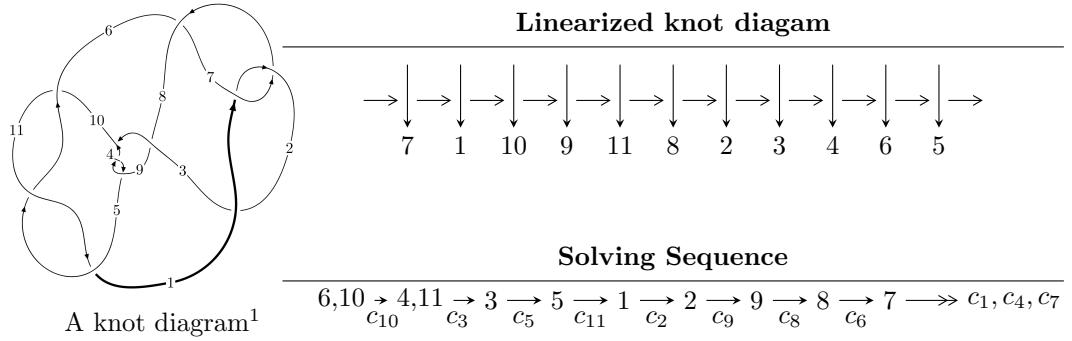


$11a_{237}$ ($K11a_{237}$)



Ideals for irreducible components² of X_{par}

$$I_1^u = \langle b - u, u^{19} - u^{18} + \dots + 4a + 1, u^{20} + 11u^{18} + \dots + 3u - 1 \rangle$$

$$I_2^u = \langle -159484971u^{29} + 121594878u^{28} + \dots + 95716253b + 570195911, -u^{29} + u^{28} + \dots + a + 6, u^{30} - u^{29} + \dots - 6u + 1 \rangle$$

$$I_3^u = \langle b + u, a^2 - 2au - a + u, u^2 + 1 \rangle$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 54 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.

$$\mathbf{I.} \quad I_1^u = \langle b - u, \ u^{19} - u^{18} + \cdots + 4a + 1, \ u^{20} + 11u^{18} + \cdots + 3u - 1 \rangle$$

(i) Arc colorings

$$\begin{aligned} a_6 &= \begin{pmatrix} 0 \\ u \end{pmatrix} \\ a_{10} &= \begin{pmatrix} 1 \\ 0 \end{pmatrix} \\ a_4 &= \begin{pmatrix} -\frac{1}{4}u^{19} + \frac{1}{4}u^{18} + \cdots + 3u - \frac{1}{4} \\ u \end{pmatrix} \\ a_{11} &= \begin{pmatrix} 1 \\ u^2 \end{pmatrix} \\ a_3 &= \begin{pmatrix} -\frac{1}{4}u^{19} + \frac{1}{4}u^{18} + \cdots + 4u - \frac{1}{4} \\ u \end{pmatrix} \\ a_5 &= \begin{pmatrix} u \\ u^3 + u \end{pmatrix} \\ a_1 &= \begin{pmatrix} u^2 + 1 \\ u^4 + 2u^2 \end{pmatrix} \\ a_2 &= \begin{pmatrix} -\frac{1}{4}u^{19} + \frac{1}{4}u^{18} + \cdots + 5u - \frac{1}{4} \\ \frac{1}{4}u^{19} - \frac{1}{4}u^{18} + \cdots + u^2 + \frac{1}{4} \end{pmatrix} \\ a_9 &= \begin{pmatrix} -\frac{1}{4}u^{19} - \frac{1}{4}u^{18} + \cdots - \frac{1}{2}u + \frac{5}{4} \\ -u^2 \end{pmatrix} \\ a_8 &= \begin{pmatrix} -\frac{1}{4}u^{19} - \frac{1}{4}u^{18} + \cdots - \frac{1}{2}u + \frac{5}{4} \\ -u^4 - 2u^2 \end{pmatrix} \\ a_7 &= \begin{pmatrix} \frac{1}{2}u^{19} + \frac{1}{2}u^{18} + \cdots + \frac{5}{2}u^2 - 2u \\ \frac{1}{4}u^{19} - \frac{1}{4}u^{18} + \cdots + u^2 + \frac{1}{4} \end{pmatrix} \\ a_7 &= \begin{pmatrix} \frac{1}{2}u^{19} + \frac{1}{2}u^{18} + \cdots + \frac{5}{2}u^2 - 2u \\ \frac{1}{4}u^{19} - \frac{1}{4}u^{18} + \cdots + u^2 + \frac{1}{4} \end{pmatrix} \end{aligned}$$

