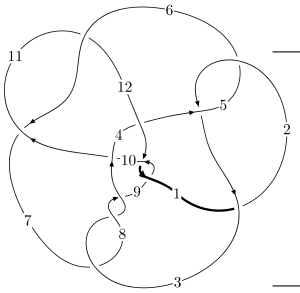
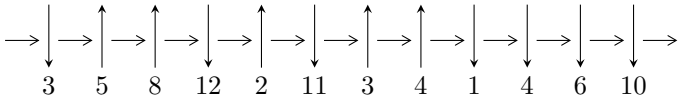
$12n_{0367}$ $(K12n_{0367})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

$$\underset{c_5}{2,6} \xrightarrow{} \underset{c_2}{5} \xrightarrow{} \underset{c_1}{3} \to \underset{c_4}{1,12} \to \underset{c_{11}}{4} \to \underset{c_6}{11} \to \underset{c_7}{7} \xrightarrow{} \underset{c_8}{8} \xrightarrow{} \underset{c_{10}}{9} \to 10 \twoheadrightarrow c_3, c_9, c_{12}$$

Ideals for irreducible components[2]of $X_{\mathbf{par}}$

$$I_1^u = \langle -1.53963 \times 10^{157} u^{87} + 2.37834 \times 10^{157} u^{86} + \cdots + 2.39381 \times 10^{157} b + 1.76070 \times 10^{157},$$
$$2.34713 \times 10^{157} u^{87} - 1.38197 \times 10^{157} u^{86} + \cdots + 2.39381 \times 10^{157} a + 1.30597 \times 10^{158},\ u^{88} + 22u^{86} + \cdots + 2u$$
$$I_2^u = \langle -104670 u^{25} + 66491 u^{24} + \cdots + 54833 b - 636383,$$
$$495202 u^{25} - 847689 u^{24} + \cdots + 54833 a + 692536,\ u^{26} - 3u^{25} + \cdots - 3u + 1 \rangle$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 114 representations.

[1]The 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`).

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

I. $\boldsymbol{I_1^u = \langle -1.54 \times 10^{157} u^{87} + 2.38 \times 10^{157} u^{86} + \cdots + 2.39 \times 10^{157} b + 1.76 \times 10^{157},\ 2.35 \times 10^{157} u^{87} - 1.38 \times 10^{157} u^{86} + \cdots + 2.39 \times 10^{157} a + 1.31 \times 10^{158},\ u^{88} + 22u^{86} + \cdots + 2u + 1 \rangle}$

