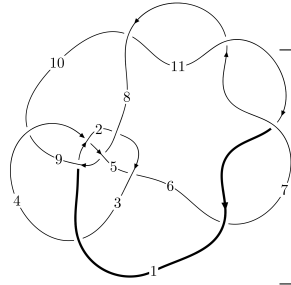
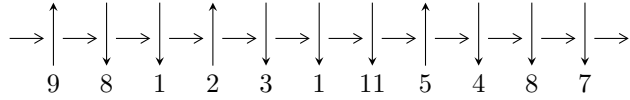


11n₁₅₀ (K11n₁₅₀)



A knot diagram¹

Linearized knot diagram



Solving Sequence

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

Ideals for irreducible components² of X_{par}

$$I_1^u = \langle 2575706427464u^{21} - 75635053703013u^{20} + \dots + 105076803822638b - 642339227026933, \\ 1743319071217019u^{21} + 1770759336218560u^{20} + \dots + 525384019113190a - 4689968007233431, \\ u^{22} - 4u^{20} + \dots - 14u + 5 \rangle$$

$$I_2^u = \langle 7.75318 \times 10^{41}u^{23} + 7.31958 \times 10^{41}u^{22} + \dots + 5.04425 \times 10^{43}b + 5.71288 \times 10^{43}, \\ - 3.32426 \times 10^{43}u^{23} - 4.90017 \times 10^{43}u^{22} + \dots + 9.24779 \times 10^{44}a + 2.28923 \times 10^{45}, \\ u^{24} + u^{23} + \dots - 14u + 11 \rangle$$

$$I_3^u = \langle -u^2 + b + 1, u^8 - u^7 - 2u^6 + u^5 + 3u^4 - 4u^2 + a + u + 2, u^9 - 2u^7 - u^6 + 2u^5 + 2u^4 - 2u^3 - u^2 + u + 1 \rangle$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 55 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.

$$\text{I. } I_1^u = \langle 2.58 \times 10^{12} u^{21} - 7.56 \times 10^{13} u^{20} + \dots + 1.05 \times 10^{14} b - 6.42 \times 10^{14}, 1.74 \times 10^{15} u^{21} + 1.77 \times 10^{15} u^{20} + \dots + 5.25 \times 10^{14} a - 4.69 \times 10^{15}, u^{22} - 4u^{20} + \dots - 14u + 5 \rangle$$

(i) Arc colorings

$$\begin{aligned} a_2 &= \begin{pmatrix} 1 \\ 0 \end{pmatrix} \\ a_8 &= \begin{pmatrix} 0 \\ u \end{pmatrix} \\ a_3 &= \begin{pmatrix} 1 \\ u^2 \end{pmatrix} \\ a_5 &= \begin{pmatrix} -3.31818u^{21} - 3.37041u^{20} + \dots - 24.1967u + 8.92674 \\ -0.0245126u^{21} + 0.719807u^{20} + \dots + 0.565515u + 6.11304 \end{pmatrix} \\ a_6 &= \begin{pmatrix} -6.91563u^{21} - 7.12434u^{20} + \dots - 55.3570u + 19.6657 \\ -3.62984u^{21} - 2.30969u^{20} + \dots - 34.0023u + 24.8827 \end{pmatrix} \\ a_9 &= \begin{pmatrix} 10.1768u^{21} + 5.97138u^{20} + \dots + 106.076u - 77.2357 \\ -3.37041u^{21} - 3.62196u^{20} + \dots - 37.5278u + 16.5909 \end{pmatrix} \\ a_1 &= \begin{pmatrix} 15.2289u^{21} + 12.3246u^{20} + \dots + 150.786u - 83.4067 \\ 5.97138u^{21} + 2.84888u^{20} + \dots + 65.2393u - 50.8839 \end{pmatrix} \\ a_4 &= \begin{pmatrix} -3.29367u^{21} - 4.09022u^{20} + \dots - 24.7622u + 2.81370 \\ -0.0245126u^{21} + 0.719807u^{20} + \dots + 0.565515u + 6.11304 \end{pmatrix} \\ a_{10} &= \begin{pmatrix} 14.2670u^{21} + 10.4261u^{20} + \dots + 149.374u - 93.7040 \\ -4.09022u^{21} - 4.45473u^{20} + \dots - 43.2977u + 16.4683 \end{pmatrix} \\ a_{11} &= \begin{pmatrix} 14.2670u^{21} + 10.4261u^{20} + \dots + 149.374u - 93.7040 \\ 2.71761u^{21} - 0.249682u^{20} + \dots + 31.3329u - 35.6622 \end{pmatrix} \\ a_7 &= \begin{pmatrix} 5.68713u^{21} + 4.69087u^{20} + \dots + 59.0094u - 36.8288 \\ -0.0869368u^{21} + 1.65095u^{20} + \dots - 4.06164u + 14.6425 \end{pmatrix} \\ a_7 &= \begin{pmatrix} 5.68713u^{21} + 4.69087u^{20} + \dots + 59.0094u - 36.8288 \\ -0.0869368u^{21} + 1.65095u^{20} + \dots - 4.06164u + 14.6425 \end{pmatrix} \end{aligned}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes

