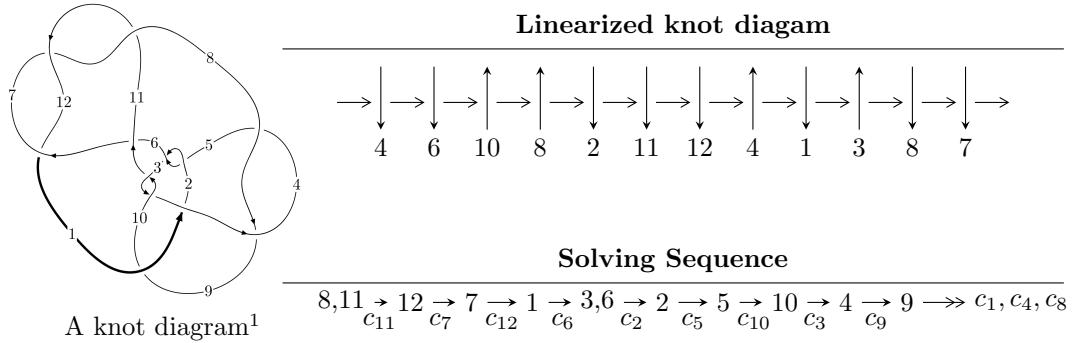


12n₀₇₉₅ (K12n₀₇₉₅)



Ideals for irreducible components² of X_{par}

$$I_1^u = \langle -1.02240 \times 10^{36} u^{53} - 1.89768 \times 10^{37} u^{52} + \dots + 3.08931 \times 10^{37} b + 8.64765 \times 10^{37}, \\ - 3.79905 \times 10^{37} u^{53} - 2.32864 \times 10^{37} u^{52} + \dots + 3.39824 \times 10^{38} a + 7.15973 \times 10^{38}, \\ u^{54} + 2u^{53} + \dots - 68u - 11 \rangle$$

$$I_2^u = \langle -u^{14} - 7u^{12} - 18u^{10} + u^9 - 19u^8 + 5u^7 - 4u^6 + 7u^5 + 3u^4 + u^3 - u^2 + b - 3u, \\ -u^{14} + 2u^{13} - 9u^{12} + 15u^{11} - 31u^{10} + 43u^9 - 50u^8 + 56u^7 - 35u^6 + 26u^5 - 3u^4 - 6u^3 + 7u^2 + a - 5u + 4 \\ u^{15} - u^{14} + 9u^{13} - 8u^{12} + 32u^{11} - 25u^{10} + 55u^9 - 37u^8 + 42u^7 - 22u^6 + 4u^5 + 3u^4 - 8u^3 + 7u^2 + 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 69 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.

$$\text{I. } I_1^u = \langle -1.02 \times 10^{36}u^{53} - 1.90 \times 10^{37}u^{52} + \dots + 3.09 \times 10^{37}b + 8.65 \times 10^{37}, -3.80 \times 10^{37}u^{53} - 2.33 \times 10^{37}u^{52} + \dots + 3.40 \times 10^{38}a + 7.16 \times 10^{38}, u^{54} + 2u^{53} + \dots - 68u - 11 \rangle$$