(i) Arc colorings

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

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

$$a_5 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^3 \\ u^5 + u^3 + u \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.980503u^{87} + 0.577312u^{86} + \cdots - 5.19109u - 5.45563 \\ 0.643174u^{87} - 0.993539u^{86} + \cdots + 2.61924u - 0.735525 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -1.71029u^{87} + 0.0126145u^{86} + \cdots + 6.15889u - 0.333775 \\ 0.314661u^{87} - 0.105993u^{86} + \cdots + 1.28030u + 0.137825 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.337329u^{87} - 0.416227u^{86} + \cdots - 2.57184u - 6.19116 \\ 0.643174u^{87} - 0.993539u^{86} + \cdots + 2.61924u - 0.735525 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1.33512u^{87} + 0.213674u^{86} + \cdots - 8.43237u + 2.51339 \\ -0.537763u^{87} + 0.298042u^{86} + \cdots - 2.98445u - 0.0534571 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1.40782u^{87} + 0.124868u^{86} + \cdots - 7.03532u + 2.37329 \\ -0.415885u^{87} + 0.204932u^{86} + \cdots - 1.48248u - 0.104746 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.297558u^{87} + 0.610697u^{86} + \cdots - 1.00875u + 4.31265 \\ -0.434217u^{87} + 0.436621u^{86} + \cdots - 1.53241u + 0.242672 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.195621u^{87} - 0.814050u^{86} + \cdots + 0.450308u - 4.69598 \\ 0.281328u^{87} - 0.153582u^{86} + \cdots + 2.43945u + 0.00833811 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -1.98512u^{87} + 0.111068u^{86} + \cdots + 1.77043u - 2.63654$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{88}+44u^{87}+\cdots-14u+1$
c_2, c_5	$u^{88}+22u^{86}+\cdots+2u+1$
c_3, c_7, c_8	$u^{88}+u^{87}+\cdots+4537u+653$
c_4	$u^{88}+u^{87}+\cdots-6282u+3780$
c_6, c_{11}	$u^{88}-3u^{87}+\cdots-34779u+4553$
c_9, c_{12}	$u^{88}-3u^{87}+\cdots-5791u+1003$
c_{10}	$u^{88}-u^{87}+\cdots+33861u+11617$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{88} + 16y^{87} + \cdots + 38y + 1$
c_2, c_5	$y^{88} + 44y^{87} + \cdots - 14y + 1$
c_3, c_7, c_8	$y^{88} - 39y^{87} + \cdots - 16718609y + 426409$
c_4	$y^{88} + 47y^{87} + \cdots + 424002276y + 14288400$
c_6, c_{11}	$y^{88} + 47y^{87} + \cdots + 457119657y + 20729809$
c_9, c_{12}	$y^{88} + 37y^{87} + \cdots + 28963255y + 1006009$
c_{10}	$y^{88} - 13y^{87} + \cdots - 5986209521y + 134954689$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.950994 + 0.225023I$ $a = -0.0042485 + 0.1234880I$ $b = -0.494741 - 1.159590I$	$2.20661 - 4.50051I$	0
$u = \quad 0.950994 - 0.225023I$ $a = -0.0042485 - 0.1234880I$ $b = -0.494741 + 1.159590I$	$2.20661 + 4.50051I$	0
$u = \quad 0.285666 + 0.999025I$ $a = -1.271540 - 0.078839I$ $b = \quad 0.527665 + 0.001231I$	$-0.94739 + 2.27872I$	0
$u = \quad 0.285666 - 0.999025I$ $a = -1.271540 + 0.078839I$ $b = \quad 0.527665 - 0.001231I$	$-0.94739 - 2.27872I$	0
$u = -0.925529 + 0.492184I$ $a = -0.0605045 + 0.0712789I$ $b = -0.599977 + 1.165180I$	$1.40800 + 4.49923I$	0
$u = -0.925529 - 0.492184I$ $a = -0.0605045 - 0.0712789I$ $b = -0.599977 - 1.165180I$	$1.40800 - 4.49923I$	0
