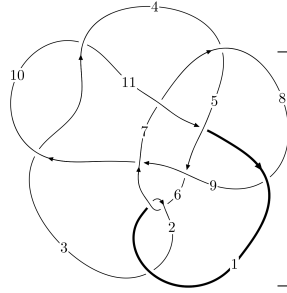
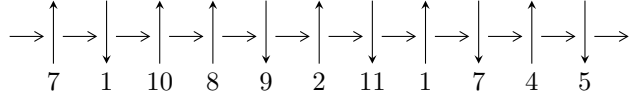


11n₁₃₀ (K11n₁₃₀)



A knot diagram¹

Linearized knot diagram



Solving Sequence

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

Ideals for irreducible components² of X_{par}

$$I_1^u = \langle -2.64498 \times 10^{39} u^{36} - 5.83142 \times 10^{39} u^{35} + \dots + 9.36297 \times 10^{38} b - 1.79289 \times 10^{40}, \\ 8.32208 \times 10^{40} u^{36} + 2.24302 \times 10^{41} u^{35} + \dots + 1.02993 \times 10^{40} a + 1.49267 \times 10^{42}, u^{37} + 2u^{36} + \dots - 8u - 1 \rangle$$

$$I_2^u = \langle 5u^{10} + 19u^9 + 8u^8 + 9u^7 + 20u^6 + 86u^5 + 142u^4 + 71u^3 - 71u^2 + 67b + 39u + 64, \\ 5u^{10} - 48u^9 + 8u^8 + 76u^7 - 47u^6 - 249u^5 + 75u^4 + 138u^3 - 4u^2 + 67a - 95u + 131, \\ u^{11} + u^{10} - u^9 + 7u^7 + 6u^6 - u^5 - u^4 + 5u^3 + 2u^2 - u - 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 48 representations.

¹The 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>).

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

$$\text{I. } I_1^u = \langle -2.64 \times 10^{39} u^{36} - 5.83 \times 10^{39} u^{35} + \dots + 9.36 \times 10^{38} b - 1.79 \times 10^{40}, 8.32 \times 10^{40} u^{36} + 2.24 \times 10^{41} u^{35} + \dots + 1.03 \times 10^{40} a + 1.49 \times 10^{42}, u^{37} + 2u^{36} + \dots - 8u - 11 \rangle$$

(i) Arc colorings

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

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

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

$$a_8 = \begin{pmatrix} -8.08027u^{36} - 21.7785u^{35} + \dots - 344.393u - 144.929 \\ 2.82494u^{36} + 6.22818u^{35} + \dots + 78.1053u + 19.1487 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -1.86142u^{36} - 6.80771u^{35} + \dots - 132.462u - 63.9835 \\ 5.72773u^{36} + 12.8467u^{35} + \dots + 166.777u + 47.0123 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -14.5710u^{36} - 35.2438u^{35} + \dots - 475.357u - 170.402 \\ -4.84473u^{36} - 12.7993u^{35} + \dots - 193.507u - 68.6348 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -5.25533u^{36} - 15.5503u^{35} + \dots - 266.288u - 125.781 \\ 2.82494u^{36} + 6.22818u^{35} + \dots + 78.1053u + 19.1487 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 7.55117u^{36} + 20.4537u^{35} + \dots + 318.954u + 177.930 \\ 4.57906u^{36} + 12.5897u^{35} + \dots + 193.139u + 107.947 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 7.22065u^{36} + 17.5684u^{35} + \dots + 251.689u + 128.847 \\ 4.47610u^{36} + 11.7558u^{35} + \dots + 171.709u + 83.4806 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -9.28201u^{36} - 21.1993u^{35} + \dots - 266.287u - 108.443 \\ 0.126287u^{36} + 2.51101u^{35} + \dots + 72.2964u + 34.4863 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 2.42894u^{36} + 8.72585u^{35} + \dots + 164.941u + 113.830 \\ 2.47797u^{36} + 5.69993u^{35} + \dots + 64.9436u + 35.7552 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 2.42894u^{36} + 8.72585u^{35} + \dots + 164.941u + 113.830 \\ 2.47797u^{36} + 5.69993u^{35} + \dots + 64.9436u + 35.7552 \end{pmatrix}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes = $-28.2238u^{36} - 73.9995u^{35} + \dots - 1024.01u - 467.975$

