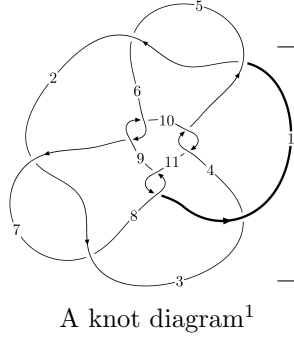
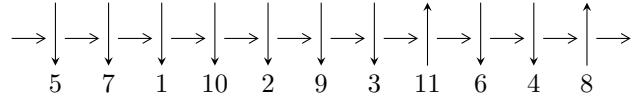


11a₂₇₅ (K11a₂₇₅)



Linearized knot diagram



Solving Sequence

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

Ideals for irreducible components² of X_{par}

$$I_1^u = \langle -1.60406 \times 10^{219} u^{79} - 7.17243 \times 10^{219} u^{78} + \dots + 4.34238 \times 10^{220} b - 5.34167 \times 10^{220}, \\ 1.16482 \times 10^{219} u^{79} + 3.98757 \times 10^{219} u^{78} + \dots + 4.34238 \times 10^{220} a - 4.56749 \times 10^{220}, \\ u^{80} + 4u^{79} + \dots - 27u + 34 \rangle$$

$$I_2^u = \langle -6630u^{15} + 14537u^{14} + \dots + 13613b - 33108, 5953u^{15} - 4661u^{14} + \dots + 13613a + 59873, \\ u^{16} - 3u^{15} + \dots + u + 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 96 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.

$$\mathbf{I. } I_1^u = \langle -1.60 \times 10^{219}u^{79} - 7.17 \times 10^{219}u^{78} + \dots + 4.34 \times 10^{220}b - 5.34 \times 10^{220}, 1.16 \times 10^{219}u^{79} + 3.99 \times 10^{219}u^{78} + \dots + 4.34 \times 10^{220}a - 4.57 \times 10^{220}, u^{80} + 4u^{79} + \dots - 27u + 34 \rangle$$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.0268244u^{79} - 0.0918292u^{78} + \dots - 5.38213u + 1.05184 \\ 0.0369397u^{79} + 0.165173u^{78} + \dots + 0.512746u + 1.23013 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -0.0588440u^{79} - 0.241530u^{78} + \dots - 4.56519u - 0.704217 \\ 0.0522405u^{79} + 0.236004u^{78} + \dots + 1.01761u + 1.96528 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -u \\ u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.0188852u^{79} + 0.0877304u^{78} + \dots + 10.3791u + 0.440251 \\ -0.0179480u^{79} - 0.0787893u^{78} + \dots - 0.984862u - 1.15735 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.00943403u^{79} + 0.0573905u^{78} + \dots - 1.31883u + 0.270591 \\ -0.0530260u^{79} - 0.228362u^{78} + \dots - 1.09682u - 1.74483 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.0236248u^{79} + 0.0987805u^{78} + \dots + 10.4875u + 0.263710 \\ -0.0226876u^{79} - 0.0898394u^{78} + \dots - 1.09319u - 0.980806 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.00299351u^{79} - 0.0183881u^{78} + \dots + 8.20270u - 3.09923 \\ 0.0297591u^{79} + 0.156515u^{78} + \dots - 0.945183u + 1.83821 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.0233526u^{79} - 0.108117u^{78} + \dots - 10.4317u - 0.210530 \\ 0.0379355u^{79} + 0.146692u^{78} + \dots + 2.16096u + 0.319527 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.0233526u^{79} - 0.108117u^{78} + \dots - 10.4317u - 0.210530 \\ 0.0379355u^{79} + 0.146692u^{78} + \dots + 2.16096u + 0.319527 \end{pmatrix}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes = $0.0374310u^{79} + 0.158984u^{78} + \dots - 4.27920u - 10.1108$

