 0.045118 + 0.600191I$ | | |
| $a = -4.18562 - 0.13881I$ | $4.54626 - 3.92164I$ | $-0.825014 + 0.819860I$ |
| $b = -0.457773 + 0.219345I$ | | |
| $u = 0.045118 - 0.600191I$ | | |
| $a = -4.18562 + 0.13881I$ | $4.54626 + 3.92164I$ | $-0.825014 - 0.819860I$ |
| $b = -0.457773 - 0.219345I$ | | |
| $u = -0.426918 + 0.416046I$ | | |
| $a = -0.794820 - 0.479672I$ | $-2.10953 - 4.31438I$ | $3.92733 + 9.24718I$ |
| $b = 0.231103 - 1.368400I$ | | |

| Solutions to I_2^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|-----------------------------|---------------------------------------|----------------------|
| $u = -0.426918 - 0.416046I$ | | |
| $a = -0.794820 + 0.479672I$ | $-2.10953 + 4.31438I$ | $3.92733 - 9.24718I$ |
| $b = 0.231103 + 1.368400I$ | | |
| $u = 0.473070 + 1.323390I$ | | |
| $a = 0.394143 + 0.116229I$ | $0.84655 + 6.12118I$ | $6.68270 - 6.03281I$ |
| $b = -0.686442 + 0.076962I$ | | |
| $u = 0.473070 - 1.323390I$ | | |
| $a = 0.394143 - 0.116229I$ | $0.84655 - 6.12118I$ | $6.68270 + 6.03281I$ |
| $b = -0.686442 - 0.076962I$ | | |
| $u = 1.52605$ | | |
| $a = 1.18323$ | 6.23435 | -3.38260 |
| $b = -1.02090$ | | |
| $u = 0.15358 + 1.53821I$ | | |
| $a = -0.13199 + 1.70834I$ | $-8.74229 + 3.03673I$ | $2.57896 + 2.26924I$ |
| $b = 0.13262 + 1.73681I$ | | |
| $u = 0.15358 - 1.53821I$ | | |
| $a = -0.13199 - 1.70834I$ | $-8.74229 - 3.03673I$ | $2.57896 - 2.26924I$ |
| $b = 0.13262 - 1.73681I$ | | |

III. u-Polynomials

| Crossings | u-Polynomials at each crossing |
|-----------|---------------------------------------------------------------------------------|
| c_1 | $(u^{16} + 4u^{14} + \dots - 2u - 1)(u^{47} - u^{46} + \dots - 21u + 6)$ |
| c_2 | $(u^{16} + 4u^{14} + \dots - 3u - 1)(u^{47} - u^{46} + \dots - 17271u + 4993)$ |
| c_3 | $(u^{16} + 7u^{15} + \dots + 27u + 9)(u^{47} - 4u^{46} + \dots + 503u - 103)$ |
| c_4 | $(u^{16} + 4u^{15} + \dots + u + 1)(u^{47} + 3u^{46} + \dots + 3u + 1)$ |
| c_5 | $(u^{16} + 4u^{14} + \dots + 2u - 1)(u^{47} - u^{46} + \dots - 21u + 6)$ |
| c_6 | $(u^{16} + 2u^{14} + \dots + 3u + 1)(u^{47} + 5u^{46} + \dots + 25u - 25)$ |
| c_7 | $(u^{16} - 2u^{15} + \dots + 18u - 1)(u^{47} + u^{46} + \dots - 9496u + 1136)$ |
| c_8 | $(u^{16} + 4u^{14} + \dots + 3u - 1)(u^{47} - u^{46} + \dots - 17271u + 4993)$ |
| c_9 | $(u^{16} - u^{15} + \dots - 21u^2 + 5)(u^{47} + 2u^{46} + \dots - 115u - 38)$ |
| c_{10} | $(u^{16} - u^{15} + \dots - u - 1)(u^{47} - 9u^{45} + \dots + 1771u - 137)$ |
| c_{11} | $(u^{16} - 3u^{15} + \dots - 2u - 1)(u^{47} + 26u^{45} + \dots - 7818u + 1097)$ |

IV. Riley Polynomials

| Crossings | Riley Polynomials at each crossing |
|------------|--------------------------------------------------------------------------------------------------|
| c_1, c_5 | $(y^{16} + 8y^{15} + \dots + 10y + 1)(y^{47} + 35y^{46} + \dots - 1923y - 36)$ |
| c_2, c_8 | $(y^{16} + 8y^{15} + \dots - 15y + 1) \cdot (y^{47} + 67y^{46} + \dots - 225548161y - 24930049)$ |
| c_3 | $(y^{16} - 17y^{15} + \dots - 225y + 81) \cdot (y^{47} - 58y^{46} + \dots + 257953y - 10609)$ |
| c_4 | $(y^{16} - 6y^{15} + \dots - 9y + 1)(y^{47} - 7y^{46} + \dots + 9y - 1)$ |
| c_6 | $(y^{16} + 4y^{15} + \dots - 15y + 1)(y^{47} - y^{46} + \dots + 17375y - 625)$ |
| c_7 | $(y^{16} + 6y^{15} + \dots - 364y + 1) \cdot (y^{47} + 33y^{46} + \dots + 121024y - 1290496)$ |
| c_9 | $(y^{16} - 13y^{15} + \dots - 210y + 25)(y^{47} - 22y^{46} + \dots + 9957y - 1444)$ |
| c_{10} | $(y^{16} - y^{15} + \dots - 13y + 1)(y^{47} - 18y^{46} + \dots + 2612553y - 18769)$ |
| c_{11} | $(y^{16} + 5y^{15} + \dots - 10y + 1) \cdot (y^{47} + 52y^{46} + \dots + 1652754y - 1203409)$ |