(ii) Obstruction class = -1

$$(iii) \text{ Cusp Shapes} = -2u^{19} - 21u^{17} - 3u^{16} - 91u^{15} - 30u^{14} - 202u^{13} - 119u^{12} - 224u^{11} - 227u^{10} - 84u^9 - 181u^8 + 22u^7 + 14u^6 - 22u^5 + 64u^4 - 28u^3 - 25u^2 + 12u - 19$$

(iv) u-Polynomials at the component

| Crossings | u-Polynomials at each crossing |
|--|--|
| c_1, c_7 | $u^{20} + 3u^{19} + \cdots - 9u - 2$ |
| c_2, c_6 | $u^{20} + 7u^{19} + \cdots + 33u + 4$ |
| c_3, c_4, c_5 c_9, c_{10}, c_{11} | $u^{20} + 11u^{18} + \cdots - 3u - 1$ |
| c_8 | $u^{20} - 3u^{19} + \cdots - 48u - 32$ |

(v) Riley Polynomials at the component

| Crossings | Riley Polynomials at each crossing |
|--|---|
| c_1, c_7 | $y^{20} - 7y^{19} + \cdots - 33y + 4$ |
| c_2, c_6 | $y^{20} + 13y^{19} + \cdots - 561y + 16$ |
| c_3, c_4, c_5 c_9, c_{10}, c_{11} | $y^{20} + 22y^{19} + \cdots - 5y + 1$ |
| c_8 | $y^{20} - y^{19} + \cdots + 3328y + 1024$ |

(vi) Complex Volumes and Cusp Shapes

| Solutions to I_1^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|-----------------------------|---------------------------------------|------------------------|
| $u = -0.711644 + 0.213665I$ | | |
| $a = -0.992229 + 0.085972I$ | $-0.77253 + 5.59830I$ | $-13.4954 - 6.8250I$ |
| $b = -0.711644 + 0.213665I$ | | |
| $u = -0.711644 - 0.213665I$ | | |
| $a = -0.992229 - 0.085972I$ | $-0.77253 - 5.59830I$ | $-13.4954 + 6.8250I$ |
| $b = -0.711644 - 0.213665I$ | | |
| $u = -0.714807$ | | |
| $a = -0.946170$ | -4.75848 | -19.2850 |
| $b = -0.714807$ | | |
| $u = 0.147507 + 1.344930I$ | | |
| $a = 1.07486 - 2.87571I$ | $5.87096 + 0.28405I$ | $-5.48153 - 0.41216I$ |
| $b = 0.147507 + 1.344930I$ | | |
| $u = 0.147507 - 1.344930I$ | | |
| $a = 1.07486 + 2.87571I$ | $5.87096 - 0.28405I$ | $-5.48153 + 0.41216I$ |
| $b = 0.147507 - 1.344930I$ | | |
| $u = 0.601815 + 0.228236I$ | | |
| $a = 0.950028 + 0.149217I$ | $0.157185 - 0.414126I$ | $-12.01664 + 2.08787I$ |
| $b = 0.601815 + 0.228236I$ | | |
| $u = 0.601815 - 0.228236I$ | | |
| $a = 0.950028 - 0.149217I$ | $0.157185 + 0.414126I$ | $-12.01664 - 2.08787I$ |
| $b = 0.601815 - 0.228236I$ | | |
| $u = 0.280299 + 1.365240I$ | | |
| $a = 1.37177 - 2.14002I$ | $3.92725 - 7.17367I$ | $-8.70322 + 5.73165I$ |
| $b = 0.280299 + 1.365240I$ | | |
| $u = 0.280299 - 1.365240I$ | | |
| $a = 1.37177 + 2.14002I$ | $3.92725 + 7.17367I$ | $-8.70322 - 5.73165I$ |
| $b = 0.280299 - 1.365240I$ | | |
| $u = -0.20040 + 1.40896I$ | | |
| $a = -1.00049 - 2.38403I$ | $8.53664 + 4.27425I$ | $-2.38649 - 3.51536I$ |
| $b = -0.20040 + 1.40896I$ | | |