(iv) u-Polynomials at the component

| Crossings | u-Polynomials at each crossing |
|---------------|--|
| c_1, c_5 | $u^{80} + u^{79} + \dots - 6u - 1$ |
| c_2, c_7 | $u^{80} - u^{79} + \dots + 3416u - 3721$ |
| c_3 | $u^{80} - 3u^{79} + \dots + 35212u - 5777$ |
| c_4, c_{10} | $u^{80} + 5u^{79} + \dots - 306u - 527$ |
| c_6, c_9 | $u^{80} - 4u^{79} + \dots + 27u + 34$ |
| c_8, c_{11} | $u^{80} + 2u^{79} + \dots - 181u + 31$ |

(v) Riley Polynomials at the component

| Crossings | Riley Polynomials at each crossing |
|---------------|--|
| c_1, c_5 | $y^{80} - 43y^{79} + \dots - 4y + 1$ |
| c_2, c_7 | $y^{80} - 47y^{79} + \dots - 72209726y + 13845841$ |
| c_3 | $y^{80} - 25y^{79} + \dots - 1723258088y + 33373729$ |
| c_4, c_{10} | $y^{80} + 37y^{79} + \dots + 5061478y + 277729$ |
| c_6, c_9 | $y^{80} + 46y^{79} + \dots - 6577y + 1156$ |
| c_8, c_{11} | $y^{80} + 46y^{79} + \dots - 21229y + 961$ |

(vi) Complex Volumes and Cusp Shapes

| Solutions to I_1^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|--|---------------------------------------|-----------------------|
| $u = -0.106386 + 1.004750I$ $a = 1.30657 - 3.48011I$ $b = -0.934597 + 0.108810I$ | $-1.54698 + 0.32425I$ | $0. + 43.4640I$ |
| $u = -0.106386 - 1.004750I$ $a = 1.30657 + 3.48011I$ $b = -0.934597 - 0.108810I$ | $-1.54698 - 0.32425I$ | $0. - 43.4640I$ |
| $u = -0.949052 + 0.351718I$ $a = 0.026470 - 0.205607I$ $b = 1.365600 + 0.175084I$ | $-10.27100 - 4.13973I$ | $-15.7867 + 0.I$ |
| $u = -0.949052 - 0.351718I$ $a = 0.026470 + 0.205607I$ $b = 1.365600 - 0.175084I$ | $-10.27100 + 4.13973I$ | $-15.7867 + 0.I$ |
| $u = 0.962671$ $a = 0.0366403$ $b = 1.32951$ | -6.48924 | -14.1030 |
| $u = 0.937397 + 0.161665I$ $a = 0.920463 - 0.400431I$ $b = 0.967920 + 0.489832I$ | $-2.35882 - 5.51067I$ | $-9.84350 + 5.87992I$ |
| $u = 0.937397 - 0.161665I$ $a = 0.920463 + 0.400431I$ $b = 0.967920 - 0.489832I$ | $-2.35882 + 5.51067I$ | $-9.84350 - 5.87992I$ |
| $u = -0.793127 + 0.690281I$ $a = 0.518674 + 0.094068I$ $b = -1.273860 - 0.525082I$ | $-6.89106 + 0.74404I$ | 0 |
| $u = -0.793127 - 0.690281I$ $a = 0.518674 - 0.094068I$ $b = -1.273860 + 0.525082I$ | $-6.89106 - 0.74404I$ | 0 |
| $u = -0.659363 + 0.854056I$ $a = -0.57349 - 1.44928I$ $b = -0.199019 + 0.681360I$ | $-3.86467 + 5.85230I$ | 0 |