(iv) u-Polynomials at the component

| Crossings | u-Polynomials at each crossing |
|---------------|--|
| c_1, c_6 | $u^{37} + 24u^{35} + \dots - 4u + 1$ |
| c_2 | $u^{37} + 48u^{36} + \dots + 8u - 1$ |
| c_3, c_{10} | $u^{37} - u^{36} + \dots + 6u + 1$ |
| c_4 | $u^{37} - 3u^{36} + \dots + 12u + 1$ |
| c_5 | $u^{37} - u^{36} + \dots + 1746u + 367$ |
| c_7 | $u^{37} + 4u^{36} + \dots - 8u + 1$ |
| c_8 | $u^{37} + 10u^{35} + \dots - 75u + 23$ |
| c_9 | $u^{37} + 6u^{36} + \dots - 6703u + 583$ |
| c_{11} | $u^{37} + 2u^{36} + \dots - 8u - 11$ |

(v) Riley Polynomials at the component

| Crossings | Riley Polynomials at each crossing |
|---------------|---|
| c_1, c_6 | $y^{37} + 48y^{36} + \dots + 8y - 1$ |
| c_2 | $y^{37} - 112y^{36} + \dots - 100y - 1$ |
| c_3, c_{10} | $y^{37} - 17y^{36} + \dots + 22y - 1$ |
| c_4 | $y^{37} - 3y^{36} + \dots + 24y - 1$ |
| c_5 | $y^{37} - 53y^{36} + \dots + 2094316y - 134689$ |
| c_7 | $y^{37} + 2y^{36} + \dots - 56y^2 - 1$ |
| c_8 | $y^{37} + 20y^{36} + \dots - 44975y - 529$ |
| c_9 | $y^{37} - 66y^{36} + \dots + 4068905y - 339889$ |
| c_{11} | $y^{37} - 10y^{36} + \dots + 2308y - 121$ |

(vi) Complex Volumes and Cusp Shapes

| Solutions to I_1^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|--|---------------------------------------|-----------------------|
| $u = -0.601373 + 0.797904I$ $a = 0.100319 - 0.818260I$ $b = -0.125544 + 0.666416I$ | $0.33153 + 1.56965I$ | $1.84729 - 2.87829I$ |
| $u = -0.601373 - 0.797904I$ $a = 0.100319 + 0.818260I$ $b = -0.125544 - 0.666416I$ | $0.33153 - 1.56965I$ | $1.84729 + 2.87829I$ |
| $u = -0.756589 + 0.697163I$ $a = 0.048994 - 0.966661I$ $b = -0.592884 + 1.189630I$ | $0.52746 + 2.09006I$ | $0.36189 - 3.60216I$ |
| $u = -0.756589 - 0.697163I$ $a = 0.048994 + 0.966661I$ $b = -0.592884 - 1.189630I$ | $0.52746 - 2.09006I$ | $0.36189 + 3.60216I$ |
| $u = 0.746755 + 0.717340I$ $a = 0.24852 - 1.52698I$ $b = 0.832075 + 0.932954I$ | $3.60755 - 4.86664I$ | $5.83345 + 5.56346I$ |
| $u = 0.746755 - 0.717340I$ $a = 0.24852 + 1.52698I$ $b = 0.832075 - 0.932954I$ | $3.60755 + 4.86664I$ | $5.83345 - 5.56346I$ |
| $u = -0.850079 + 0.415638I$ $a = 0.200244 + 0.592775I$ $b = -1.43302 - 1.13498I$ | $-9.44422 + 4.54412I$ | $-2.91144 - 6.06217I$ |
| $u = -0.850079 - 0.415638I$ $a = 0.200244 - 0.592775I$ $b = -1.43302 + 1.13498I$ | $-9.44422 - 4.54412I$ | $-2.91144 + 6.06217I$ |
| $u = 0.833991 + 0.353566I$ $a = 0.238282 + 1.378690I$ $b = 0.48049 - 1.49168I$ | $-9.78588 + 0.61235I$ | $-3.21523 + 0.70893I$ |
| $u = 0.833991 - 0.353566I$ $a = 0.238282 - 1.378690I$ $b = 0.48049 + 1.49168I$ | $-9.78588 - 0.61235I$ | $-3.21523 - 0.70893I$ |