(i) **Arc colorings**

$$\begin{aligned} a_8 &= \begin{pmatrix} 0 \\ u \end{pmatrix} \\ a_{11} &= \begin{pmatrix} 1 \\ 0 \end{pmatrix} \\ a_{12} &= \begin{pmatrix} 1 \\ u^2 \end{pmatrix} \\ a_7 &= \begin{pmatrix} u \\ u^3 + u \end{pmatrix} \\ a_1 &= \begin{pmatrix} u^2 + 1 \\ u^4 + 2u^2 \end{pmatrix} \\ a_3 &= \begin{pmatrix} 0.111794u^{53} + 0.0685248u^{52} + \dots - 6.32751u - 2.10689 \\ 0.0330947u^{53} + 0.614273u^{52} + \dots - 14.1115u - 2.79922 \end{pmatrix} \\ a_6 &= \begin{pmatrix} u^3 + 2u \\ u^3 + u \end{pmatrix} \\ a_2 &= \begin{pmatrix} -0.0462518u^{53} - 0.197231u^{52} + \dots + 18.3660u + 3.41252 \\ -0.0768640u^{53} + 0.598332u^{52} + \dots - 7.25300u - 0.884533 \end{pmatrix} \\ a_5 &= \begin{pmatrix} 0.598411u^{53} + 0.724886u^{52} + \dots - 4.83758u - 2.53344 \\ 0.644293u^{53} + 0.0999628u^{52} + \dots + 2.37484u - 0.981251 \end{pmatrix} \\ a_{10} &= \begin{pmatrix} 0.869370u^{53} + 1.10346u^{52} + \dots - 57.0809u - 12.2337 \\ 0.758825u^{53} + 2.10666u^{52} + \dots - 76.2371u - 14.3877 \end{pmatrix} \\ a_4 &= \begin{pmatrix} -0.598411u^{53} - 0.724886u^{52} + \dots + 4.83758u + 2.53344 \\ 0.0503708u^{53} + 0.206592u^{52} + \dots + 23.1342u + 6.17254 \end{pmatrix} \\ a_9 &= \begin{pmatrix} 1.21296u^{53} + 1.80879u^{52} + \dots - 76.8483u - 15.7970 \\ 0.882160u^{53} + 2.58325u^{52} + \dots - 91.2590u - 17.2428 \end{pmatrix} \end{aligned}$$

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

(iii) **Cusp Shapes** = $-0.660515u^{53} - 1.00096u^{52} + \dots - 64.0934u - 26.6095$

(iv) u-Polynomials at the component

| Crossings | u-Polynomials at each crossing |
|-----------------------|--|
| c_1 | $u^{54} - u^{53} + \cdots + 161u - 7$ |
| c_2, c_5 | $u^{54} + 4u^{53} + \cdots + 100u - 7$ |
| c_3, c_{10} | $u^{54} + u^{53} + \cdots - 24u + 79$ |
| c_4, c_8 | $u^{54} - 3u^{53} + \cdots - 1056u + 279$ |
| c_6 | $u^{54} - 2u^{53} + \cdots - 9058u - 3839$ |
| c_7, c_{11}, c_{12} | $u^{54} + 2u^{53} + \cdots - 68u - 11$ |
| c_9 | $u^{54} + u^{53} + \cdots + 34u - 1$ |

(v) Riley Polynomials at the component

| Crossings | Riley Polynomials at each crossing |
|-----------------------|---|
| c_1 | $y^{54} + 53y^{53} + \cdots - 8141y + 49$ |
| c_2, c_5 | $y^{54} - 22y^{53} + \cdots - 10854y + 49$ |
| c_3, c_{10} | $y^{54} + 49y^{53} + \cdots - 26804y + 6241$ |
| c_4, c_8 | $y^{54} - 59y^{53} + \cdots - 3109428y + 77841$ |
| c_6 | $y^{54} + 4y^{53} + \cdots + 184125862y + 14737921$ |
| c_7, c_{11}, c_{12} | $y^{54} + 52y^{53} + \cdots - 1082y + 121$ |
| c_9 | $y^{54} + 55y^{53} + \cdots - 1762y + 1$ |