| Solutions to I_1^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|----------------------------|---------------------------------------|-----------------------|
| $u = -0.20040 - 1.40896I$ | | |
| $a = -1.00049 + 2.38403I$ | $8.53664 - 4.27425I$ | $-2.38649 + 3.51536I$ |
| $b = -0.20040 - 1.40896I$ | | |
| $u = 0.35253 + 1.44249I$ | | |
| $a = 1.15928 - 1.78353I$ | $9.8480 - 13.6547I$ | $-5.09222 + 8.08354I$ |
| $b = 0.35253 + 1.44249I$ | | |
| $u = 0.35253 - 1.44249I$ | | |
| $a = 1.15928 + 1.78353I$ | $9.8480 + 13.6547I$ | $-5.09222 - 8.08354I$ |
| $b = 0.35253 - 1.44249I$ | | |
| $u = -0.32179 + 1.45317I$ | | |
| $a = -1.09427 - 1.86772I$ | $11.02130 + 7.69202I$ | $-3.25100 - 3.40395I$ |
| $b = -0.32179 + 1.45317I$ | | |
| $u = -0.32179 - 1.45317I$ | | |
| $a = -1.09427 + 1.86772I$ | $11.02130 - 7.69202I$ | $-3.25100 + 3.40395I$ |
| $b = -0.32179 - 1.45317I$ | | |
| $u = 0.074422 + 0.475930I$ | | |
| $a = 0.299691 + 1.194600I$ | $1.45151 - 2.34993I$ | $-9.21397 + 4.74077I$ |
| $b = 0.074422 + 0.475930I$ | | |
| $u = 0.074422 - 0.475930I$ | | |
| $a = 0.299691 - 1.194600I$ | $1.45151 + 2.34993I$ | $-9.21397 - 4.74077I$ |
| $b = 0.074422 - 0.475930I$ | | |
| $u = -0.02313 + 1.54067I$ | | |
| $a = -0.08257 - 2.23973I$ | $15.2534 + 3.0855I$ | $-1.70716 - 2.62885I$ |
| $b = -0.02313 + 1.54067I$ | | |
| $u = -0.02313 - 1.54067I$ | | |
| $a = -0.08257 + 2.23973I$ | $15.2534 - 3.0855I$ | $-1.70716 + 2.62885I$ |
| $b = -0.02313 - 1.54067I$ | | |
| $u = 0.315603$ | | |
| $a = 0.574029$ | -0.553031 | -18.0200 |
| $b = 0.315603$ | | |

$$\text{II. } I_2^u = \langle -1.59 \times 10^8 u^{29} + 1.22 \times 10^8 u^{28} + \dots + 9.57 \times 10^7 b + 5.70 \times 10^8, -u^{29} + u^{28} + \dots + a + 6, u^{30} - u^{29} + \dots - 6u + 1 \rangle$$