| Solutions to I_1^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|--|---------------------------------------|------------------------|
| $u = -0.659363 - 0.854056I$ $a = -0.57349 + 1.44928I$ $b = -0.199019 - 0.681360I$ | $-3.86467 - 5.85230I$ | 0 |
| $u = -0.805203 + 0.426514I$ $a = -1.28132 - 1.16225I$ $b = -0.252459 - 0.114986I$ | $-3.58794 + 6.02169I$ | $-10.86973 - 2.67201I$ |
| $u = -0.805203 - 0.426514I$ $a = -1.28132 + 1.16225I$ $b = -0.252459 + 0.114986I$ | $-3.58794 - 6.02169I$ | $-10.86973 + 2.67201I$ |
| $u = 0.387429 + 1.022610I$ $a = 0.54036 - 1.44386I$ $b = -0.59005 + 1.44645I$ | $3.03457 - 2.75755I$ | 0 |
| $u = 0.387429 - 1.022610I$ $a = 0.54036 + 1.44386I$ $b = -0.59005 - 1.44645I$ | $3.03457 + 2.75755I$ | 0 |
| $u = 0.498626 + 0.991215I$ $a = 0.201073 + 1.385690I$ $b = -0.651728 - 0.201624I$ | $0.84491 - 2.13326I$ | 0 |
| $u = 0.498626 - 0.991215I$ $a = 0.201073 - 1.385690I$ $b = -0.651728 + 0.201624I$ | $0.84491 + 2.13326I$ | 0 |
| $u = 0.775066 + 0.803905I$ $a = 0.351470 - 0.336348I$ $b = 0.684548 - 0.092570I$ | $-0.81827 - 2.05131I$ | 0 |
| $u = 0.775066 - 0.803905I$ $a = 0.351470 + 0.336348I$ $b = 0.684548 + 0.092570I$ | $-0.81827 + 2.05131I$ | 0 |
| $u = -0.598911 + 0.644725I$ $a = 0.666718 + 0.938431I$ $b = -0.468858 - 0.776453I$ | $-4.43027 - 1.02077I$ | $-11.34703 + 0.I$ |

| Solutions to I_1^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|--|---------------------------------------|-----------------------|
| $u = -0.598911 - 0.644725I$ $a = 0.666718 - 0.938431I$ $b = -0.468858 + 0.776453I$ | $-4.43027 + 1.02077I$ | $-11.34703 + 0.I$ |
| $u = -0.132414 + 0.853219I$ $a = 0.07134 - 1.57906I$ $b = -0.966164 + 0.359794I$ | $-0.328167 + 0.843678I$ | $-6.69440 - 1.81465I$ |
| $u = -0.132414 - 0.853219I$ $a = 0.07134 + 1.57906I$ $b = -0.966164 - 0.359794I$ | $-0.328167 - 0.843678I$ | $-6.69440 + 1.81465I$ |
| $u = 1.116250 + 0.229412I$ $a = 0.099344 + 0.155243I$ $b = -1.214420 + 0.397022I$ | $-2.84331 + 4.24599I$ | 0 |
| $u = 1.116250 - 0.229412I$ $a = 0.099344 - 0.155243I$ $b = -1.214420 - 0.397022I$ | $-2.84331 - 4.24599I$ | 0 |
| $u = -0.431362 + 1.068660I$ $a = 0.215285 + 1.394890I$ $b = 1.208240 - 0.650185I$ | $3.92912 + 5.75666I$ | 0 |
| $u = -0.431362 - 1.068660I$ $a = 0.215285 - 1.394890I$ $b = 1.208240 + 0.650185I$ | $3.92912 - 5.75666I$ | 0 |
| $u = 0.205171 + 0.782039I$ $a = 0.45788 + 1.43880I$ $b = 0.046673 - 0.232573I$ | $1.09182 - 1.88602I$ | $-3.93284 + 6.84227I$ |
| $u = 0.205171 - 0.782039I$ $a = 0.45788 - 1.43880I$ $b = 0.046673 + 0.232573I$ | $1.09182 + 1.88602I$ | $-3.93284 - 6.84227I$ |
| $u = -0.395238 + 1.125030I$ $a = -1.09528 + 1.30675I$ $b = 1.221700 - 0.524298I$ | $-5.77402 - 0.98954I$ | 0 |