(vi) Complex Volumes and Cusp Shapes

| Solutions to I_1^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|-----------------------------|---------------------------------------|-----------------------|
| $u = -0.881137 + 0.332755I$ | | |
| $a = 0.54399 - 2.13485I$ | $-1.46224 + 9.75579I$ | $-6.92865 - 6.33368I$ |
| $b = -0.39987 - 1.44588I$ | | |
| $u = -0.881137 - 0.332755I$ | | |
| $a = 0.54399 + 2.13485I$ | $-1.46224 - 9.75579I$ | $-6.92865 + 6.33368I$ |
| $b = -0.39987 + 1.44588I$ | | |
| $u = -0.661598 + 0.849697I$ | | |
| $a = 0.701547 - 1.110120I$ | $0.12696 - 4.49631I$ | $-5.88481 + 2.41612I$ |
| $b = 0.308972 - 1.370990I$ | | |
| $u = -0.661598 - 0.849697I$ | | |
| $a = 0.701547 + 1.110120I$ | $0.12696 + 4.49631I$ | $-5.88481 - 2.41612I$ |
| $b = 0.308972 + 1.370990I$ | | |
| $u = 0.862493 + 0.086515I$ | | |
| $a = -0.43056 - 2.27902I$ | $-5.81257 - 2.56927I$ | $-8.23844 + 3.31387I$ |
| $b = 0.194758 - 1.252480I$ | | |
| $u = 0.862493 - 0.086515I$ | | |
| $a = -0.43056 + 2.27902I$ | $-5.81257 + 2.56927I$ | $-8.23844 - 3.31387I$ |
| $b = 0.194758 + 1.252480I$ | | |
| $u = 0.034093 + 1.169890I$ | | |
| $a = 0.694656 + 1.176320I$ | $-5.56210 - 0.29699I$ | 0 |
| $b = -0.07515 + 1.63362I$ | | |
| $u = 0.034093 - 1.169890I$ | | |
| $a = 0.694656 - 1.176320I$ | $-5.56210 + 0.29699I$ | 0 |
| $b = -0.07515 - 1.63362I$ | | |
| $u = -0.061275 + 1.202860I$ | | |
| $a = -1.171810 - 0.220502I$ | $4.62735 + 2.61524I$ | 0 |
| $b = 0.682474 + 0.808517I$ | | |
| $u = -0.061275 - 1.202860I$ | | |
| $a = -1.171810 + 0.220502I$ | $4.62735 - 2.61524I$ | 0 |
| $b = 0.682474 - 0.808517I$ | | |

| Solutions to I_1^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|-----------------------------|---------------------------------------|-------------------------|
| $u = 0.703654 + 0.331302I$ | | |
| $a = -0.449981 + 0.493740I$ | $3.98978 - 4.89959I$ | $-3.74361 + 5.61016I$ |
| $b = -0.953667 + 0.272713I$ | | |
| $u = 0.703654 - 0.331302I$ | | |
| $a = -0.449981 - 0.493740I$ | $3.98978 + 4.89959I$ | $-3.74361 - 5.61016I$ |
| $b = -0.953667 - 0.272713I$ | | |
| $u = 0.517589 + 0.579128I$ | | |
| $a = 0.432842 - 1.079910I$ | $4.91286 + 0.83348I$ | $-0.991616 + 0.466967I$ |
| $b = 0.686610 + 0.121861I$ | | |
| $u = 0.517589 - 0.579128I$ | | |
| $a = 0.432842 + 1.079910I$ | $4.91286 - 0.83348I$ | $-0.991616 - 0.466967I$ |
| $b = 0.686610 - 0.121861I$ | | |
| $u = -0.660016 + 0.406956I$ | | |
| $a = -1.06148 + 1.12929I$ | $-6.55286 + 2.04235I$ | $-7.25331 - 3.50673I$ |
| $b = 0.127395 + 1.287570I$ | | |
| $u = -0.660016 - 0.406956I$ | | |
| $a = -1.06148 - 1.12929I$ | $-6.55286 - 2.04235I$ | $-7.25331 + 3.50673I$ |
| $b = 0.127395 - 1.287570I$ | | |
| $u = -0.152086 + 1.230400I$ | | |
| $a = -2.21560 + 0.95171I$ | $4.59893 - 0.06572I$ | 0 |
| $b = -0.022858 + 1.045750I$ | | |
| $u = -0.152086 - 1.230400I$ | | |
| $a = -2.21560 - 0.95171I$ | $4.59893 + 0.06572I$ | 0 |
| $b = -0.022858 - 1.045750I$ | | |
| $u = 0.464769 + 1.178440I$ | | |
| $a = -0.444192 - 1.161940I$ | $-2.46094 - 2.14351I$ | 0 |
| $b = -0.045829 - 1.278020I$ | | |
| $u = 0.464769 - 1.178440I$ | | |
| $a = -0.444192 + 1.161940I$ | $-2.46094 + 2.14351I$ | 0 |
| $b = -0.045829 + 1.278020I$ | | |