(i) **Arc colorings**

$$\begin{aligned} a_6 &= \begin{pmatrix} 0 \\ u \end{pmatrix} \\ a_{10} &= \begin{pmatrix} 1 \\ 0 \end{pmatrix} \\ a_4 &= \begin{pmatrix} u^{29} - u^{28} + \dots + 10u - 6 \\ 1.66623u^{29} - 1.27037u^{28} + \dots + 17.4027u - 5.95715 \end{pmatrix} \\ a_{11} &= \begin{pmatrix} 1 \\ u^2 \end{pmatrix} \\ a_3 &= \begin{pmatrix} 2.66623u^{29} - 2.27037u^{28} + \dots + 27.4027u - 11.9571 \\ 1.66623u^{29} - 1.27037u^{28} + \dots + 17.4027u - 5.95715 \end{pmatrix} \\ a_5 &= \begin{pmatrix} u \\ u^3 + u \end{pmatrix} \\ a_1 &= \begin{pmatrix} u^2 + 1 \\ u^4 + 2u^2 \end{pmatrix} \\ a_2 &= \begin{pmatrix} 4.72929u^{29} - 3.69976u^{28} + \dots + 46.3017u - 17.7300 \\ 2.22042u^{29} - 1.73024u^{28} + \dots + 21.0519u - 7.17018 \end{pmatrix} \\ a_9 &= \begin{pmatrix} 5.95715u^{29} - 4.29092u^{28} + \dots + 56.4198u - 17.3402 \\ 0.395859u^{29} + 0.105883u^{28} + \dots + 4.04021u - 0.666227 \end{pmatrix} \\ a_8 &= \begin{pmatrix} 5.19351u^{29} - 3.62763u^{28} + \dots + 49.7650u - 14.1723 \\ -0.367778u^{29} + 0.769175u^{28} + \dots - 2.61459u + 1.50174 \end{pmatrix} \\ a_7 &= \begin{pmatrix} -6.74902u^{29} + 4.86232u^{28} + \dots - 65.5259u + 23.3729 \\ -2.01973u^{29} + 1.16256u^{28} + \dots - 17.2242u + 5.64291 \end{pmatrix} \\ a_7 &= \begin{pmatrix} -6.74902u^{29} + 4.86232u^{28} + \dots - 65.5259u + 23.3729 \\ -2.01973u^{29} + 1.16256u^{28} + \dots - 17.2242u + 5.64291 \end{pmatrix} \end{aligned}$$

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

$$(iii) \text{ Cusp Shapes} = \frac{583799292}{95716253}u^{29} - \frac{406184408}{95716253}u^{28} + \dots + \frac{4386525380}{95716253}u - \frac{2570388306}{95716253}$$

(iv) u-Polynomials at the component

| Crossings | u-Polynomials at each crossing |
|--|---|
| c_1, c_7 | $(u^{15} - u^{14} + \cdots + 2u - 1)^2$ |
| c_2, c_6 | $(u^{15} + 5u^{14} + \cdots + 12u^3 + 1)^2$ |
| c_3, c_4, c_5 c_9, c_{10}, c_{11} | $u^{30} + u^{29} + \cdots + 6u + 1$ |
| c_8 | $(u^{15} + u^{14} + \cdots - 4u - 1)^2$ |

(v) Riley Polynomials at the component

| Crossings | Riley Polynomials at each crossing |
|--|--|
| c_1, c_7 | $(y^{15} - 5y^{14} + \cdots + 12y^3 - 1)^2$ |
| c_2, c_6 | $(y^{15} + 11y^{14} + \cdots - 84y^2 - 1)^2$ |
| c_3, c_4, c_5 c_9, c_{10}, c_{11} | $y^{30} + 23y^{29} + \cdots - 16y + 1$ |
| c_8 | $(y^{15} - y^{14} + \cdots + 16y - 1)^2$ |