$u = -0.432052 + 0.965201I$ $a = \quad 2.14505 + 0.62032I$ $b = -0.210712 - 1.326370I$	$4.71577 - 4.97810I$	0
$u = -0.432052 - 0.965201I$ $a = \quad 2.14505 - 0.62032I$ $b = -0.210712 + 1.326370I$	$4.71577 + 4.97810I$	0
$u = \quad 0.403742 + 0.986207I$ $a = \quad 1.42705 + 0.78190I$ $b = -1.24697 - 0.68296I$	$-2.68120 + 2.73860I$	0
$u = \quad 0.403742 - 0.986207I$ $a = \quad 1.42705 - 0.78190I$ $b = -1.24697 + 0.68296I$	$-2.68120 - 2.73860I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.495500+0.945563I$ $a=-1.87127-0.61725I$ $b=\ \ 0.44695+1.42224I$	$5.23357-0.17704I$	0
$u=-0.495500-0.945563I$ $a=-1.87127+0.61725I$ $b=\ \ 0.44695-1.42224I$	$5.23357+0.17704I$	0
$u=\ \ 0.916402+0.070900I$ $a=-0.293096-0.421980I$ $b=\ \ 0.038009-1.374640I$	$6.89951+0.18727I$	$7.38962+0.I$
$u=\ \ 0.916402-0.070900I$ $a=-0.293096+0.421980I$ $b=\ \ 0.038009+1.374640I$	$6.89951-0.18727I$	$7.38962+0.I$
$u=-0.362440+1.049730I$ $a=\ \ 1.47595-0.54699I$ $b=-0.685813-0.954186I$	$-4.05142-3.40776I$	0
$u=-0.362440-1.049730I$ $a=\ \ 1.47595+0.54699I$ $b=-0.685813+0.954186I$	$-4.05142+3.40776I$	0
$u=\ \ 0.830410+0.267292I$ $a=-0.154904-0.043619I$ $b=\ \ 0.434261+0.771534I$	$1.041510+0.827983I$	$1.47393-1.48857I$
$u=\ \ 0.830410-0.267292I$ $a=-0.154904+0.043619I$ $b=\ \ 0.434261-0.771534I$	$1.041510-0.827983I$	$1.47393+1.48857I$
$u=-0.482044+0.714046I$ $a=\ \ 0.501977+0.389736I$ $b=\ \ 0.18713-1.65749I$	$5.99785-3.85058I$	$2.05614+7.78115I$
$u=-0.482044-0.714046I$ $a=\ \ 0.501977-0.389736I$ $b=\ \ 0.18713+1.65749I$	$5.99785+3.85058I$	$2.05614-7.78115I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.530443 + 1.007740I$ $a = 0.833164 + 0.920449I$ $b = -0.421505 + 1.042970I$	$-1.79639 + 3.12241I$	0
$u = 0.530443 - 1.007740I$ $a = 0.833164 - 0.920449I$ $b = -0.421505 - 1.042970I$	$-1.79639 - 3.12241I$	0
$u = -0.289666 + 1.102280I$ $a = -1.158050 + 0.650210I$ $b = 0.606326 + 0.743837I$	$-3.08768 + 2.63543I$	0
$u = -0.289666 - 1.102280I$ $a = -1.158050 - 0.650210I$ $b = 0.606326 - 0.743837I$	$-3.08768 - 2.63543I$	0
$u = -1.070320 + 0.410063I$ $a = -0.0461963 - 0.0452036I$ $b = 0.560313 - 1.284340I$	$4.31681 + 10.86790I$	0
$u = -1.070320 - 0.410063I$ $a = -0.0461963 + 0.0452036I$ $b = 0.560313 + 1.284340I$	$4.31681 - 10.86790I$	0
$u = -0.443590 + 1.065640I$ $a = 1.65905 + 1.05131I$ $b = -0.161908 - 0.797457I$	$6.47178 - 2.16309I$	0
$u = -0.443590 - 1.065640I$ $a = 1.65905 - 1.05131I$ $b = -0.161908 + 0.797457I$	$6.47178 + 2.16309I$	0
$u = 0.382878 + 1.090750I$ $a = -1.010260 - 0.717946I$ $b = 0.944931 + 0.886998I$	$-2.05368 - 1.85448I$	0
$u = 0.382878 - 1.090750I$ $a = -1.010260 + 0.717946I$ $b = 0.944931 - 0.886998I$	$-2.05368 + 1.85448I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \ 0.260391 + 0.792542I$ $a = \ 2.02389 + 0.11691I$ $b = -1.214820 - 0.002643I$	$-1.73937 + 0.22136I$	$1.85602 + 1.46273I$
$u = \ 0.260391 - 0.792542I$ $a = \ 2.02389 - 0.11691I$ $b = -1.214820 + 0.002643I$	$-1.73937 - 0.22136I$	$1.85602 - 1.46273I$
$u = -0.528314 + 1.040610I$ $a = \ 0.932239 - 0.854300I$ $b = -1.269650 + 0.553169I$	$-2.98847 - 3.16275I$	0