| Solutions to I_1^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|--|---------------------------------------|-----------------------|
| $u = -0.395238 - 1.125030I$ $a = -1.09528 - 1.30675I$ $b = 1.221700 + 0.524298I$ | $-5.77402 + 0.98954I$ | 0 |
| $u = -0.679537 + 1.008540I$ $a = 0.05788 - 1.67451I$ $b = -1.111850 + 0.790562I$ | $-5.89450 + 4.83270I$ | 0 |
| $u = -0.679537 - 1.008540I$ $a = 0.05788 + 1.67451I$ $b = -1.111850 - 0.790562I$ | $-5.89450 - 4.83270I$ | 0 |
| $u = -0.085610 + 1.213650I$ $a = -0.506285 - 0.982225I$ $b = 0.400724 + 1.016080I$ | $6.51711 - 0.28172I$ | 0 |
| $u = -0.085610 - 1.213650I$ $a = -0.506285 + 0.982225I$ $b = 0.400724 - 1.016080I$ | $6.51711 + 0.28172I$ | 0 |
| $u = 0.317123 + 0.711899I$ $a = -0.51685 + 2.64573I$ $b = 0.038672 - 1.233930I$ | $1.84806 - 0.31109I$ | $-8.59302 - 2.40672I$ |
| $u = 0.317123 - 0.711899I$ $a = -0.51685 - 2.64573I$ $b = 0.038672 + 1.233930I$ | $1.84806 + 0.31109I$ | $-8.59302 + 2.40672I$ |
| $u = 0.067213 + 0.764941I$ $a = -1.80505 + 1.83294I$ $b = -1.099080 - 0.188046I$ | $-2.33888 - 0.32984I$ | $-8.07472 - 4.98162I$ |
| $u = 0.067213 - 0.764941I$ $a = -1.80505 - 1.83294I$ $b = -1.099080 + 0.188046I$ | $-2.33888 + 0.32984I$ | $-8.07472 + 4.98162I$ |
| $u = 0.607844 + 0.450538I$ $a = 0.522201 + 0.024471I$ $b = 0.220687 - 0.347615I$ | $-0.75850 - 1.84706I$ | $-5.49749 + 3.01488I$ |

| Solutions to I_1^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|---|---------------------------------------|-----------------------|
| $u = 0.607844 - 0.450538I$ $a = 0.522201 - 0.024471I$ $b = 0.220687 + 0.347615I$ | $-0.75850 + 1.84706I$ | $-5.49749 - 3.01488I$ |
| $u = -0.482232 + 1.167990I$ $a = 0.278937 + 1.270480I$ $b = -0.306276 - 1.309440I$ | $-0.18620 + 9.95806I$ | 0 |
| $u = -0.482232 - 1.167990I$ $a = 0.278937 - 1.270480I$ $b = -0.306276 + 1.309440I$ | $-0.18620 - 9.95806I$ | 0 |
| $u = -0.145194 + 0.718422I$ $a = -0.718273 - 0.325939I$ $b = 1.86404 + 0.21206I$ | $-7.72237 + 3.39581I$ | $-2.62157 - 5.42993I$ |
| $u = -0.145194 - 0.718422I$ $a = -0.718273 + 0.325939I$ $b = 1.86404 - 0.21206I$ | $-7.72237 - 3.39581I$ | $-2.62157 + 5.42993I$ |
| $u = -0.284742 + 1.290950I$ $a = -0.049100 - 0.733204I$ $b = -1.200570 + 0.409251I$ | $0.524621 - 0.718329I$ | 0 |
| $u = -0.284742 - 1.290950I$ $a = -0.049100 + 0.733204I$ $b = -1.200570 - 0.409251I$ | $0.524621 + 0.718329I$ | 0 |
| $u = 0.484484 + 1.248630I$ $a = 0.139134 - 1.321260I$ $b = 1.244740 + 0.562971I$ | $1.63511 - 10.27850I$ | 0 |
| $u = 0.484484 - 1.248630I$ $a = 0.139134 + 1.321260I$ $b = 1.244740 - 0.562971I$ | $1.63511 + 10.27850I$ | 0 |
| $u = 0.693014 + 1.153210I$ $a = -0.233591 + 0.433958I$ $b = -1.209870 - 0.311520I$ | $1.00831 - 3.62362I$ | 0 |