(vi) Complex Volumes and Cusp Shapes

| Solutions to I_2^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|-----------------------------|---------------------------------------|------------------------|
| $u = -0.171252 + 1.009920I$ | | |
| $a = 0.163210 + 0.962498I$ | $1.46912 - 2.07402I$ | $-11.82822 + 2.67122I$ |
| $b = 0.318180 + 0.052816I$ | | |
| $u = -0.171252 - 1.009920I$ | | |
| $a = 0.163210 - 0.962498I$ | $1.46912 + 2.07402I$ | $-11.82822 - 2.67122I$ |
| $b = 0.318180 - 0.052816I$ | | |
| $u = -0.607011 + 0.856391I$ | | |
| $a = 0.550893 + 0.777218I$ | $6.82325 + 1.50523I$ | $-3.84867 - 2.74048I$ |
| $b = -0.108390 - 1.374740I$ | | |
| $u = -0.607011 - 0.856391I$ | | |
| $a = 0.550893 - 0.777218I$ | $6.82325 - 1.50523I$ | $-3.84867 + 2.74048I$ |
| $b = -0.108390 + 1.374740I$ | | |
| $u = 0.879105 + 0.290763I$ | | |
| $a = -1.025350 + 0.339134I$ | $4.31617 - 9.21780I$ | $-8.14540 + 7.39135I$ |
| $b = -0.28507 - 1.38638I$ | | |
| $u = 0.879105 - 0.290763I$ | | |
| $a = -1.025350 - 0.339134I$ | $4.31617 + 9.21780I$ | $-8.14540 - 7.39135I$ |
| $b = -0.28507 + 1.38638I$ | | |
| $u = -0.836240 + 0.341718I$ | | |
| $a = 1.024720 + 0.418737I$ | $5.27292 + 3.51852I$ | $-6.28698 - 2.59027I$ |
| $b = 0.241243 - 1.382540I$ | | |
| $u = -0.836240 - 0.341718I$ | | |
| $a = 1.024720 - 0.418737I$ | $5.27292 - 3.51852I$ | $-6.28698 + 2.59027I$ |
| $b = 0.241243 + 1.382540I$ | | |
| $u = 0.587196 + 0.946781I$ | | |
| $a = -0.473090 + 0.762799I$ | $6.30676 + 4.09199I$ | $-4.95573 - 3.15094I$ |
| $b = 0.171749 - 1.369410I$ | | |
| $u = 0.587196 - 0.946781I$ | | |
| $a = -0.473090 - 0.762799I$ | $6.30676 - 4.09199I$ | $-4.95573 + 3.15094I$ |
| $b = 0.171749 + 1.369410I$ | | |

| Solutions to I_2^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|-----------------------------|---------------------------------------|-----------------------|
| $u = 0.269205 + 1.103370I$ | | |
| $a = -0.208705 + 0.855397I$ | 1.86559 | $-10.56339 + 0.I$ |
| $b = 0.269205 - 1.103370I$ | | |
| $u = 0.269205 - 1.103370I$ | | |
| $a = -0.208705 - 0.855397I$ | 1.86559 | $-10.56339 + 0.I$ |
| $b = 0.269205 + 1.103370I$ | | |
| $u = 0.119824 + 1.236680I$ | | |
| $a = -0.077620 + 0.801099I$ | 2.93870 - 1.66084I | $-6.48958 + 3.96405I$ |
| $b = -0.505429 - 0.368881I$ | | |
| $u = 0.119824 - 1.236680I$ | | |
| $a = -0.077620 - 0.801099I$ | 2.93870 + 1.66084I | $-6.48958 - 3.96405I$ |
| $b = -0.505429 + 0.368881I$ | | |
| $u = 0.706910 + 0.161570I$ | | |
| $a = -1.344380 + 0.307269I$ | -0.91830 - 3.60340I | $-14.1637 + 4.4767I$ |
| $b = -0.280017 - 1.247240I$ | | |
| $u = 0.706910 - 0.161570I$ | | |
| $a = -1.344380 - 0.307269I$ | -0.91830 + 3.60340I | $-14.1637 - 4.4767I$ |
| $b = -0.280017 + 1.247240I$ | | |
| $u = -0.280017 + 1.247240I$ | | |
| $a = 0.171369 + 0.763299I$ | -0.91830 + 3.60340I | $-14.1637 - 4.4767I$ |
| $b = 0.706910 - 0.161570I$ | | |
| $u = -0.280017 - 1.247240I$ | | |
| $a = 0.171369 - 0.763299I$ | -0.91830 - 3.60340I | $-14.1637 + 4.4767I$ |
| $b = 0.706910 + 0.161570I$ | | |
| $u = -0.505429 + 0.368881I$ | | |
| $a = 1.29090 + 0.94215I$ | 2.93870 + 1.66084I | $-6.48958 - 3.96405I$ |
| $b = 0.119824 - 1.236680I$ | | |
| $u = -0.505429 - 0.368881I$ | | |
| $a = 1.29090 - 0.94215I$ | 2.93870 - 1.66084I | $-6.48958 + 3.96405I$ |
| $b = 0.119824 + 1.236680I$ | | |