$$= -\frac{46675218577444}{52538401911319} u^{21} + \frac{154724488953125}{52538401911319} u^{20} + \dots + \frac{718281907576011}{52538401911319} u + \frac{149853052606131}{52538401911319}$$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_8	$u^{22} - u^{21} + \dots - u + 1$
c_2, c_9	$u^{22} - 4u^{20} + \dots + 14u + 5$
c_3, c_5	$u^{22} + 2u^{21} + \dots - 2u + 1$
c_4	$u^{22} + 14u^{21} + \dots + 11u + 2$
c_6, c_7, c_{10} c_{11}	$u^{22} - 5u^{21} + \dots - 3u + 4$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_8	$y^{22} + 9y^{21} + \dots + 21y + 1$
c_2, c_9	$y^{22} - 8y^{21} + \dots - 246y + 25$
c_3, c_5	$y^{22} - 28y^{21} + \dots - 10y + 1$
c_4	$y^{22} + 36y^{20} + \dots + 71y + 4$
c_6, c_7, c_{10} c_{11}	$y^{22} + 19y^{21} + \dots + 7y + 16$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.428754 + 0.878103I$ $a = 0.455413 - 0.257667I$ $b = -0.663346 - 0.941102I$	$3.69794 + 2.45328I$	$-0.65552 - 2.28211I$
$u = -0.428754 - 0.878103I$ $a = 0.455413 + 0.257667I$ $b = -0.663346 + 0.941102I$	$3.69794 - 2.45328I$	$-0.65552 + 2.28211I$
$u = 1.026780 + 0.294583I$ $a = -0.083593 + 0.649774I$ $b = 1.19477 + 1.51394I$	$-1.94956 - 5.83716I$	$-9.57717 + 8.35225I$
$u = 1.026780 - 0.294583I$ $a = -0.083593 - 0.649774I$ $b = 1.19477 - 1.51394I$	$-1.94956 + 5.83716I$	$-9.57717 - 8.35225I$
$u = -0.897797 + 0.074279I$ $a = -0.270012 - 0.839152I$ $b = 1.34747 - 1.07987I$	$-5.71309 + 1.52838I$	$-12.61169 - 4.44312I$
$u = -0.897797 - 0.074279I$ $a = -0.270012 + 0.839152I$ $b = 1.34747 + 1.07987I$	$-5.71309 - 1.52838I$	$-12.61169 + 4.44312I$
$u = -0.827838 + 0.234233I$ $a = 0.995620 - 0.629938I$ $b = 0.282736 - 0.453819I$	$-0.21957 - 2.12717I$	$-6.07714 + 3.56253I$
$u = -0.827838 - 0.234233I$ $a = 0.995620 + 0.629938I$ $b = 0.282736 + 0.453819I$	$-0.21957 + 2.12717I$	$-6.07714 - 3.56253I$
$u = 0.760691 + 0.206194I$ $a = 1.08312 - 1.47957I$ $b = 0.677862 - 0.440050I$	$7.68733 - 4.10610I$	$-10.22463 + 1.15969I$
$u = 0.760691 - 0.206194I$ $a = 1.08312 + 1.47957I$ $b = 0.677862 + 0.440050I$	$7.68733 + 4.10610I$	$-10.22463 - 1.15969I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.717385 + 0.176237I$ $a = -0.728362 - 1.017690I$ $b = 1.46505 - 0.64978I$	$-1.45123 - 2.66218I$	$-7.52164 - 0.32161I$
$u = 0.717385 - 0.176237I$ $a = -0.728362 + 1.017690I$ $b = 1.46505 + 0.64978I$	$-1.45123 + 2.66218I$	$-7.52164 + 0.32161I$
$u = 0.432579 + 0.567805I$ $a = 0.799059 + 0.423606I$ $b = 0.023080 + 0.517895I$	$-0.808492 - 0.857573I$	$-6.91603 + 4.94465I$
$u = 0.432579 - 0.567805I$ $a = 0.799059 - 0.423606I$ $b = 0.023080 - 0.517895I$	$-0.808492 + 0.857573I$	$-6.91603 - 4.94465I$
$u = 0.520005 + 1.238630I$ $a = 0.802607 + 0.196282I$ $b = -0.175628 + 0.287507I$	$-0.077811 - 0.121037I$	$-6.01835 - 0.40486I$
$u = 0.520005 - 1.238630I$ $a = 0.802607 - 0.196282I$ $b = -0.175628 - 0.287507I$	$-0.077811 + 0.121037I$	$-6.01835 + 0.40486I$
$u = -1.42815 + 0.70349I$ $a = 0.194878 + 0.926631I$ $b = 0.782653 + 1.033470I$	$-3.38864 + 4.05517I$	$-5.85659 - 2.92403I$
$u = -1.42815 - 0.70349I$ $a = 0.194878 - 0.926631I$ $b = 0.782653 - 1.033470I$	$-3.38864 - 4.05517I$	$-5.85659 + 2.92403I$
$u = 1.40689 + 1.02797I$ $a = 0.033035 - 0.885936I$ $b = 0.95797 - 1.12718I$	$-6.62431 - 9.59009I$	$-7.42347 + 6.05850I$
$u = 1.40689 - 1.02797I$ $a = 0.033035 + 0.885936I$ $b = 0.95797 + 1.12718I$	$-6.62431 + 9.59009I$	$-7.42347 - 6.05850I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.28179 + 1.24184I$		
$a = -0.081765 + 0.868752I$	$-1.8446 + 14.7873I$	$-3.61777 - 8.09852I$
$b = 1.10739 + 1.14097I$		
$u = -1.28179 - 1.24184I$		
$a = -0.081765 - 0.868752I$	$-1.8446 - 14.7873I$	$-3.61777 + 8.09852I$
$b = 1.10739 - 1.14097I$		