| Solutions to I_1^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|-----------------------------|---------------------------------------|-----------------------|
| $u = -0.718867$ | | |
| $a = 0.234022$ | -2.00172 | -2.11670 |
| $b = 0.516900$ | | |
| $u = 0.618358 + 0.333206I$ | | |
| $a = 1.21587 + 2.22737I$ | $-7.42325 - 1.74416I$ | $-4.39978 + 3.82440I$ |
| $b = -0.07061 + 1.56445I$ | | |
| $u = 0.618358 - 0.333206I$ | | |
| $a = 1.21587 - 2.22737I$ | $-7.42325 + 1.74416I$ | $-4.39978 - 3.82440I$ |
| $b = -0.07061 - 1.56445I$ | | |
| $u = -0.300837 + 1.283390I$ | | |
| $a = 0.334898 - 0.433885I$ | $2.00821 + 3.67955I$ | 0 |
| $b = -0.533318 + 0.132363I$ | | |
| $u = -0.300837 - 1.283390I$ | | |
| $a = 0.334898 + 0.433885I$ | $2.00821 - 3.67955I$ | 0 |
| $b = -0.533318 - 0.132363I$ | | |
| $u = 0.154982 + 1.323550I$ | | |
| $a = 0.726837 - 0.314235I$ | $1.72966 - 2.23286I$ | 0 |
| $b = -0.614893 - 0.397811I$ | | |
| $u = 0.154982 - 1.323550I$ | | |
| $a = 0.726837 + 0.314235I$ | $1.72966 + 2.23286I$ | 0 |
| $b = -0.614893 + 0.397811I$ | | |
| $u = -0.094235 + 1.347490I$ | | |
| $a = -0.883756 + 0.145148I$ | $4.77656 + 2.05407I$ | 0 |
| $b = 0.620923 + 0.478168I$ | | |
| $u = -0.094235 - 1.347490I$ | | |
| $a = -0.883756 - 0.145148I$ | $4.77656 - 2.05407I$ | 0 |
| $b = 0.620923 - 0.478168I$ | | |
| $u = 0.376292 + 1.326680I$ | | |
| $a = 1.34754 + 1.24800I$ | $-1.38617 - 7.00293I$ | 0 |
| $b = -0.310469 + 1.232490I$ | | |