| Solutions to I_2^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|-----------------------------|---------------------------------------|------------------------|
| $u = -0.108390 + 1.374740I$ | | |
| $a = 0.056998 + 0.722915I$ | $6.82325 - 1.50523I$ | $-3.84867 + 2.74048I$ |
| $b = -0.607011 - 0.856391I$ | | |
| $u = -0.108390 - 1.374740I$ | | |
| $a = 0.056998 - 0.722915I$ | $6.82325 + 1.50523I$ | $-3.84867 - 2.74048I$ |
| $b = -0.607011 + 0.856391I$ | | |
| $u = 0.171749 + 1.369410I$ | | |
| $a = -0.090167 + 0.718933I$ | $6.30676 - 4.09199I$ | $-4.95573 + 3.15094I$ |
| $b = 0.587196 - 0.946781I$ | | |
| $u = 0.171749 - 1.369410I$ | | |
| $a = -0.090167 - 0.718933I$ | $6.30676 + 4.09199I$ | $-4.95573 - 3.15094I$ |
| $b = 0.587196 + 0.946781I$ | | |
| $u = 0.241243 + 1.382540I$ | | |
| $a = -0.122482 + 0.701932I$ | $5.27292 - 3.51852I$ | $-6.28698 + 2.59027I$ |
| $b = -0.836240 - 0.341718I$ | | |
| $u = 0.241243 - 1.382540I$ | | |
| $a = -0.122482 - 0.701932I$ | $5.27292 + 3.51852I$ | $-6.28698 - 2.59027I$ |
| $b = -0.836240 + 0.341718I$ | | |
| $u = -0.28507 + 1.38638I$ | | |
| $a = 0.142301 + 0.692043I$ | $4.31617 + 9.21780I$ | $-8.14540 - 7.39135I$ |
| $b = 0.879105 - 0.290763I$ | | |
| $u = -0.28507 - 1.38638I$ | | |
| $a = 0.142301 - 0.692043I$ | $4.31617 - 9.21780I$ | $-8.14540 + 7.39135I$ |
| $b = 0.879105 + 0.290763I$ | | |
| $u = 0.318180 + 0.052816I$ | | |
| $a = -3.05860 + 0.50771I$ | $1.46912 - 2.07402I$ | $-11.82822 + 2.67122I$ |
| $b = -0.171252 + 1.009920I$ | | |
| $u = 0.318180 - 0.052816I$ | | |
| $a = -3.05860 - 0.50771I$ | $1.46912 + 2.07402I$ | $-11.82822 - 2.67122I$ |
| $b = -0.171252 - 1.009920I$ | | |

$$\text{III. } I_3^u = \langle b + u, \ a^2 - 2au - a + u, \ u^2 + 1 \rangle$$

(i) Arc colorings

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

$$a_{10} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} a \\ -u \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} a-u \\ -u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u \\ 0 \end{pmatrix}$$