$$\text{II. } I_2^u = \langle 7.75 \times 10^{41} u^{23} + 7.32 \times 10^{41} u^{22} + \dots + 5.04 \times 10^{43} b + 5.71 \times 10^{43}, -3.32 \times 10^{43} u^{23} - 4.90 \times 10^{43} u^{22} + \dots + 9.25 \times 10^{44} a + 2.29 \times 10^{45}, u^{24} + u^{23} + \dots - 14u + 11 \rangle$$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 0.0359466u^{23} + 0.0529875u^{22} + \dots + 21.0925u - 2.47544 \\ -0.0153703u^{23} - 0.0145107u^{22} + \dots - 3.98454u - 1.13255 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 0.0411054u^{23} + 0.0645644u^{22} + \dots + 24.9202u - 1.53033 \\ -0.0161448u^{23} - 0.0160826u^{22} + \dots - 3.95144u - 1.20315 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.0967087u^{23} - 0.0561866u^{22} + \dots - 8.43223u + 1.35926 \\ 0.00738052u^{23} + 0.0148442u^{22} + \dots + 5.23380u + 0.445645 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.00456662u^{23} + 0.0198549u^{22} + \dots + 4.17439u + 3.32554 \\ 0.0109435u^{23} + 0.0143386u^{22} + \dots + 6.53516u - 0.554396 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.0513169u^{23} + 0.0674983u^{22} + \dots + 25.0770u - 1.34288 \\ -0.0153703u^{23} - 0.0145107u^{22} + \dots - 3.98454u - 1.13255 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.0201213u^{23} + 0.0353821u^{22} + \dots + 6.23353u + 6.83415 \\ 0.0302784u^{23} + 0.0259611u^{22} + \dots + 11.9102u - 1.00459 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.0201213u^{23} + 0.0353821u^{22} + \dots + 6.23353u + 6.83415 \\ 0.0323398u^{23} + 0.0261261u^{22} + \dots + 11.9025u - 1.17246 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0.123802u^{23} + 0.132537u^{22} + \dots + 51.6121u - 2.14655 \\ -0.0158132u^{23} - 0.0205158u^{22} + \dots - 6.87114u - 2.42748 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 0.123802u^{23} + 0.132537u^{22} + \dots + 51.6121u - 2.14655 \\ -0.0158132u^{23} - 0.0205158u^{22} + \dots - 6.87114u - 2.42748 \end{pmatrix}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes = $0.0238112u^{23} - 0.0116625u^{22} + \dots - 9.75202u + 2.94951$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_8	$u^{24} - 3u^{23} + \dots - 12u + 5$
c_2, c_9	$u^{24} - u^{23} + \dots + 14u + 11$
c_3, c_5	$u^{24} + u^{23} + \dots - 188u + 145$
c_4	$(u^{12} - 5u^{11} + \dots + 3u^2 + 1)^2$
c_6, c_7, c_{10} c_{11}	$(u^{12} + 3u^{11} + \dots - 2u + 1)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_8	$y^{24} - 5y^{23} + \dots + 116y + 25$
c_2, c_9	$y^{24} - 9y^{23} + \dots + 7812y + 121$
c_3, c_5	$y^{24} - 9y^{23} + \dots - 29544y + 21025$
c_4	$(y^{12} + y^{11} + \dots + 6y + 1)^2$
c_6, c_7, c_{10} c_{11}	$(y^{12} + 9y^{11} + \dots - 6y + 1)^2$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.822375 + 0.544420I$ $a = -0.43573 + 1.79593I$ $b = -0.096849 + 0.815314I$	$-2.20294 - 4.46082I$	$-11.64801 + 4.72827I$
$u = 0.822375 - 0.544420I$ $a = -0.43573 - 1.79593I$ $b = -0.096849 - 0.815314I$	$-2.20294 + 4.46082I$	$-11.64801 - 4.72827I$