| Solutions to I_1^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|-----------------------------|---------------------------------------|-----------------------|
| $u = -0.820454 + 0.302238I$ | | |
| $a = 0.649750 - 0.760838I$ | $-0.44492 + 2.47536I$ | $-1.10953 - 5.85952I$ |
| $b = 0.367432 - 0.280099I$ | | |
| $u = -0.820454 - 0.302238I$ | | |
| $a = 0.649750 + 0.760838I$ | $-0.44492 - 2.47536I$ | $-1.10953 + 5.85952I$ |
| $b = 0.367432 + 0.280099I$ | | |
| $u = -0.709146 + 0.450731I$ | | |
| $a = -2.09178 - 0.67084I$ | $-8.92085 - 1.02999I$ | $-3.37249 - 2.08147I$ |
| $b = -1.020550 + 0.314178I$ | | |
| $u = -0.709146 - 0.450731I$ | | |
| $a = -2.09178 + 0.67084I$ | $-8.92085 + 1.02999I$ | $-3.37249 + 2.08147I$ |
| $b = -1.020550 - 0.314178I$ | | |
| $u = 0.698049 + 0.369328I$ | | |
| $a = 2.57924 + 1.16241I$ | $-9.27666 - 3.59094I$ | $-4.07946 + 9.46699I$ |
| $b = 0.291961 + 0.320467I$ | | |
| $u = 0.698049 - 0.369328I$ | | |
| $a = 2.57924 - 1.16241I$ | $-9.27666 + 3.59094I$ | $-4.07946 - 9.46699I$ |
| $b = 0.291961 - 0.320467I$ | | |
| $u = 0.518070 + 1.102540I$ | | |
| $a = 0.461824 - 0.300576I$ | $1.17632 + 1.49794I$ | $4.03696 - 6.33192I$ |
| $b = -0.066504 + 0.656363I$ | | |
| $u = 0.518070 - 1.102540I$ | | |
| $a = 0.461824 + 0.300576I$ | $1.17632 - 1.49794I$ | $4.03696 + 6.33192I$ |
| $b = -0.066504 - 0.656363I$ | | |
| $u = 1.223990 + 0.280649I$ | | |
| $a = -0.445468 + 0.076745I$ | $2.40459 + 0.03773I$ | $9.51019 + 3.78756I$ |
| $b = 0.380103 - 0.218592I$ | | |
| $u = 1.223990 - 0.280649I$ | | |
| $a = -0.445468 - 0.076745I$ | $2.40459 - 0.03773I$ | $9.51019 - 3.78756I$ |
| $b = 0.380103 + 0.218592I$ | | |