$u = -0.528314 - 1.040610I$ $a = \ 0.932239 + 0.854300I$ $b = -1.269650 - 0.553169I$	$-2.98847 + 3.16275I$	0
$u = -0.396057 + 0.732711I$ $a = -0.617862 + 0.433950I$ $b = -0.07362 + 1.57635I$	$5.53692 + 1.45907I$	$2.09471 + 3.45616I$
$u = -0.396057 - 0.732711I$ $a = -0.617862 - 0.433950I$ $b = -0.07362 - 1.57635I$	$5.53692 - 1.45907I$	$2.09471 - 3.45616I$
$u = \ 0.510718 + 0.654379I$ $a = -1.76586 - 0.92046I$ $b = -0.131347 - 0.554336I$	$-0.621825 + 1.176960I$	$1.91177 - 2.19037I$
$u = \ 0.510718 - 0.654379I$ $a = -1.76586 + 0.92046I$ $b = -0.131347 + 0.554336I$	$-0.621825 - 1.176960I$	$1.91177 + 2.19037I$
$u = -0.518141 + 1.051120I$ $a = -1.72372 - 0.55922I$ $b = \ 0.701048 + 0.820542I$	$7.07769 - 4.63089I$	0
$u = -0.518141 - 1.051120I$ $a = -1.72372 + 0.55922I$ $b = \ 0.701048 - 0.820542I$	$7.07769 + 4.63089I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.501882 + 1.071530I$ $a = -1.31410 - 0.80647I$ $b = 0.467396 - 1.172060I$	$-1.27822 + 8.90820I$	0
$u = 0.501882 - 1.071530I$ $a = -1.31410 + 0.80647I$ $b = 0.467396 + 1.172060I$	$-1.27822 - 8.90820I$	0
$u = -0.482338 + 0.637957I$ $a = 1.44483 - 1.47393I$ $b = -1.153420 - 0.226060I$	$-1.56364 - 1.06781I$	$6.03726 - 6.31171I$
$u = -0.482338 - 0.637957I$ $a = 1.44483 + 1.47393I$ $b = -1.153420 + 0.226060I$	$-1.56364 + 1.06781I$	$6.03726 + 6.31171I$
$u = -0.536856 + 1.087540I$ $a = -1.24526 + 0.71064I$ $b = 1.350980 - 0.346633I$	$-1.50727 - 9.89367I$	0
$u = -0.536856 - 1.087540I$ $a = -1.24526 - 0.71064I$ $b = 1.350980 + 0.346633I$	$-1.50727 + 9.89367I$	0
$u = -0.883478 + 0.861213I$ $a = -0.009652 + 0.170471I$ $b = 0.556256 - 1.001050I$	$7.46659 - 0.54060I$	0
$u = -0.883478 - 0.861213I$ $a = -0.009652 - 0.170471I$ $b = 0.556256 + 1.001050I$	$7.46659 + 0.54060I$	0
$u = -0.837273 + 0.948164I$ $a = -1.257530 + 0.545736I$ $b = 0.719500 + 0.965996I$	$7.18578 - 5.81942I$	0
$u = -0.837273 - 0.948164I$ $a = -1.257530 - 0.545736I$ $b = 0.719500 - 0.965996I$	$7.18578 + 5.81942I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.093394+1.287980I$ $a=\ 0.674153-0.800344I$ $b=-0.687759+0.678198I$	$-4.89915+1.81520I$	0
$u=-0.093394-1.287980I$ $a=\ 0.674153+0.800344I$ $b=-0.687759-0.678198I$	$-4.89915-1.81520I$	0
$u=-0.470843+0.518883I$ $a=-0.904417+0.769983I$ $b=\ 0.440872-1.243470I$	$8.74330+0.43774I$	$8.09934-2.16625I$
$u=-0.470843-0.518883I$ $a=-0.904417-0.769983I$ $b=\ 0.440872+1.243470I$	$8.74330-0.43774I$	$8.09934+2.16625I$
$u=\ 0.584887+1.181660I$ $a=-1.53011+0.00453I$ $b=\ 0.758108-0.967143I$	$-1.65727+4.47065I$	0
$u=\ 0.584887-1.181660I$ $a=-1.53011-0.00453I$ $b=\ 0.758108+0.967143I$	$-1.65727-4.47065I$	0
$u=\ 0.601233+0.293144I$ $a=-0.304130-0.031403I$ $b=\ 0.183401+0.517058I$	$1.13886+0.89704I$	$3.89050-2.59952I$
$u=\ 0.601233-0.293144I$ $a=-0.304130+0.031403I$ $b=\ 0.183401-0.517058I$	$1.13886-0.89704I$	$3.89050+2.59952I$
$u=-0.688717+1.143690I$ $a=\ 1.62676-0.18674I$ $b=-0.79192-1.26585I$	$-0.58678-10.44900I$	0
$u=-0.688717-1.143690I$ $a=\ 1.62676+0.18674I$ $b=-0.79192+1.26585I$	$-0.58678+10.44900I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.568898+0.324756I$ $a=-0.92706+1.71911I$ $b=\ \ 0.982482+0.018370I$	$0.60435+5.38463I$	$2.42475-4.14005I$