$u = -0.994835 + 0.204013I$ $a = -0.365805 - 0.706116I$ $b = -0.897414 - 0.962359I$	$0.29247 + 3.33657I$	$-9.82297 - 1.92424I$
$u = -0.994835 - 0.204013I$ $a = -0.365805 + 0.706116I$ $b = -0.897414 + 0.962359I$	$0.29247 - 3.33657I$	$-9.82297 + 1.92424I$
$u = -0.258569 + 0.999486I$ $a = 0.336204 - 1.107620I$ $b = -1.00664 - 1.21018I$	$3.00704 + 5.40399I$	$-1.47702 - 8.56336I$
$u = -0.258569 - 0.999486I$ $a = 0.336204 + 1.107620I$ $b = -1.00664 + 1.21018I$	$3.00704 - 5.40399I$	$-1.47702 + 8.56336I$
$u = 0.564663 + 0.948037I$ $a = 0.267910 + 1.052460I$ $b = -0.897414 + 0.962359I$	$0.29247 - 3.33657I$	$-9.82297 + 1.92424I$
$u = 0.564663 - 0.948037I$ $a = 0.267910 - 1.052460I$ $b = -0.897414 - 0.962359I$	$0.29247 + 3.33657I$	$-9.82297 - 1.92424I$
$u = -0.759985 + 0.083928I$ $a = -1.94007 - 1.80669I$ $b = 0.225615 - 0.583583I$	$-5.22591 - 0.91968I$	$-15.5307 + 7.1820I$
$u = -0.759985 - 0.083928I$ $a = -1.94007 + 1.80669I$ $b = 0.225615 + 0.583583I$	$-5.22591 + 0.91968I$	$-15.5307 - 7.1820I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.681064 + 0.334584I$ $a = -2.49696 - 0.18183I$ $b = 0.492148 - 0.450600I$	$-0.39191 - 6.22910I$	$-3.95991 + 11.28166I$
$u = 0.681064 - 0.334584I$ $a = -2.49696 + 0.18183I$ $b = 0.492148 + 0.450600I$	$-0.39191 + 6.22910I$	$-3.95991 - 11.28166I$
$u = -0.484578 + 1.315260I$ $a = 0.434565 - 0.649908I$ $b = -1.216860 - 0.709160I$	$4.52125 + 2.53747I$	$2.43865 - 1.71275I$
$u = -0.484578 - 1.315260I$ $a = 0.434565 + 0.649908I$ $b = -1.216860 + 0.709160I$	$4.52125 - 2.53747I$	$2.43865 + 1.71275I$
$u = 1.52705 + 0.88894I$ $a = -0.014991 + 0.572943I$ $b = -1.00664 + 1.21018I$	$3.00704 - 5.40399I$	$-1.47702 + 8.56336I$
$u = 1.52705 - 0.88894I$ $a = -0.014991 - 0.572943I$ $b = -1.00664 - 1.21018I$	$3.00704 + 5.40399I$	$-1.47702 - 8.56336I$
$u = 0.021881 + 0.164630I$ $a = -1.82275 + 3.64426I$ $b = -1.216860 - 0.709160I$	$4.52125 + 2.53747I$	$2.43865 - 1.71275I$
$u = 0.021881 - 0.164630I$ $a = -1.82275 - 3.64426I$ $b = -1.216860 + 0.709160I$	$4.52125 - 2.53747I$	$2.43865 + 1.71275I$
$u = -1.63601 + 1.50675I$ $a = 0.001439 + 0.368895I$ $b = 0.492148 + 0.450600I$	$-0.39191 + 6.22910I$	$-3.95991 - 11.28166I$
$u = -1.63601 - 1.50675I$ $a = 0.001439 - 0.368895I$ $b = 0.492148 - 0.450600I$	$-0.39191 - 6.22910I$	$-3.95991 + 11.28166I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.88393 + 1.22339I$	$-2.20294 - 4.46082I$	$-11.64801 + 4.72827I$
$a = -0.139202 + 0.262568I$		
$b = -0.096849 + 0.815314I$		
$u = -1.88393 - 1.22339I$	$-2.20294 + 4.46082I$	$-11.64801 - 4.72827I$
$a = -0.139202 - 0.262568I$		
$b = -0.096849 - 0.815314I$		
$u = 1.90087 + 1.52654I$	$-5.22591 - 0.91968I$	$-15.5307 + 7.1820I$
$a = -0.051888 - 0.269749I$		
$b = 0.225615 - 0.583583I$		
$u = 1.90087 - 1.52654I$	$-5.22591 + 0.91968I$	$-15.5307 - 7.1820I$
$a = -0.051888 + 0.269749I$		
$b = 0.225615 + 0.583583I$		