| Solutions to I_1^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|--|---------------------------------------|-----------------------|
| $u = 0.658844$ $a = -1.02220$ $b = -1.22072$ | -2.54226 | -10.2460 |
| $u = -0.599605 + 0.263744I$ $a = 0.44406 + 1.78040I$ $b = 0.98175 - 1.24775I$ | $1.39846 + 3.05009I$ | $-3.20830 - 2.79125I$ |
| $u = -0.599605 - 0.263744I$ $a = 0.44406 - 1.78040I$ $b = 0.98175 + 1.24775I$ | $1.39846 - 3.05009I$ | $-3.20830 + 2.79125I$ |
| $u = 0.649301 + 0.015184I$ $a = -0.789959 + 0.549138I$ $b = -1.202670 - 0.218143I$ | $-2.53052 - 0.01603I$ | $-8.01901 - 0.30181I$ |
| $u = 0.649301 - 0.015184I$ $a = -0.789959 - 0.549138I$ $b = -1.202670 + 0.218143I$ | $-2.53052 + 0.01603I$ | $-8.01901 + 0.30181I$ |
| $u = 1.070020 + 0.832774I$ $a = -0.089943 + 0.968954I$ $b = -1.00403 - 1.22232I$ | $-0.20513 - 8.27502I$ | $0. + 7.41109I$ |
| $u = 1.070020 - 0.832774I$ $a = -0.089943 - 0.968954I$ $b = -1.00403 + 1.22232I$ | $-0.20513 + 8.27502I$ | $0. - 7.41109I$ |
| $u = -1.026120 + 0.886327I$ $a = 0.287552 + 1.044070I$ $b = 0.813618 - 0.738930I$ | $-0.93685 + 5.16140I$ | $0. - 5.99788I$ |
| $u = -1.026120 - 0.886327I$ $a = 0.287552 - 1.044070I$ $b = 0.813618 + 0.738930I$ | $-0.93685 - 5.16140I$ | $0. + 5.99788I$ |
| $u = -1.23107 + 0.72507I$ $a = 0.147341 + 0.177104I$ $b = 0.605243 - 0.552824I$ | $-0.70258 + 2.95006I$ | 0 |

| Solutions to I_1^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|-----------------------------|---------------------------------------|------------|
| $u = -1.23107 - 0.72507I$ | | |
| $a = 0.147341 - 0.177104I$ | $-0.70258 - 2.95006I$ | 0 |
| $b = 0.605243 + 0.552824I$ | | |
| $u = -1.24432 + 0.89792I$ | | |
| $a = -0.179117 - 1.081050I$ | $-9.0036 + 13.3479I$ | 0 |
| $b = -1.10074 + 1.15043I$ | | |
| $u = -1.24432 - 0.89792I$ | | |
| $a = -0.179117 + 1.081050I$ | $-9.0036 - 13.3479I$ | 0 |
| $b = -1.10074 - 1.15043I$ | | |
| $u = -0.64511 + 1.54806I$ | | |
| $a = 0.463658 + 0.370863I$ | $-6.92057 - 5.26122I$ | 0 |
| $b = -0.511435 - 0.791669I$ | | |
| $u = -0.64511 - 1.54806I$ | | |
| $a = 0.463658 - 0.370863I$ | $-6.92057 + 5.26122I$ | 0 |
| $b = -0.511435 + 0.791669I$ | | |
| $u = 1.41428 + 1.03844I$ | | |
| $a = -0.080599 - 0.633894I$ | $-12.51050 - 5.12964I$ | 0 |
| $b = 0.915060 + 0.595859I$ | | |
| $u = 1.41428 - 1.03844I$ | | |
| $a = -0.080599 + 0.633894I$ | $-12.51050 + 5.12964I$ | 0 |
| $b = 0.915060 - 0.595859I$ | | |

$$\langle 5u^{10} + 19u^9 + \dots + 67b + 64, 5u^{10} - 48u^9 + \dots + 67a + 131, u^{11} + u^{10} + \dots - u - 1 \rangle$$