| Solutions to I_1^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|--|---------------------------------------|-----------------------|
| $u = 0.693014 - 1.153210I$ $a = -0.233591 - 0.433958I$ $b = -1.209870 + 0.311520I$ | $1.00831 + 3.62362I$ | 0 |
| $u = 0.505678 + 1.267990I$ $a = -0.627794 - 1.192600I$ $b = 1.219070 + 0.431198I$ | $-2.57891 - 5.15325I$ | 0 |
| $u = 0.505678 - 1.267990I$ $a = -0.627794 + 1.192600I$ $b = 1.219070 - 0.431198I$ | $-2.57891 + 5.15325I$ | 0 |
| $u = -0.610191 + 1.221500I$ $a = -0.43570 + 1.51047I$ $b = 1.199520 - 0.436737I$ | $-7.51244 + 9.85286I$ | 0 |
| $u = -0.610191 - 1.221500I$ $a = -0.43570 - 1.51047I$ $b = 1.199520 + 0.436737I$ | $-7.51244 - 9.85286I$ | 0 |
| $u = 0.204953 + 1.350040I$ $a = -0.308819 + 0.965842I$ $b = 0.190591 - 0.919605I$ | $4.86269 - 4.86500I$ | 0 |
| $u = 0.204953 - 1.350040I$ $a = -0.308819 - 0.965842I$ $b = 0.190591 + 0.919605I$ | $4.86269 + 4.86500I$ | 0 |
| $u = -0.502245 + 0.337110I$ $a = 0.626882 + 0.952788I$ $b = 0.728847 + 0.455431I$ | $1.91146 - 1.96925I$ | $-2.72689 + 3.92118I$ |
| $u = -0.502245 - 0.337110I$ $a = 0.626882 - 0.952788I$ $b = 0.728847 - 0.455431I$ | $1.91146 + 1.96925I$ | $-2.72689 - 3.92118I$ |
| $u = 0.66119 + 1.26252I$ $a = 0.23631 + 1.39596I$ $b = -1.33184 - 0.78181I$ | $0.29094 - 10.51250I$ | 0 |

| Solutions to I_1^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|--|---------------------------------------|------------|
| $u = 0.66119 - 1.26252I$ $a = 0.23631 - 1.39596I$ $b = -1.33184 + 0.78181I$ | $0.29094 + 10.51250I$ | 0 |
| $u = -0.59203 + 1.31115I$ $a = -0.021584 - 0.482843I$ $b = 0.440321 + 0.673105I$ | $2.09582 + 1.45533I$ | 0 |
| $u = -0.59203 - 1.31115I$ $a = -0.021584 + 0.482843I$ $b = 0.440321 - 0.673105I$ | $2.09582 - 1.45533I$ | 0 |
| $u = 0.30134 + 1.42505I$ $a = 0.013198 + 0.631788I$ $b = 0.442076 - 0.614277I$ | $2.20909 - 0.33519I$ | 0 |
| $u = 0.30134 - 1.42505I$ $a = 0.013198 - 0.631788I$ $b = 0.442076 + 0.614277I$ | $2.20909 + 0.33519I$ | 0 |
| $u = -1.44394 + 0.42259I$ $a = 0.0637499 + 0.0240536I$ $b = -1.152850 - 0.428505I$ | $-6.52297 - 9.40235I$ | 0 |
| $u = -1.44394 - 0.42259I$ $a = 0.0637499 - 0.0240536I$ $b = -1.152850 + 0.428505I$ | $-6.52297 + 9.40235I$ | 0 |
| $u = -0.76723 + 1.33457I$ $a = 0.124143 - 1.294850I$ $b = -1.32553 + 0.70779I$ | $-3.4640 + 16.9486I$ | 0 |
| $u = -0.76723 - 1.33457I$ $a = 0.124143 + 1.294850I$ $b = -1.32553 - 0.70779I$ | $-3.4640 - 16.9486I$ | 0 |
| $u = 0.85727 + 1.29795I$ $a = 0.154855 - 0.913546I$ $b = 1.074300 + 0.512049I$ | $0.33774 - 4.80042I$ | 0 |