$$\text{III. } I_3^u = \langle -u^2 + b + 1, u^8 - u^7 - 2u^6 + u^5 + 3u^4 - 4u^2 + a + u + 2, u^9 - 2u^7 - u^6 + 2u^5 + 2u^4 - 2u^3 - u^2 + u + 1 \rangle$$

(i) Arc colorings

$$\begin{aligned} a_2 &= \begin{pmatrix} 1 \\ 0 \end{pmatrix} \\ a_8 &= \begin{pmatrix} 0 \\ u \end{pmatrix} \\ a_3 &= \begin{pmatrix} 1 \\ u^2 \end{pmatrix} \\ a_5 &= \begin{pmatrix} -u^8 + u^7 + 2u^6 - u^5 - 3u^4 + 4u^2 - u - 2 \\ u^2 - 1 \end{pmatrix} \\ a_6 &= \begin{pmatrix} -u^8 + u^7 + 2u^6 - u^5 - 3u^4 + 3u^2 - u - 2 \\ -u^4 + u^2 - 1 \end{pmatrix} \\ a_9 &= \begin{pmatrix} -2u^8 + u^7 + 3u^6 - 3u^4 - u^3 + 4u^2 - 2u - 1 \\ -u^8 + 2u^6 + u^5 - 2u^4 - 2u^3 + 2u^2 + u - 1 \end{pmatrix} \\ a_1 &= \begin{pmatrix} u^8 - 2u^7 - u^6 + 2u^5 + 2u^4 - u^3 - 3u^2 + 3u \\ u^8 - u^7 - 2u^6 + u^5 + 3u^4 - 4u^2 + u + 2 \end{pmatrix} \\ a_4 &= \begin{pmatrix} -u^8 + u^7 + 2u^6 - u^5 - 3u^4 + 3u^2 - u - 1 \\ u^2 - 1 \end{pmatrix} \\ a_{10} &= \begin{pmatrix} -u^8 + u^7 + u^6 - u^5 - u^4 + 2u^2 - 2u \\ -u^8 + 2u^6 + u^5 - 2u^4 - u^3 + 2u^2 - 1 \end{pmatrix} \\ a_{11} &= \begin{pmatrix} -u^8 + u^7 + u^6 - u^5 - u^4 + 2u^2 - 2u \\ -2u^8 + 4u^6 + u^5 - 4u^4 - 2u^3 + 4u^2 - 2 \end{pmatrix} \\ a_7 &= \begin{pmatrix} 2u^8 - 4u^6 - u^5 + 4u^4 + 3u^3 - 5u^2 - u + 3 \\ u^7 - u^6 - u^5 + u^3 + u^2 - 2u + 1 \end{pmatrix} \\ a_7 &= \begin{pmatrix} 2u^8 - 4u^6 - u^5 + 4u^4 + 3u^3 - 5u^2 - u + 3 \\ u^7 - u^6 - u^5 + u^3 + u^2 - 2u + 1 \end{pmatrix} \end{aligned}$$