II. $I_2^u =$

(i) Arc colorings

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

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

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

$$a_8 = \begin{pmatrix} -0.0746269u^{10} + 0.716418u^9 + \dots + 1.41791u - 1.95522 \\ -0.0746269u^{10} - 0.283582u^9 + \dots - 0.582090u - 0.955224 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.835821u^{10} + 0.776119u^9 + \dots + 0.119403u - 3.70149 \\ 0.343284u^{10} + 0.104478u^9 + \dots - 0.522388u - 1.80597 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 1.47761u^{10} + 0.0149254u^9 + \dots - 4.07463u - 0.686567 \\ -0.850746u^{10} - 0.432836u^9 + \dots - 0.835821u + 0.910448 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.149254u^{10} + 0.432836u^9 + \dots + 0.835821u - 2.91045 \\ -0.0746269u^{10} - 0.283582u^9 + \dots - 0.582090u - 0.955224 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 2.74627u^{10} + 0.835821u^9 + \dots - 4.17910u - 2.44776 \\ 0.791045u^{10} - 0.194030u^9 + \dots - 2.02985u - 0.0746269 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 2.80597u^{10} + 1.46269u^9 + \dots - 1.31343u - 4.28358 \\ 0.179104u^{10} - 0.119403u^9 + \dots - 1.40299u + 0.492537 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -1.37313u^{10} - 2.41791u^9 + \dots - 6.91045u + 4.22388 \\ -0.820896u^{10} - 1.11940u^9 + \dots - 2.40299u + 1.49254 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.611940u^{10} - 0.0746269u^9 + \dots - 3.62687u + 2.43284 \\ -0.567164u^{10} + 0.0447761u^9 + \dots + 0.776119u + 0.940299 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.611940u^{10} - 0.0746269u^9 + \dots - 3.62687u + 2.43284 \\ -0.567164u^{10} + 0.0447761u^9 + \dots + 0.776119u + 0.940299 \end{pmatrix}$$

(ii) Obstruction class = 1

(iii) Cusp Shapes

$$= \frac{76}{67}u^{10} + \frac{61}{67}u^9 + \frac{68}{67}u^8 - \frac{24}{67}u^7 + \frac{371}{67}u^6 + \frac{731}{67}u^5 + \frac{470}{67}u^4 - \frac{167}{67}u^3 + \frac{569}{67}u^2 + \frac{700}{67}u + \frac{209}{67}$$

(iv) u-Polynomials at the component

| Crossings | u-Polynomials at each crossing |
|-----------|---|
| c_1 | $u^{11} + u^{10} + \dots + 3u + 1$ |
| c_2 | $u^{11} + 11u^{10} + \dots - 3u - 1$ |
| c_3 | $u^{11} - 5u^9 - 2u^8 + 11u^7 + 9u^6 - 12u^5 - 15u^4 + 5u^3 + 11u^2 + u - 3$ |
| c_4 | $u^{11} - 2u^9 - 3u^8 + 7u^7 + 6u^6 - 3u^5 - 12u^4 + 3u^3 + 6u^2 - u - 1$ |
| c_5 | $u^{11} - 3u^9 + 3u^8 - u^7 - 5u^6 + 12u^5 - 15u^4 + 13u^3 - 8u^2 + 3u - 1$ |
| c_6 | $u^{11} - u^{10} + \dots + 3u - 1$ |
| c_7 | $u^{11} + u^{10} + u^9 - 3u^8 - u^7 - 3u^6 + 2u^5 - 5u^4 - 2u^2 + u - 1$ |
| c_8 | $u^{11} - u^{10} + 2u^9 + 3u^8 - 4u^7 + 4u^6 + 5u^5 - 8u^4 + u^3 + 5u^2 - 4u - 3$ |
| c_9 | $u^{11} + 7u^{10} + \dots + 8u + 1$ |
| c_{10} | $u^{11} - 5u^9 + 2u^8 + 11u^7 - 9u^6 - 12u^5 + 15u^4 + 5u^3 - 11u^2 + u + 3$ |
| c_{11} | $u^{11} + u^{10} - u^9 + 7u^7 + 6u^6 - u^5 - u^4 + 5u^3 + 2u^2 - u - 1$ |