| Solutions to I_1^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|--|---------------------------------------|-----------------------|
| $u = 0.85727 - 1.29795I$ $a = 0.154855 + 0.913546I$ $b = 1.074300 - 0.512049I$ | $0.33774 + 4.80042I$ | 0 |
| $u = -1.13250 + 1.08347I$ $a = 0.357811 + 0.825069I$ $b = 1.059500 - 0.561243I$ | $0.29351 + 6.24678I$ | 0 |
| $u = -1.13250 - 1.08347I$ $a = 0.357811 - 0.825069I$ $b = 1.059500 + 0.561243I$ | $0.29351 - 6.24678I$ | 0 |
| $u = 0.311983 + 0.229233I$ $a = 0.21073 + 3.18354I$ $b = -0.957483 - 0.269471I$ | $-3.66318 - 0.26666I$ | $-14.9328 + 0.9814I$ |
| $u = 0.311983 - 0.229233I$ $a = 0.21073 - 3.18354I$ $b = -0.957483 + 0.269471I$ | $-3.66318 + 0.26666I$ | $-14.9328 - 0.9814I$ |
| $u = -0.242211 + 0.227257I$ $a = -2.94710 - 4.83050I$ $b = 0.447980 + 0.630904I$ | $-3.20065 - 6.05158I$ | $-6.61264 + 3.93826I$ |
| $u = -0.242211 - 0.227257I$ $a = -2.94710 + 4.83050I$ $b = 0.447980 - 0.630904I$ | $-3.20065 + 6.05158I$ | $-6.61264 - 3.93826I$ |
| $u = 0.217813$ $a = 1.63753$ $b = -0.452023$ | -0.718352 | -14.2620 |
| $u = 0.31645 + 1.94342I$ $a = 0.401083 + 0.176751I$ $b = -0.757995 + 0.007392I$ | $3.44325 - 2.33828I$ | 0 |
| $u = 0.31645 - 1.94342I$ $a = 0.401083 - 0.176751I$ $b = -0.757995 - 0.007392I$ | $3.44325 + 2.33828I$ | 0 |

$$\text{II. } I_2^u = \langle -6630u^{15} + 14537u^{14} + \dots + 13613b - 33108, 5953u^{15} - 4661u^{14} + \dots + 13613a + 59873, u^{16} - 3u^{15} + \dots + u + 1 \rangle$$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.437303u^{15} + 0.342393u^{14} + \dots - 5.84493u - 4.39822 \\ 0.487034u^{15} - 1.06788u^{14} + \dots + 3.44362u + 2.43209 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -1.56564u^{15} + 3.28245u^{14} + \dots - 7.88173u - 5.86079 \\ 0.919195u^{15} - 1.81679u^{14} + \dots + 5.01690u + 2.87703 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -u \\ u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 3.20929u^{15} - 9.05451u^{14} + \dots + 6.85624u + 3.49849 \\ -2.08095u^{15} + 6.11445u^{14} + \dots - 4.81944u - 2.03592 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 2.36590u^{15} - 9.75869u^{14} + \dots + 0.387130u - 0.295894 \\ -1.18784u^{15} + 5.09315u^{14} + \dots - 1.75163u - 0.207669 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 2.77712u^{15} - 8.30559u^{14} + \dots + 5.28296u + 3.05355 \\ -1.64879u^{15} + 5.36553u^{14} + \dots - 3.24616u - 1.59098 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.342761u^{15} + 0.588041u^{14} + \dots - 7.16470u + 1.08565 \\ 0.783002u^{15} - 2.55528u^{14} + \dots + 4.73628u - 1.42841 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -1.48182u^{15} + 5.50878u^{14} + \dots + 0.746198u - 2.02233 \\ 0.481819u^{15} - 2.50878u^{14} + \dots + 0.253802u + 1.02233 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -1.48182u^{15} + 5.50878u^{14} + \dots + 0.746198u - 2.02233 \\ 0.481819u^{15} - 2.50878u^{14} + \dots + 0.253802u + 1.02233 \end{pmatrix}$$

(ii) Obstruction class = 1

$$\text{(iii) Cusp Shapes} = -\frac{126196}{13613}u^{15} + \frac{361017}{13613}u^{14} + \dots - \frac{176076}{13613}u - \frac{182048}{13613}$$