| Solutions to I_1^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|-----------------------------|---------------------------------------|-----------------------|
| $u = 0.376292 - 1.326680I$ | | |
| $a = 1.34754 - 1.24800I$ | $-1.38617 + 7.00293I$ | 0 |
| $b = -0.310469 - 1.232490I$ | | |
| $u = -0.229873 + 1.369020I$ | | |
| $a = 1.07939 - 1.70290I$ | $6.29624 + 5.50512I$ | 0 |
| $b = -0.34520 - 1.44114I$ | | |
| $u = -0.229873 - 1.369020I$ | | |
| $a = 1.07939 + 1.70290I$ | $6.29624 - 5.50512I$ | 0 |
| $b = -0.34520 + 1.44114I$ | | |
| $u = -0.201736 + 1.374670I$ | | |
| $a = -0.069667 - 0.195301I$ | $6.68190 + 1.90913I$ | 0 |
| $b = 0.77398 - 1.23082I$ | | |
| $u = -0.201736 - 1.374670I$ | | |
| $a = -0.069667 + 0.195301I$ | $6.68190 - 1.90913I$ | 0 |
| $b = 0.77398 + 1.23082I$ | | |
| $u = -0.569109 + 0.157556I$ | | |
| $a = 0.21924 + 4.04070I$ | $1.40834 + 2.55636I$ | $-7.88899 - 3.76167I$ |
| $b = 0.271278 + 1.251950I$ | | |
| $u = -0.569109 - 0.157556I$ | | |
| $a = 0.21924 - 4.04070I$ | $1.40834 - 2.55636I$ | $-7.88899 + 3.76167I$ |
| $b = 0.271278 - 1.251950I$ | | |
| $u = 0.26439 + 1.43158I$ | | |
| $a = -1.176170 - 0.713113I$ | $-1.76307 - 5.05086I$ | 0 |
| $b = 0.20131 - 1.51219I$ | | |
| $u = 0.26439 - 1.43158I$ | | |
| $a = -1.176170 + 0.713113I$ | $-1.76307 + 5.05086I$ | 0 |
| $b = 0.20131 + 1.51219I$ | | |
| $u = 0.27745 + 1.43289I$ | | |
| $a = -0.482110 - 0.560176I$ | $9.62901 - 8.48480I$ | 0 |
| $b = 1.128380 - 0.228809I$ | | |

| Solutions to I_1^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|-----------------------------|---------------------------------------|-----------------------|
| $u = 0.27745 - 1.43289I$ | | |
| $a = -0.482110 + 0.560176I$ | $9.62901 + 8.48480I$ | 0 |
| $b = 1.128380 + 0.228809I$ | | |
| $u = -0.501917 + 0.181939I$ | | |
| $a = -0.02666 + 1.76555I$ | $1.69160 - 0.71190I$ | $-8.63375 - 2.05858I$ |
| $b = -0.658368 + 1.057790I$ | | |
| $u = -0.501917 - 0.181939I$ | | |
| $a = -0.02666 - 1.76555I$ | $1.69160 + 0.71190I$ | $-8.63375 + 2.05858I$ |
| $b = -0.658368 - 1.057790I$ | | |
| $u = -0.27382 + 1.46493I$ | | |
| $a = 1.043680 - 0.263678I$ | $-0.53926 + 5.52355I$ | 0 |
| $b = -0.267903 - 1.143590I$ | | |
| $u = -0.27382 - 1.46493I$ | | |
| $a = 1.043680 + 0.263678I$ | $-0.53926 - 5.52355I$ | 0 |
| $b = -0.267903 + 1.143590I$ | | |
| $u = -0.35422 + 1.45911I$ | | |
| $a = -1.24409 + 1.06931I$ | $4.2552 + 14.2219I$ | 0 |
| $b = 0.48568 + 1.47325I$ | | |
| $u = -0.35422 - 1.45911I$ | | |
| $a = -1.24409 - 1.06931I$ | $4.2552 - 14.2219I$ | 0 |
| $b = 0.48568 - 1.47325I$ | | |
| $u = 0.14172 + 1.50342I$ | | |
| $a = 0.239640 + 0.749072I$ | $11.72290 - 1.51265I$ | 0 |
| $b = -0.722793 + 0.242786I$ | | |
| $u = 0.14172 - 1.50342I$ | | |
| $a = 0.239640 - 0.749072I$ | $11.72290 + 1.51265I$ | 0 |
| $b = -0.722793 - 0.242786I$ | | |
| $u = 0.475960$ | | |
| $a = -1.20947$ | -2.46570 | 2.76380 |
| $b = 0.452125$ | | |