(v) Riley Polynomials at the component

| Crossings | Riley Polynomials at each crossing |
|---------------|---------------------------------------|
| c_1, c_6 | $y^{11} + 11y^{10} + \dots - 3y - 1$ |
| c_2 | $y^{11} - 17y^{10} + \dots + y - 1$ |
| c_3, c_{10} | $y^{11} - 10y^{10} + \dots + 67y - 9$ |
| c_4 | $y^{11} - 4y^{10} + \dots + 13y - 1$ |
| c_5 | $y^{11} - 6y^{10} + \dots - 7y - 1$ |
| c_7 | $y^{11} + y^{10} + \dots - 3y - 1$ |
| c_8 | $y^{11} + 3y^{10} + \dots + 46y - 9$ |
| c_9 | $y^{11} - 7y^{10} + \dots + 2y - 1$ |
| c_{11} | $y^{11} - 3y^{10} + \dots + 5y - 1$ |

(vi) Complex Volumes and Cusp Shapes

| Solutions to I_2^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|--|---------------------------------------|-----------------------|
| $u = 0.575448 + 0.685098I$ $a = -0.28148 - 1.48144I$ $b = 0.594339 + 1.201490I$ | $2.53579 - 3.27380I$ | $4.40962 + 3.96450I$ |
| $u = 0.575448 - 0.685098I$ $a = -0.28148 + 1.48144I$ $b = 0.594339 - 1.201490I$ | $2.53579 + 3.27380I$ | $4.40962 - 3.96450I$ |
| $u = -0.931149 + 0.725260I$ $a = 0.483405 + 1.197060I$ $b = 1.05505 - 1.01633I$ | $2.26337 + 5.93413I$ | $0.97958 - 6.14906I$ |
| $u = -0.931149 - 0.725260I$ $a = 0.483405 - 1.197060I$ $b = 1.05505 + 1.01633I$ | $2.26337 - 5.93413I$ | $0.97958 + 6.14906I$ |
| $u = -1.132080 + 0.689250I$ $a = -0.322254 - 0.191452I$ $b = 0.468519 + 0.646535I$ | $2.10419 - 0.48851I$ | $1.91182 + 5.66309I$ |
| $u = -1.132080 - 0.689250I$ $a = -0.322254 + 0.191452I$ $b = 0.468519 - 0.646535I$ | $2.10419 + 0.48851I$ | $1.91182 - 5.66309I$ |
| $u = -0.470761 + 0.380594I$ $a = -2.42373 + 0.15412I$ $b = -0.537257 - 0.676495I$ | $-9.12876 + 2.79567I$ | $-1.55052 + 0.06651I$ |
| $u = -0.470761 - 0.380594I$ $a = -2.42373 - 0.15412I$ $b = -0.537257 + 0.676495I$ | $-9.12876 - 2.79567I$ | $-1.55052 - 0.06651I$ |
| $u = 0.547799$ $a = -1.41244$ $b = -1.39693$ | -2.17580 | 12.3110 |
| $u = 1.18464 + 1.06749I$ $a = -0.249721 + 0.403821I$ $b = -0.382185 - 0.494093I$ | $0.02345 - 3.01225I$ | $6.59416 + 5.79825I$ |

| Solutions to I_2^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|-----------------------------|---------------------------------------|----------------------|
| $u = 1.18464 - 1.06749I$ | | |
| $a = -0.249721 - 0.403821I$ | $0.02345 + 3.01225I$ | $6.59416 - 5.79825I$ |
| $b = -0.382185 + 0.494093I$ | | |