(iv) u-Polynomials at the component

| Crossings | u-Polynomials at each crossing |
|-----------|--------------------------------------|
| c_1 | $u^{16} + 4u^{15} + \dots + 4u + 1$ |
| c_2 | $u^{16} + 6u^{13} + \dots - 2u + 1$ |
| c_3 | $u^{16} + 6u^{15} + \dots + 12u + 1$ |
| c_4 | $u^{16} - 4u^{15} + \dots + 4u + 1$ |
| c_5 | $u^{16} - 4u^{15} + \dots - 4u + 1$ |
| c_6 | $u^{16} - 3u^{15} + \dots + u + 1$ |
| c_7 | $u^{16} - 6u^{13} + \dots + 2u + 1$ |
| c_8 | $u^{16} + 3u^{15} + \dots - u + 1$ |
| c_9 | $u^{16} + 3u^{15} + \dots - u + 1$ |
| c_{10} | $u^{16} + 4u^{15} + \dots - 4u + 1$ |
| c_{11} | $u^{16} - 3u^{15} + \dots + u + 1$ |

(v) Riley Polynomials at the component

| Crossings | Riley Polynomials at each crossing |
|---------------|---------------------------------------|
| c_1, c_5 | $y^{16} - 8y^{15} + \dots - 8y + 1$ |
| c_2, c_7 | $y^{16} - 36y^{14} + \dots - 2y + 1$ |
| c_3 | $y^{16} - 2y^{15} + \dots - 16y + 1$ |
| c_4, c_{10} | $y^{16} - 40y^{14} + \dots + 2y + 1$ |
| c_6, c_9 | $y^{16} + 13y^{15} + \dots + 13y + 1$ |
| c_8, c_{11} | $y^{16} + 5y^{15} + \dots + 7y + 1$ |

(vi) Complex Volumes and Cusp Shapes

| Solutions to I_2^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|--|---------------------------------------|------------------------|
| $u = -0.101294 + 0.981672I$ $a = 0.12047 - 2.74164I$ $b = -1.002360 + 0.178823I$ | $-1.67108 + 0.41329I$ | $-23.4089 + 3.7817I$ |
| $u = -0.101294 - 0.981672I$ $a = 0.12047 + 2.74164I$ $b = -1.002360 - 0.178823I$ | $-1.67108 - 0.41329I$ | $-23.4089 - 3.7817I$ |
| $u = 0.623315 + 0.892744I$ $a = -0.203916 + 0.768996I$ $b = -0.933085 - 0.164926I$ | $-1.48457 - 2.42366I$ | $-12.58854 + 4.41901I$ |
| $u = 0.623315 - 0.892744I$ $a = -0.203916 - 0.768996I$ $b = -0.933085 + 0.164926I$ | $-1.48457 + 2.42366I$ | $-12.58854 - 4.41901I$ |
| $u = -0.699739 + 0.517450I$ $a = 1.75573 + 1.74837I$ $b = 0.606505 - 0.489801I$ | $-3.58696 + 6.81151I$ | $-11.0601 - 13.1790I$ |
| $u = -0.699739 - 0.517450I$ $a = 1.75573 - 1.74837I$ $b = 0.606505 + 0.489801I$ | $-3.58696 - 6.81151I$ | $-11.0601 + 13.1790I$ |
| $u = 0.310572 + 1.172820I$ $a = -0.010870 + 1.004540I$ $b = 0.252552 - 1.034960I$ | $4.17484 - 1.01269I$ | $-2.56085 + 0.73282I$ |
| $u = 0.310572 - 1.172820I$ $a = -0.010870 - 1.004540I$ $b = 0.252552 + 1.034960I$ | $4.17484 + 1.01269I$ | $-2.56085 - 0.73282I$ |
| $u = 0.183037 + 0.692134I$ $a = 0.04599 - 2.88279I$ $b = -0.260836 + 1.037800I$ | $2.13903 - 1.01254I$ | $-1.87145 + 5.73964I$ |
| $u = 0.183037 - 0.692134I$ $a = 0.04599 + 2.88279I$ $b = -0.260836 - 1.037800I$ | $2.13903 + 1.01254I$ | $-1.87145 - 5.73964I$ |