(ii) Obstruction class = 1

$$\text{(iii) Cusp Shapes} = 6u^7 - 2u^6 - 7u^5 - 4u^4 + 7u^3 + 8u^2 - 9u$$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_8	$u^9 + u^8 - u^7 - 2u^6 + 2u^5 + 2u^4 - u^3 - 2u^2 + 1$
c_2, c_9	$u^9 - 2u^7 - u^6 + 2u^5 + 2u^4 - 2u^3 - u^2 + u + 1$
c_3, c_5	$u^9 + 4u^8 + 8u^7 + 13u^6 + 18u^5 + 18u^4 + 14u^3 + 9u^2 + 3u + 1$
c_4	$u^9 - 5u^8 + 12u^7 - 15u^6 + 10u^5 - 3u^4 + 2u^3 - 2u^2 + 1$
c_6, c_7	$u^9 - 2u^8 + 7u^7 - 10u^6 + 16u^5 - 16u^4 + 13u^3 - 9u^2 + 2u - 1$
c_{10}, c_{11}	$u^9 + 2u^8 + 7u^7 + 10u^6 + 16u^5 + 16u^4 + 13u^3 + 9u^2 + 2u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_8	$y^9 - 3y^8 + 9y^7 - 14y^6 + 18y^5 - 18y^4 + 13y^3 - 8y^2 + 4y - 1$
c_2, c_9	$y^9 - 4y^8 + 8y^7 - 13y^6 + 18y^5 - 18y^4 + 14y^3 - 9y^2 + 3y - 1$
c_3, c_5	$y^9 - 4y^7 + 3y^6 + 14y^5 - 14y^4 - 46y^3 - 33y^2 - 9y - 1$
c_4	$y^9 - y^8 + 14y^7 - 11y^6 + 38y^5 - 19y^4 + 22y^3 + 2y^2 + 4y - 1$
c_6, c_7, c_{10} c_{11}	$y^9 + 10y^8 + 41y^7 + 86y^6 + 86y^5 + 4y^4 - 75y^3 - 61y^2 - 14y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.697125 + 0.630614I$ $a = -0.113094 + 1.126000I$ $b = -0.911691 + 0.879233I$	$1.14384 - 3.68908I$	$0.51130 + 5.82682I$
$u = 0.697125 - 0.630614I$ $a = -0.113094 - 1.126000I$ $b = -0.911691 - 0.879233I$	$1.14384 + 3.68908I$	$0.51130 - 5.82682I$
$u = -0.706353 + 0.887392I$ $a = 0.174357 - 0.757557I$ $b = -1.28853 - 1.25362I$	$3.87432 + 3.77454I$	$-0.80820 - 6.90291I$
$u = -0.706353 - 0.887392I$ $a = 0.174357 + 0.757557I$ $b = -1.28853 + 1.25362I$	$3.87432 - 3.77454I$	$-0.80820 + 6.90291I$
$u = -1.20053$ $a = -0.693833$ $b = 0.441270$	-4.78668	-8.18270
$u = 1.180420 + 0.249688I$ $a = -0.628101 + 0.278164I$ $b = 0.331044 + 0.589474I$	$-0.89563 - 5.00672I$	$-4.18305 + 4.27017I$
$u = 1.180420 - 0.249688I$ $a = -0.628101 - 0.278164I$ $b = 0.331044 - 0.589474I$	$-0.89563 + 5.00672I$	$-4.18305 - 4.27017I$
$u = -0.570926 + 0.421204I$ $a = -0.58625 - 1.89814I$ $b = -0.851457 - 0.480952I$	$8.14041 + 4.21823I$	$7.07132 - 5.34400I$
$u = -0.570926 - 0.421204I$ $a = -0.58625 + 1.89814I$ $b = -0.851457 + 0.480952I$	$8.14041 - 4.21823I$	$7.07132 + 5.34400I$