$u=-0.568898-0.324756I$ $a=-0.92706-1.71911I$ $b=\ \ 0.982482-0.018370I$	$0.60435-5.38463I$	$2.42475+4.14005I$
$u=\ \ 0.317693+1.306880I$ $a=-0.443125-0.770098I$ $b=\ \ 0.577322+0.400301I$	$-3.73728+4.73037I$	0
$u=\ \ 0.317693-1.306880I$ $a=-0.443125+0.770098I$ $b=\ \ 0.577322-0.400301I$	$-3.73728-4.73037I$	0
$u=\ \ 0.558864+1.226700I$ $a=-1.329560+0.240552I$ $b=\ \ 0.269392-1.306580I$	$3.23539+5.35337I$	0
$u=\ \ 0.558864-1.226700I$ $a=-1.329560-0.240552I$ $b=\ \ 0.269392+1.306580I$	$3.23539-5.35337I$	0
$u=\ \ 0.595060+1.211340I$ $a=\ \ 1.61825-0.21648I$ $b=-0.81450+1.21464I$	$-0.76474+10.05920I$	0
$u=\ \ 0.595060-1.211340I$ $a=\ \ 1.61825+0.21648I$ $b=-0.81450-1.21464I$	$-0.76474-10.05920I$	0
$u=-0.294632+0.568517I$ $a=\ \ 1.51039+0.73610I$ $b=-0.028348+1.231060I$	$8.24712-1.28370I$	$4.65282+4.56414I$
$u=-0.294632-0.568517I$ $a=\ \ 1.51039-0.73610I$ $b=-0.028348-1.231060I$	$8.24712+1.28370I$	$4.65282-4.56414I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.623842 + 1.214480I$ $a = 1.075840 - 0.392993I$ $b = -0.30418 + 1.39046I$	$3.66108 + 5.36800I$	0
$u = 0.623842 - 1.214480I$ $a = 1.075840 + 0.392993I$ $b = -0.30418 - 1.39046I$	$3.66108 - 5.36800I$	0
$u = 1.123010 + 0.810467I$ $a = -0.0751096 - 0.1045390I$ $b = -0.024807 - 1.008540I$	$6.81941 + 3.42608I$	0
$u = 1.123010 - 0.810467I$ $a = -0.0751096 + 0.1045390I$ $b = -0.024807 + 1.008540I$	$6.81941 - 3.42608I$	0
$u = 0.970073 + 1.006650I$ $a = 0.823943 + 0.304573I$ $b = -0.125707 + 0.872027I$	$6.19117 + 3.97335I$	0
$u = 0.970073 - 1.006650I$ $a = 0.823943 - 0.304573I$ $b = -0.125707 - 0.872027I$	$6.19117 - 3.97335I$	0
$u = -0.694895 + 1.214520I$ $a = -1.62709 - 0.01434I$ $b = 0.73871 + 1.36337I$	$1.7998 - 17.1939I$	0
$u = -0.694895 - 1.214520I$ $a = -1.62709 + 0.01434I$ $b = 0.73871 - 1.36337I$	$1.7998 + 17.1939I$	0
$u = 0.31799 + 1.38757I$ $a = -0.057553 + 0.871947I$ $b = -0.319947 - 0.722892I$	$-3.04754 - 0.05132I$	0
$u = 0.31799 - 1.38757I$ $a = -0.057553 - 0.871947I$ $b = -0.319947 + 0.722892I$	$-3.04754 + 0.05132I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.367116 + 0.434526I$ $a = 2.30266 + 2.31278I$ $b = 0.317228 + 0.674134I$	$0.68475 - 4.86775I$	$4.54514 + 2.43592I$
$u = 0.367116 - 0.434526I$ $a = 2.30266 - 2.31278I$ $b = 0.317228 - 0.674134I$	$0.68475 + 4.86775I$	$4.54514 - 2.43592I$
$u = -0.08440 + 1.49734I$ $a = -0.343432 + 0.798912I$ $b = 0.422587 - 0.904167I$	$-2.72050 + 6.74128I$	0
$u = -0.08440 - 1.49734I$ $a = -0.343432 - 0.798912I$ $b = 0.422587 + 0.904167I$	$-2.72050 - 6.74128I$	0
$u = 0.214717 + 0.168571I$ $a = -5.72982 - 2.26422I$ $b = 0.710194 - 0.502307I$	$0.63011 + 5.03685I$	$5.17161 - 7.47590I$
$u = 0.214717 - 0.168571I$ $a = -5.72982 + 2.26422I$ $b = 0.710194 + 0.502307I$	$0.63011 - 5.03685I$	$5.17161 + 7.47590I$
$u = -0.268639 + 0.033317I$ $a = -0.99972 - 2.83584I$ $b = -0.679398 - 0.233762I$	$-1.43149 - 0.62686I$	$-4.31332 - 0.35363I$
$u = -0.268639 - 0.033317I$ $a = -0.99972 + 2.83584I$ $b = -0.679398 + 0.233762I$	$-1.43149 + 0.62686I$	$-4.31332 + 0.35363I$