| Solutions to I_2^u | $\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$ | Cusp shape |
|------------------------------|---------------------------------------|------------------------|
| $u = 1.00338 + 1.15887I$ | | |
| $a = 0.264250 - 0.814168I$ | $1.36811 - 5.87068I$ | $-3.73603 + 6.05900I$ |
| $b = 1.114260 + 0.514050I$ | | |
| $u = 1.00338 - 1.15887I$ | | |
| $a = 0.264250 + 0.814168I$ | $1.36811 + 5.87068I$ | $-3.73603 - 6.05900I$ |
| $b = 1.114260 - 0.514050I$ | | |
| $u = -0.203694 + 0.378381I$ | | |
| $a = -1.98850 - 0.07556I$ | $-8.21157 + 3.18915I$ | $-16.8553 - 0.1010I$ |
| $b = 1.70034 + 0.18352I$ | | |
| $u = -0.203694 - 0.378381I$ | | |
| $a = -1.98850 + 0.07556I$ | $-8.21157 - 3.18915I$ | $-16.8553 + 0.1010I$ |
| $b = 1.70034 - 0.18352I$ | | |
| $u = 0.38442 + 1.82901I$ | | |
| $a = 0.0168503 + 0.1111360I$ | $3.98234 - 2.11939I$ | $1.081156 + 0.586483I$ |
| $b = 0.522619 - 0.189004I$ | | |
| $u = 0.38442 - 1.82901I$ | | |
| $a = 0.0168503 - 0.1111360I$ | $3.98234 + 2.11939I$ | $1.081156 - 0.586483I$ |
| $b = 0.522619 + 0.189004I$ | | |

III. u-Polynomials

| Crossings | u-Polynomials at each crossing |
|-----------|--|
| c_1 | $(u^{16} + 4u^{15} + \dots + 4u + 1)(u^{80} + u^{79} + \dots - 6u - 1)$ |
| c_2 | $(u^{16} + 6u^{13} + \dots - 2u + 1)(u^{80} - u^{79} + \dots + 3416u - 3721)$ |
| c_3 | $(u^{16} + 6u^{15} + \dots + 12u + 1)(u^{80} - 3u^{79} + \dots + 35212u - 5777)$ |
| c_4 | $(u^{16} - 4u^{15} + \dots + 4u + 1)(u^{80} + 5u^{79} + \dots - 306u - 527)$ |
| c_5 | $(u^{16} - 4u^{15} + \dots - 4u + 1)(u^{80} + u^{79} + \dots - 6u - 1)$ |
| c_6 | $(u^{16} - 3u^{15} + \dots + u + 1)(u^{80} - 4u^{79} + \dots + 27u + 34)$ |
| c_7 | $(u^{16} - 6u^{13} + \dots + 2u + 1)(u^{80} - u^{79} + \dots + 3416u - 3721)$ |
| c_8 | $(u^{16} + 3u^{15} + \dots - u + 1)(u^{80} + 2u^{79} + \dots - 181u + 31)$ |
| c_9 | $(u^{16} + 3u^{15} + \dots - u + 1)(u^{80} - 4u^{79} + \dots + 27u + 34)$ |
| c_{10} | $(u^{16} + 4u^{15} + \dots - 4u + 1)(u^{80} + 5u^{79} + \dots - 306u - 527)$ |
| c_{11} | $(u^{16} - 3u^{15} + \dots + u + 1)(u^{80} + 2u^{79} + \dots - 181u + 31)$ |

IV. Riley Polynomials

| Crossings | Riley Polynomials at each crossing |
|---------------|--|
| c_1, c_5 | $(y^{16} - 8y^{15} + \dots - 8y + 1)(y^{80} - 43y^{79} + \dots - 4y + 1)$ |
| c_2, c_7 | $(y^{16} - 36y^{14} + \dots - 2y + 1)$ $\cdot (y^{80} - 47y^{79} + \dots - 72209726y + 13845841)$ |
| c_3 | $(y^{16} - 2y^{15} + \dots - 16y + 1)$ $\cdot (y^{80} - 25y^{79} + \dots - 1723258088y + 33373729)$ |
| c_4, c_{10} | $(y^{16} - 40y^{14} + \dots + 2y + 1)(y^{80} + 37y^{79} + \dots + 5061478y + 277729)$ |
| c_6, c_9 | $(y^{16} + 13y^{15} + \dots + 13y + 1)(y^{80} + 46y^{79} + \dots - 6577y + 1156)$ |
| c_8, c_{11} | $(y^{16} + 5y^{15} + \dots + 7y + 1)(y^{80} + 46y^{79} + \dots - 21229y + 961)$ |