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_8	$(u^9 + u^8 + \dots - 2u^2 + 1)(u^{22} - u^{21} + \dots - u + 1)$ $\cdot (u^{24} - 3u^{23} + \dots - 12u + 5)$
c_2, c_9	$(u^9 - 2u^7 - u^6 + 2u^5 + 2u^4 - 2u^3 - u^2 + u + 1)$ $\cdot (u^{22} - 4u^{20} + \dots + 14u + 5)(u^{24} - u^{23} + \dots + 14u + 11)$
c_3, c_5	$(u^9 + 4u^8 + 8u^7 + 13u^6 + 18u^5 + 18u^4 + 14u^3 + 9u^2 + 3u + 1)$ $\cdot (u^{22} + 2u^{21} + \dots - 2u + 1)(u^{24} + u^{23} + \dots - 188u + 145)$
c_4	$(u^9 - 5u^8 + 12u^7 - 15u^6 + 10u^5 - 3u^4 + 2u^3 - 2u^2 + 1)$ $\cdot ((u^{12} - 5u^{11} + \dots + 3u^2 + 1)^2)(u^{22} + 14u^{21} + \dots + 11u + 2)$
c_6, c_7	$(u^9 - 2u^8 + 7u^7 - 10u^6 + 16u^5 - 16u^4 + 13u^3 - 9u^2 + 2u - 1)$ $\cdot ((u^{12} + 3u^{11} + \dots - 2u + 1)^2)(u^{22} - 5u^{21} + \dots - 3u + 4)$
c_{10}, c_{11}	$(u^9 + 2u^8 + 7u^7 + 10u^6 + 16u^5 + 16u^4 + 13u^3 + 9u^2 + 2u + 1)$ $\cdot ((u^{12} + 3u^{11} + \dots - 2u + 1)^2)(u^{22} - 5u^{21} + \dots - 3u + 4)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_8	$(y^9 - 3y^8 + 9y^7 - 14y^6 + 18y^5 - 18y^4 + 13y^3 - 8y^2 + 4y - 1)$ $\cdot (y^{22} + 9y^{21} + \dots + 21y + 1)(y^{24} - 5y^{23} + \dots + 116y + 25)$
c_2, c_9	$(y^9 - 4y^8 + 8y^7 - 13y^6 + 18y^5 - 18y^4 + 14y^3 - 9y^2 + 3y - 1)$ $\cdot (y^{22} - 8y^{21} + \dots - 246y + 25)(y^{24} - 9y^{23} + \dots + 7812y + 121)$
c_3, c_5	$(y^9 - 4y^7 + 3y^6 + 14y^5 - 14y^4 - 46y^3 - 33y^2 - 9y - 1)$ $\cdot (y^{22} - 28y^{21} + \dots - 10y + 1)(y^{24} - 9y^{23} + \dots - 29544y + 21025)$
c_4	$(y^9 - y^8 + 14y^7 - 11y^6 + 38y^5 - 19y^4 + 22y^3 + 2y^2 + 4y - 1)$ $\cdot ((y^{12} + y^{11} + \dots + 6y + 1)^2)(y^{22} + 36y^{20} + \dots + 71y + 4)$
c_6, c_7, c_{10} c_{11}	$(y^9 + 10y^8 + 41y^7 + 86y^6 + 86y^5 + 4y^4 - 75y^3 - 61y^2 - 14y - 1)$ $\cdot ((y^{12} + 9y^{11} + \dots - 6y + 1)^2)(y^{22} + 19y^{21} + \dots + 7y + 16)$