II.

$\boldsymbol{I_2^u = \langle -1.05\times 10^5 u^{25} + 6.65\times 10^4 u^{24} + \cdots + 5.48\times 10^4 b - 6.36\times 10^5,\ 4.95\times 10^5 u^{25} - 8.48\times 10^5 u^{24} + \cdots + 5.48\times 10^4 a + 6.93\times 10^5,\ u^{26} - 3u^{25} + \cdots - 3u + 1\rangle}$

(i) Arc colorings

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

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

$$a_5 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^3 \\ u^5 + u^3 + u \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -9.03109u^{25} + 15.4595u^{24} + \cdots + 28.9086u - 12.6299 \\ 1.90889u^{25} - 1.21261u^{24} + \cdots - 18.5745u + 11.6058 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -1.97202u^{25} + 5.04526u^{24} + \cdots - 31.6703u + 3.21190 \\ -5.06120u^{25} + 13.9701u^{24} + \cdots - 19.3107u + 2.08271 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -7.12221u^{25} + 14.2469u^{24} + \cdots + 10.3341u - 1.02407 \\ 1.90889u^{25} - 1.21261u^{24} + \cdots - 18.5745u + 11.6058 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 6.85087u^{25} - 13.8176u^{24} + \cdots - 7.50338u + 14.9467 \\ 6.73507u^{25} - 18.2383u^{24} + \cdots + 33.4994u - 6.85087 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 5.63734u^{25} - 10.5724u^{24} + \cdots - 18.6043u + 19.0080 \\ 5.90889u^{25} - 15.2126u^{24} + \cdots + 22.4255u - 2.39416 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 4.33626u^{25} - 13.9840u^{24} + \cdots + 32.1079u - 2.15582 \\ 3.54135u^{25} - 8.59346u^{24} + \cdots + 4.17579u + 0.0312768 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 4.60609u^{25} - 15.9724u^{24} + \cdots + 36.0640u - 3.30234 \\ 2.65220u^{25} - 5.39325u^{24} + \cdots - 0.997556u - 0.303850 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -\frac{2984097}{54833}u^{25} + \frac{8864634}{54833}u^{24} + \cdots - \frac{12116723}{54833}u + \frac{2482104}{54833}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{26} - 15u^{25} + \cdots - 19u + 1$
c_2	$u^{26} + 3u^{25} + \cdots + 3u + 1$
c_3	$u^{26} - 10u^{24} + \cdots + 2u + 1$
c_4	$u^{26} + 11u^{24} + \cdots + 2u + 1$
c_5	$u^{26} - 3u^{25} + \cdots - 3u + 1$
c_6	$u^{26} - 2u^{25} + \cdots - 2u + 1$
c_7, c_8	$u^{26} - 10u^{24} + \cdots - 2u + 1$
c_9	$u^{26} - 4u^{25} + \cdots - 4u + 1$
c_{10}	$u^{26} + 3u^{24} + \cdots - 116u + 73$
c_{11}	$u^{26} + 2u^{25} + \cdots + 2u + 1$
c_{12}	$u^{26} + 4u^{25} + \cdots + 4u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{26} + 7y^{25} + \cdots - y + 1$
