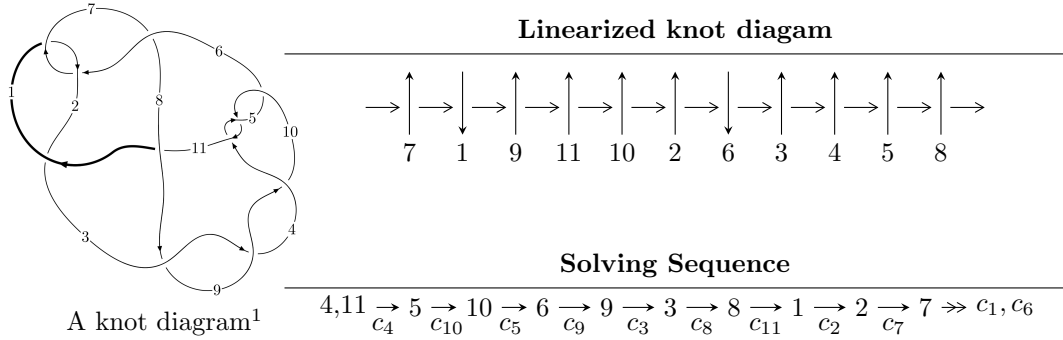


11a₂₀₇ (K11a₂₀₇)



Ideals for irreducible components² of X_{par}

$$I_1^u = \langle u^{42} + u^{41} + \dots - u - 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 42 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.