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

$$a_2 = \begin{pmatrix} a-u \\ -a \end{pmatrix}$$

$$a_9 = \begin{pmatrix} au+1 \\ 1 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} au+1 \\ 1 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} au-u+1 \\ a \end{pmatrix}$$

$$a_7 = \begin{pmatrix} au-u+1 \\ a \end{pmatrix}$$

(ii) Obstruction class = 1

(iii) Cusp Shapes = $4a - 4u - 8$

(iv) u-Polynomials at the component

| Crossings | u-Polynomials at each crossing |
|--|--------------------------------|
| c_1, c_7 | $u^4 - u^2 + 1$ |
| c_2 | $(u^2 + u + 1)^2$ |
| c_3, c_4, c_5 c_9, c_{10}, c_{11} | $(u^2 + 1)^2$ |
| c_6 | $(u^2 - u + 1)^2$ |
| c_8 | u^4 |

(v) Riley Polynomials at the component

| Crossings | Riley Polynomials at each crossing |
|--|------------------------------------|
| c_1, c_7 | $(y^2 - y + 1)^2$ |
| c_2, c_6 | $(y^2 + y + 1)^2$ |
| c_3, c_4, c_5 c_9, c_{10}, c_{11} | $(y + 1)^4$ |
| c_8 | y^4 |

(vi) Complex Volumes and Cusp Shapes

| Solutions to I_3^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|----------------------------|---------------------------------------|-----------------------|
| $u = 1.000000I$ | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | |
| $a = 0.500000 + 0.133975I$ | $3.28987 + 2.02988I$ | $-6.00000 - 3.46410I$ |
| $b = -1.000000I$ | | |
| $u = 1.000000I$ | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | |
| $a = 0.50000 + 1.86603I$ | $3.28987 - 2.02988I$ | $-6.00000 + 3.46410I$ |
| $b = -1.000000I$ | | |
| $u = -1.000000I$ | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | |
| $a = 0.500000 - 0.133975I$ | $3.28987 - 2.02988I$ | $-6.00000 + 3.46410I$ |
| $b = 1.000000I$ | | |
| $u = -1.000000I$ | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | |
| $a = 0.50000 - 1.86603I$ | $3.28987 + 2.02988I$ | $-6.00000 - 3.46410I$ |
| $b = 1.000000I$ | | |

IV. u-Polynomials

| Crossings | u-Polynomials at each crossing |
|--|--|
| c_1, c_7 | $(u^4 - u^2 + 1)(u^{15} - u^{14} + \dots + 2u - 1)^2(u^{20} + 3u^{19} + \dots - 9u - 2)$ |
| c_2 | $((u^2 + u + 1)^2)(u^{15} + 5u^{14} + \dots + 12u^3 + 1)^2 \cdot (u^{20} + 7u^{19} + \dots + 33u + 4)$ |
| c_3, c_4, c_5 c_9, c_{10}, c_{11} | $((u^2 + 1)^2)(u^{20} + 11u^{18} + \dots - 3u - 1)(u^{30} + u^{29} + \dots + 6u + 1)$ |
| c_6 | $((u^2 - u + 1)^2)(u^{15} + 5u^{14} + \dots + 12u^3 + 1)^2 \cdot (u^{20} + 7u^{19} + \dots + 33u + 4)$ |
| c_8 | $u^4(u^{15} + u^{14} + \dots - 4u - 1)^2(u^{20} - 3u^{19} + \dots - 48u - 32)$ |

V. Riley Polynomials

| Crossings | Riley Polynomials at each crossing |
|--|---|
| c_1, c_7 | $((y^2 - y + 1)^2)(y^{15} - 5y^{14} + \dots + 12y^3 - 1)^2$ $\cdot (y^{20} - 7y^{19} + \dots - 33y + 4)$ |
| c_2, c_6 | $((y^2 + y + 1)^2)(y^{15} + 11y^{14} + \dots - 84y^2 - 1)^2$ $\cdot (y^{20} + 13y^{19} + \dots - 561y + 16)$ |
| c_3, c_4, c_5 c_9, c_{10}, c_{11} | $((y + 1)^4)(y^{20} + 22y^{19} + \dots - 5y + 1)(y^{30} + 23y^{29} + \dots - 16y + 1)$ |
| c_8 | $y^4(y^{15} - y^{14} + \dots + 16y - 1)^2(y^{20} - y^{19} + \dots + 3328y + 1024)$ |