c_2, c_5	$y^{26} + 15y^{25} + \cdots + 19y + 1$
c_3, c_7, c_8	$y^{26} - 20y^{25} + \cdots - 16y + 1$
c_4	$y^{26} + 22y^{25} + \cdots + 2y + 1$
c_6, c_{11}	$y^{26} + 18y^{25} + \cdots - 2y + 1$
c_9, c_{12}	$y^{26} + 16y^{25} + \cdots + 12y + 1$
c_{10}	$y^{26} + 6y^{25} + \cdots - 16376y + 5329$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.744693+0.730481I$ $a=-0.326891-0.049826I$ $b=\ \ 0.158314-1.174790I$	$9.92859-1.94515I$	$8.05557+3.20063I$
$u=-0.744693-0.730481I$ $a=-0.326891+0.049826I$ $b=\ \ 0.158314+1.174790I$	$9.92859+1.94515I$	$8.05557-3.20063I$
$u=\ \ 0.281526+0.879742I$ $a=-1.78119-0.53161I$ $b=\ \ 1.052870+0.243603I$	$-2.07048+1.35786I$	$-2.25789-3.84059I$
$u=\ \ 0.281526-0.879742I$ $a=-1.78119+0.53161I$ $b=\ \ 1.052870-0.243603I$	$-2.07048-1.35786I$	$-2.25789+3.84059I$
$u=-0.396708+1.055220I$ $a=\ \ 1.84102+1.11968I$ $b=-0.381175-1.017610I$	$6.60029-3.05480I$	$3.39325+5.25796I$
$u=-0.396708-1.055220I$ $a=\ \ 1.84102-1.11968I$ $b=-0.381175+1.017610I$	$6.60029+3.05480I$	$3.39325-5.25796I$
$u=\ \ 0.976532+0.651379I$ $a=-0.332917-0.030871I$ $b=-0.213369-1.266720I$	$7.24258+2.16991I$	$7.60959-1.89210I$
$u=\ \ 0.976532-0.651379I$ $a=-0.332917+0.030871I$ $b=-0.213369+1.266720I$	$7.24258-2.16991I$	$7.60959+1.89210I$
$u=\ \ 0.367690+0.692493I$ $a=-1.84886-1.52160I$ $b=\ \ 0.937404-0.046899I$	$-1.83720+1.38527I$	$-8.37699-7.73251I$
$u=\ \ 0.367690-0.692493I$ $a=-1.84886+1.52160I$ $b=\ \ 0.937404+0.046899I$	$-1.83720-1.38527I$	$-8.37699+7.73251I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.309700+0.709984I$ $a=\ \ 0.864898+0.466942I$ $b=-0.253810+1.324560I$	$7.93378+0.00198I$	$0.780962+1.140220I$
$u=-0.309700-0.709984I$ $a=\ \ 0.864898-0.466942I$ $b=-0.253810-1.324560I$	$7.93378-0.00198I$	$0.780962-1.140220I$
$u=\ \ 0.201539+1.209020I$ $a=-0.172083+0.281633I$ $b=\ \ 0.525636-0.000472I$	$-3.65287+0.80825I$	$-3.25539-1.80542I$
$u=\ \ 0.201539-1.209020I$ $a=-0.172083-0.281633I$ $b=\ \ 0.525636+0.000472I$	$-3.65287-0.80825I$	$-3.25539+1.80542I$
$u=-0.713163+1.046300I$ $a=-1.40284-0.23800I$ $b=\ \ 0.239899+0.945977I$	$8.94234-3.65478I$	$7.25673+2.93988I$
$u=-0.713163-1.046300I$ $a=-1.40284+0.23800I$ $b=\ \ 0.239899-0.945977I$	$8.94234+3.65478I$	$7.25673-2.93988I$
$u=\ \ 0.112828+1.306440I$ $a=-0.149253-0.175433I$ $b=-0.339482+0.365880I$	$-2.89775+5.49517I$	$0.43892-4.19420I$
$u=\ \ 0.112828-1.306440I$ $a=-0.149253+0.175433I$ $b=-0.339482-0.365880I$	$-2.89775-5.49517I$	$0.43892+4.19420I$