| Solutions to I_1^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|-----------------------------|---------------------------------------|-----------------------|
| $u = -0.254809 + 0.273319I$ | | |
| $a = 0.778345 - 0.766727I$ | $-0.216037 + 0.828510I$ | $-5.24914 - 8.37217I$ |
| $b = -0.196995 - 0.477015I$ | | |
| $u = -0.254809 - 0.273319I$ | | |
| $a = 0.778345 + 0.766727I$ | $-0.216037 - 0.828510I$ | $-5.24914 + 8.37217I$ |
| $b = -0.196995 + 0.477015I$ | | |
| $u = -0.09766 + 1.65580I$ | | |
| $a = -0.169231 + 0.249301I$ | $8.90251 - 1.85529I$ | 0 |
| $b = -0.248336 + 1.196290I$ | | |
| $u = -0.09766 - 1.65580I$ | | |
| $a = -0.169231 - 0.249301I$ | $8.90251 + 1.85529I$ | 0 |
| $b = -0.248336 - 1.196290I$ | | |

$$I_2^u = \langle -u^{14} - 7u^{12} + \dots + b - 3u, -u^{14} + 2u^{13} + \dots + a + 4, u^{15} - u^{14} + \dots + 7u^2 + 1 \rangle$$

(i) Arc colorings

$$a_8 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

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

$$a_{12} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^2 + 1 \\ u^4 + 2u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} u^{14} - 2u^{13} + \dots + 5u - 4 \\ u^{14} + 7u^{12} + 18u^{10} - u^9 + 19u^8 - 5u^7 + 4u^6 - 7u^5 - 3u^4 - u^3 + u^2 + 3u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} u^3 + 2u \\ u^3 + u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -u^{13} + u^{12} + \dots + 4u - 4 \\ u^{14} + 7u^{12} + 18u^{10} - u^9 + 19u^8 - 5u^7 + 4u^6 - 7u^5 - 2u^4 - u^3 + 3u^2 + 3u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u^{14} - 2u^{13} + \dots + 10u - 1 \\ -2u^{13} + 2u^{12} + \dots + 2u - 1 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -2u^{14} + 2u^{13} + \dots - 11u + 1 \\ u^{13} - u^{12} + \dots + 6u^2 - 2u \end{pmatrix}$$

$$a_4 = \begin{pmatrix} u^{14} - 2u^{13} + \dots + 10u - 1 \\ -u^{13} + u^{12} + \dots - 5u^2 + u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -2u^{14} + 2u^{13} + \dots - 14u + 1 \\ u^{13} - u^{12} + \dots + 6u^2 - u \end{pmatrix}$$

(ii) Obstruction class = 1

$$(iii) \text{ Cusp Shapes} = -3u^{14} + 6u^{13} - 24u^{12} + 42u^{11} - 71u^{10} + 108u^9 - 89u^8 + 115u^7 - 33u^6 + 25u^5 + 9u^4 - 22u^3 - 4u^2 + 2u - 3$$

(iv) u-Polynomials at the component

| Crossings | u-Polynomials at each crossing |
|------------------|---|
| c_1 | $u^{15} + 3u^{13} + \cdots - 3u - 1$ |
| c_2 | $u^{15} + 3u^{14} + \cdots - 3u^2 - 1$ |
| c_3 | $u^{15} + 9u^{13} + \cdots - 4u^2 + 1$ |
| c_4 | $u^{15} - 2u^{14} + \cdots + 10u^2 - 1$ |
| c_5 | $u^{15} - 3u^{14} + \cdots + 3u^2 + 1$ |
| c_6 | $u^{15} - u^{14} + \cdots + 2u - 1$ |
| c_7 | $u^{15} + u^{14} + \cdots - 7u^2 - 1$ |
| c_8 | $u^{15} + 2u^{14} + \cdots - 10u^2 + 1$ |
| c_9 | $u^{15} + 6u^{13} + \cdots + 3u^2 - 1$ |
| c_{10} | $u^{15} + 9u^{13} + \cdots + 4u^2 - 1$ |
| c_{11}, c_{12} | $u^{15} - u^{14} + \cdots + 7u^2 + 1$ |