III. u-Polynomials

| Crossings | u-Polynomials at each crossing |
|-----------|---|
| c_1 | $(u^{11} + u^{10} + \dots + 3u + 1)(u^{37} + 24u^{35} + \dots - 4u + 1)$ |
| c_2 | $(u^{11} + 11u^{10} + \dots - 3u - 1)(u^{37} + 48u^{36} + \dots + 8u - 1)$ |
| c_3 | $(u^{11} - 5u^9 - 2u^8 + 11u^7 + 9u^6 - 12u^5 - 15u^4 + 5u^3 + 11u^2 + u - 3)$ $\cdot (u^{37} - u^{36} + \dots + 6u + 1)$ |
| c_4 | $(u^{11} - 2u^9 - 3u^8 + 7u^7 + 6u^6 - 3u^5 - 12u^4 + 3u^3 + 6u^2 - u - 1)$ $\cdot (u^{37} - 3u^{36} + \dots + 12u + 1)$ |
| c_5 | $(u^{11} - 3u^9 + 3u^8 - u^7 - 5u^6 + 12u^5 - 15u^4 + 13u^3 - 8u^2 + 3u - 1)$ $\cdot (u^{37} - u^{36} + \dots + 1746u + 367)$ |
| c_6 | $(u^{11} - u^{10} + \dots + 3u - 1)(u^{37} + 24u^{35} + \dots - 4u + 1)$ |
| c_7 | $(u^{11} + u^{10} + u^9 - 3u^8 - u^7 - 3u^6 + 2u^5 - 5u^4 - 2u^2 + u - 1)$ $\cdot (u^{37} + 4u^{36} + \dots - 8u + 1)$ |
| c_8 | $(u^{11} - u^{10} + 2u^9 + 3u^8 - 4u^7 + 4u^6 + 5u^5 - 8u^4 + u^3 + 5u^2 - 4u - 3)$ $\cdot (u^{37} + 10u^{35} + \dots - 75u + 23)$ |
| c_9 | $(u^{11} + 7u^{10} + \dots + 8u + 1)(u^{37} + 6u^{36} + \dots - 6703u + 583)$ |
| c_{10} | $(u^{11} - 5u^9 + 2u^8 + 11u^7 - 9u^6 - 12u^5 + 15u^4 + 5u^3 - 11u^2 + u + 3)$ $\cdot (u^{37} - u^{36} + \dots + 6u + 1)$ |
| c_{11} | $(u^{11} + u^{10} - u^9 + 7u^7 + 6u^6 - u^5 - u^4 + 5u^3 + 2u^2 - u - 1)$ $\cdot (u^{37} + 2u^{36} + \dots - 8u - 11)$ |

IV. Riley Polynomials

| Crossings | Riley Polynomials at each crossing |
|---------------|--|
| c_1, c_6 | $(y^{11} + 11y^{10} + \dots - 3y - 1)(y^{37} + 48y^{36} + \dots + 8y - 1)$ |
| c_2 | $(y^{11} - 17y^{10} + \dots + y - 1)(y^{37} - 112y^{36} + \dots - 100y - 1)$ |
| c_3, c_{10} | $(y^{11} - 10y^{10} + \dots + 67y - 9)(y^{37} - 17y^{36} + \dots + 22y - 1)$ |
| c_4 | $(y^{11} - 4y^{10} + \dots + 13y - 1)(y^{37} - 3y^{36} + \dots + 24y - 1)$ |
| c_5 | $(y^{11} - 6y^{10} + \dots - 7y - 1)(y^{37} - 53y^{36} + \dots + 2094316y - 134689)$ |
| c_7 | $(y^{11} + y^{10} + \dots - 3y - 1)(y^{37} + 2y^{36} + \dots - 56y^2 - 1)$ |
| c_8 | $(y^{11} + 3y^{10} + \dots + 46y - 9)(y^{37} + 20y^{36} + \dots - 44975y - 529)$ |
| c_9 | $(y^{11} - 7y^{10} + \dots + 2y - 1)(y^{37} - 66y^{36} + \dots + 4068905y - 339889)$ |
| c_{11} | $(y^{11} - 3y^{10} + \dots + 5y - 1)(y^{37} - 10y^{36} + \dots + 2308y - 121)$ |