$u=\ \ 0.513856+1.211170I$ $a=-1.268680+0.379339I$ $b=\ \ 0.257070-1.360450I$	$2.56406+5.90942I$	$-3.25373-8.58917I$
$u=\ \ 0.513856-1.211170I$ $a=-1.268680-0.379339I$ $b=\ \ 0.257070+1.360450I$	$2.56406-5.90942I$	$-3.25373+8.58917I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.013005+0.609915I$ $a=\ \ 4.12090+1.41971I$ $b=-0.630059-0.411133I$	$0.06562-5.01443I$	$-9.64012+7.22969I$
$u=-0.013005-0.609915I$ $a=\ \ 4.12090-1.41971I$ $b=-0.630059+0.411133I$	$0.06562+5.01443I$	$-9.64012-7.22969I$
$u=\ \ 0.94693+1.05296I$ $a=\ \ 0.840758+0.282706I$ $b=-0.340360+1.021250I$	$6.11694+4.83294I$	$3.37203-8.20308I$
$u=\ \ 0.94693-1.05296I$ $a=\ \ 0.840758-0.282706I$ $b=-0.340360-1.021250I$	$6.11694-4.83294I$	$3.37203+8.20308I$
$u=\ \ 0.276373+0.485038I$ $a=\ \ 1.61514+0.62744I$ $b=-0.01293+1.53881I$	$5.47733-2.25001I$	$1.37708+5.89841I$
$u=\ \ 0.276373-0.485038I$ $a=\ \ 1.61514-0.62744I$ $b=-0.01293-1.53881I$	$5.47733+2.25001I$	$1.37708-5.89841I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{26}-15u^{25}+\cdots-19u+1)(u^{88}+44u^{87}+\cdots-14u+1)$
c_2	$(u^{26}+3u^{25}+\cdots+3u+1)(u^{88}+22u^{86}+\cdots+2u+1)$
c_3	$(u^{26}-10u^{24}+\cdots+2u+1)(u^{88}+u^{87}+\cdots+4537u+653)$
c_4	$(u^{26}+11u^{24}+\cdots+2u+1)(u^{88}+u^{87}+\cdots-6282u+3780)$
c_5	$(u^{26}-3u^{25}+\cdots-3u+1)(u^{88}+22u^{86}+\cdots+2u+1)$
c_6	$(u^{26}-2u^{25}+\cdots-2u+1)(u^{88}-3u^{87}+\cdots-34779u+4553)$
c_7, c_8	$(u^{26}-10u^{24}+\cdots-2u+1)(u^{88}+u^{87}+\cdots+4537u+653)$
c_9	$(u^{26}-4u^{25}+\cdots-4u+1)(u^{88}-3u^{87}+\cdots-5791u+1003)$
c_{10}	$(u^{26}+3u^{24}+\cdots-116u+73)(u^{88}-u^{87}+\cdots+33861u+11617)$
c_{11}	$(u^{26}+2u^{25}+\cdots+2u+1)(u^{88}-3u^{87}+\cdots-34779u+4553)$
c_{12}	$(u^{26}+4u^{25}+\cdots+4u+1)(u^{88}-3u^{87}+\cdots-5791u+1003)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{26}+7y^{25}+\cdots-y+1)(y^{88}+16y^{87}+\cdots+38y+1)$
c_2, c_5	$(y^{26}+15y^{25}+\cdots+19y+1)(y^{88}+44y^{87}+\cdots-14y+1)$
c_3, c_7, c_8	$(y^{26}-20y^{25}+\cdots-16y+1)$ $\cdot(y^{88}-39y^{87}+\cdots-16718609y+426409)$
c_4	$(y^{26}+22y^{25}+\cdots+2y+1)$ $\cdot(y^{88}+47y^{87}+\cdots+424002276y+14288400)$
c_6, c_{11}	$(y^{26}+18y^{25}+\cdots-2y+1)$ $\cdot(y^{88}+47y^{87}+\cdots+457119657y+20729809)$
c_9, c_{12}	$(y^{26}+16y^{25}+\cdots+12y+1)$ $\cdot(y^{88}+37y^{87}+\cdots+28963255y+1006009)$
c_{10}	$(y^{26}+6y^{25}+\cdots-16376y+5329)$ $\cdot(y^{88}-13y^{87}+\cdots-5986209521y+134954689)$