(v) Riley Polynomials at the component

| Crossings | Riley Polynomials at each crossing |
|-----------------------|--|
| c_1 | $y^{15} + 6y^{14} + \cdots + 9y - 1$ |
| c_2, c_5 | $y^{15} - 9y^{14} + \cdots - 6y - 1$ |
| c_3, c_{10} | $y^{15} + 18y^{14} + \cdots + 8y - 1$ |
| c_4, c_8 | $y^{15} - 6y^{14} + \cdots + 20y - 1$ |
| c_6 | $y^{15} + 5y^{14} + \cdots - 18y - 1$ |
| c_7, c_{11}, c_{12} | $y^{15} + 17y^{14} + \cdots - 14y - 1$ |
| c_9 | $y^{15} + 12y^{14} + \cdots + 6y - 1$ |

(vi) Complex Volumes and Cusp Shapes

| Solutions to I_2^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|-----------------------------|---------------------------------------|------------------------|
| $u = 0.203897 + 1.182510I$ | | |
| $a = -0.354319 - 1.221590I$ | $-5.71687 - 1.52845I$ | $-6.08651 + 4.82612I$ |
| $b = -0.08173 - 1.61035I$ | | |
| $u = 0.203897 - 1.182510I$ | | |
| $a = -0.354319 + 1.221590I$ | $-5.71687 + 1.52845I$ | $-6.08651 - 4.82612I$ |
| $b = -0.08173 + 1.61035I$ | | |
| $u = -0.033799 + 1.247150I$ | | |
| $a = -1.91300 + 0.07166I$ | $5.47176 + 1.87806I$ | $1.95765 - 1.95299I$ |
| $b = 0.496329 + 0.968310I$ | | |
| $u = -0.033799 - 1.247150I$ | | |
| $a = -1.91300 - 0.07166I$ | $5.47176 - 1.87806I$ | $1.95765 + 1.95299I$ |
| $b = 0.496329 - 0.968310I$ | | |
| $u = 0.695741 + 0.257174I$ | | |
| $a = -1.14939 - 2.10113I$ | $-8.37469 - 1.56439I$ | $-13.79063 + 1.52850I$ |
| $b = 0.10467 - 1.48695I$ | | |
| $u = 0.695741 - 0.257174I$ | | |
| $a = -1.14939 + 2.10113I$ | $-8.37469 + 1.56439I$ | $-13.79063 - 1.52850I$ |
| $b = 0.10467 + 1.48695I$ | | |
| $u = -0.270202 + 1.313250I$ | | |
| $a = 0.494443 + 0.091423I$ | $1.19519 + 3.29133I$ | $-5.91213 - 2.50289I$ |
| $b = -0.379327 + 0.243587I$ | | |
| $u = -0.270202 - 1.313250I$ | | |
| $a = 0.494443 - 0.091423I$ | $1.19519 - 3.29133I$ | $-5.91213 + 2.50289I$ |
| $b = -0.379327 - 0.243587I$ | | |
| $u = -0.641026$ | | |
| $a = -0.683428$ | -2.98177 | -14.5200 |
| $b = 0.308804$ | | |
| $u = 0.33142 + 1.43193I$ | | |
| $a = 1.189210 + 0.727838I$ | $-2.94306 - 5.41071I$ | $-8.48695 + 4.16478I$ |
| $b = -0.179540 + 1.396510I$ | | |

| Solutions to I_2^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|-----------------------------|---------------------------------------|-----------------------|
| $u = 0.33142 - 1.43193I$ | | |
| $a = 1.189210 - 0.727838I$ | $-2.94306 + 5.41071I$ | $-8.48695 - 4.16478I$ |
| $b = -0.179540 - 1.396510I$ | | |
| $u = -0.02900 + 1.58206I$ | | |
| $a = 0.355078 - 0.312207I$ | $9.41454 - 1.04650I$ | $-0.68107 - 1.40813I$ |
| $b = 0.266182 - 0.998489I$ | | |
| $u = -0.02900 - 1.58206I$ | | |
| $a = 0.355078 + 0.312207I$ | $9.41454 + 1.04650I$ | $-0.68107 + 1.40813I$ |
| $b = 0.266182 + 0.998489I$ | | |
| $u = -0.077540 + 0.352277I$ | | |
| $a = -3.28030 + 1.82680I$ | $2.44402 - 1.47765I$ | $-3.24037 + 1.97101I$ |
| $b = -0.380983 + 0.977431I$ | | |
| $u = -0.077540 - 0.352277I$ | | |
| $a = -3.28030 - 1.82680I$ | $2.44402 + 1.47765I$ | $-3.24037 - 1.97101I$ |
| $b = -0.380983 - 0.977431I$ | | |

III. u-Polynomials

| Crossings | u-Polynomials at each crossing |
|------------------|--|
| c_1 | $(u^{15} + 3u^{13} + \dots - 3u - 1)(u^{54} - u^{53} + \dots + 161u - 7)$ |
| c_2 | $(u^{15} + 3u^{14} + \dots - 3u^2 - 1)(u^{54} + 4u^{53} + \dots + 100u - 7)$ |
| c_3 | $(u^{15} + 9u^{13} + \dots - 4u^2 + 1)(u^{54} + u^{53} + \dots - 24u + 79)$ |
| c_4 | $(u^{15} - 2u^{14} + \dots + 10u^2 - 1)(u^{54} - 3u^{53} + \dots - 1056u + 279)$ |
| c_5 | $(u^{15} - 3u^{14} + \dots + 3u^2 + 1)(u^{54} + 4u^{53} + \dots + 100u - 7)$ |
| c_6 | $(u^{15} - u^{14} + \dots + 2u - 1)(u^{54} - 2u^{53} + \dots - 9058u - 3839)$ |
| c_7 | $(u^{15} + u^{14} + \dots - 7u^2 - 1)(u^{54} + 2u^{53} + \dots - 68u - 11)$ |
| c_8 | $(u^{15} + 2u^{14} + \dots - 10u^2 + 1)(u^{54} - 3u^{53} + \dots - 1056u + 279)$ |
| c_9 | $(u^{15} + 6u^{13} + \dots + 3u^2 - 1)(u^{54} + u^{53} + \dots + 34u - 1)$ |
| c_{10} | $(u^{15} + 9u^{13} + \dots + 4u^2 - 1)(u^{54} + u^{53} + \dots - 24u + 79)$ |
| c_{11}, c_{12} | $(u^{15} - u^{14} + \dots + 7u^2 + 1)(u^{54} + 2u^{53} + \dots - 68u - 11)$ |

IV. Riley Polynomials

| Crossings | Riley Polynomials at each crossing |
|-----------------------|--|
| c_1 | $(y^{15} + 6y^{14} + \dots + 9y - 1)(y^{54} + 53y^{53} + \dots - 8141y + 49)$ |
| c_2, c_5 | $(y^{15} - 9y^{14} + \dots - 6y - 1)(y^{54} - 22y^{53} + \dots - 10854y + 49)$ |
| c_3, c_{10} | $(y^{15} + 18y^{14} + \dots + 8y - 1)(y^{54} + 49y^{53} + \dots - 26804y + 6241)$ |
| c_4, c_8 | $(y^{15} - 6y^{14} + \dots + 20y - 1)(y^{54} - 59y^{53} + \dots - 3109428y + 77841)$ |
| c_6 | $(y^{15} + 5y^{14} + \dots - 18y - 1)$ $\cdot (y^{54} + 4y^{53} + \dots + 184125862y + 14737921)$ |
| c_7, c_{11}, c_{12} | $(y^{15} + 17y^{14} + \dots - 14y - 1)(y^{54} + 52y^{53} + \dots - 1082y + 121)$ |
| c_9 | $(y^{15} + 12y^{14} + \dots + 6y - 1)(y^{54} + 55y^{53} + \dots - 1762y + 1)$ |