$$\text{I. } I_1^u = \langle u^{42} + u^{41} + \dots - u - 1 \rangle$$

(i) Arc colorings

$$a_4 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

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

$$a_{10} = \begin{pmatrix} -u \\ u^3 + u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} u^2 + 1 \\ -u^4 - 2u^2 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u^3 - 2u \\ u^3 + u \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -u^6 - 3u^4 - 2u^2 + 1 \\ u^6 + 2u^4 + u^2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} u^9 + 4u^7 + 5u^5 - 3u \\ -u^9 - 3u^7 - 3u^5 + u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^{19} + 8u^{17} + 26u^{15} + 40u^{13} + 19u^{11} - 24u^9 - 30u^7 + 9u^3 \\ -u^{19} - 7u^{17} - 20u^{15} - 27u^{13} - 11u^{11} + 13u^9 + 14u^7 - 3u^3 + u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -u^{32} - 13u^{30} + \dots - 2u^2 + 1 \\ u^{32} + 12u^{30} + \dots - 8u^6 + 10u^4 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} u^{15} + 6u^{13} + 14u^{11} + 14u^9 + 2u^7 - 6u^5 - 4u^3 - 2u \\ -u^{17} - 7u^{15} - 19u^{13} - 22u^{11} - 3u^9 + 14u^7 + 6u^5 - 2u^3 + u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} u^{15} + 6u^{13} + 14u^{11} + 14u^9 + 2u^7 - 6u^5 - 4u^3 - 2u \\ -u^{17} - 7u^{15} - 19u^{13} - 22u^{11} - 3u^9 + 14u^7 + 6u^5 - 2u^3 + u \end{pmatrix}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes = $-4u^{41} - 4u^{40} + \dots - 16u + 10$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{42} + u^{41} + \dots + u - 1$
c_2, c_7	$u^{42} + 13u^{41} + \dots - 7u + 1$
c_3, c_8, c_9	$u^{42} + u^{41} + \dots - 7u - 1$
c_4, c_5, c_{10}	$u^{42} - u^{41} + \dots + u - 1$
c_{11}	$u^{42} - 5u^{41} + \dots + 536u - 112$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{42} + 13y^{41} + \dots - 7y + 1$
c_2, c_7	$y^{42} + 33y^{41} + \dots - 83y + 1$
c_3, c_8, c_9	$y^{42} - 43y^{41} + \dots + 9y + 1$
c_4, c_5, c_{10}	$y^{42} + 33y^{41} + \dots - 7y + 1$
c_{11}	$y^{42} - 15y^{41} + \dots - 104736y + 12544$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.084866 + 0.923766I$	$1.35453 - 2.76686I$	$9.42200 + 3.38146I$
$u = -0.084866 - 0.923766I$	$1.35453 + 2.76686I$	$9.42200 - 3.38146I$
$u = 0.880691 + 0.040826I$	$10.66200 + 2.16328I$	$14.13258 - 0.47169I$
$u = 0.880691 - 0.040826I$	$10.66200 - 2.16328I$	$14.13258 + 0.47169I$
$u = -0.879079 + 0.051740I$	$9.88329 - 8.13672I$	$12.75687 + 5.51016I$
$u = -0.879079 - 0.051740I$	$9.88329 + 8.13672I$	$12.75687 - 5.51016I$
$u = 0.855130$	6.83608	14.4990
$u = -0.836220 + 0.033472I$	$3.58400 - 3.03568I$	$8.16735 + 3.88704I$
$u = -0.836220 - 0.033472I$	$3.58400 + 3.03568I$	$8.16735 - 3.88704I$
$u = -0.098348 + 1.233710I$	$-3.04850 - 1.58009I$	$6.29997 + 4.16737I$
$u = -0.098348 - 1.233710I$	$-3.04850 + 1.58009I$	$6.29997 - 4.16737I$
$u = -0.376057 + 1.243220I$	$-0.153213 - 1.320920I$	$4.68472 + 0.I$
$u = -0.376057 - 1.243220I$	$-0.153213 + 1.320920I$	$4.68472 + 0.I$
$u = -0.425057 + 1.229040I$	$6.25079 + 3.47148I$	$9.66765 + 0.I$
$u = -0.425057 - 1.229040I$	$6.25079 - 3.47148I$	$9.66765 + 0.I$
$u = 0.424115 + 1.240230I$	$6.95625 + 2.50407I$	$10.88098 + 0.I$
$u = 0.424115 - 1.240230I$	$6.95625 - 2.50407I$	$10.88098 + 0.I$
$u = -0.195205 + 1.297820I$	$-1.39593 - 2.80686I$	$6.44866 + 0.I$
$u = -0.195205 - 1.297820I$	$-1.39593 + 2.80686I$	$6.44866 + 0.I$
$u = 0.035155 + 1.315210I$	$-4.04030 - 2.27723I$	0
$u = 0.035155 - 1.315210I$	$-4.04030 + 2.27723I$	0
$u = 0.122930 + 1.316230I$	$-6.86790 + 2.94706I$	0
$u = 0.122930 - 1.316230I$	$-6.86790 - 2.94706I$	0
$u = 0.394311 + 1.273400I$	$2.88132 + 4.48173I$	$10.66614 + 0.I$
$u = 0.394311 - 1.273400I$	$2.88132 - 4.48173I$	$10.66614 + 0.I$
$u = 0.186816 + 1.325010I$	$-2.22914 + 8.22632I$	0
$u = 0.186816 - 1.325010I$	$-2.22914 - 8.22632I$	0
$u = -0.379309 + 1.296770I$	$-0.56467 - 7.40547I$	0
$u = -0.379309 - 1.296770I$	$-0.56467 + 7.40547I$	0
$u = 0.407279 + 1.306890I$	$6.45725 + 6.77734I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.407279 - 1.306890I$	$6.45725 - 6.77734I$	0
$u = -0.404155 + 1.314050I$	$5.61722 - 12.73560I$	0
$u = -0.404155 - 1.314050I$	$5.61722 + 12.73560I$	0
$u = 0.551129 + 0.261557I$	$2.69787 + 5.64894I$	$10.88515 - 7.96618I$
$u = 0.551129 - 0.261557I$	$2.69787 - 5.64894I$	$10.88515 + 7.96618I$
$u = 0.118650 + 0.596465I$	$1.34684 - 2.67555I$	$7.55600 + 2.24740I$
$u = 0.118650 - 0.596465I$	$1.34684 + 2.67555I$	$7.55600 - 2.24740I$
$u = -0.560874 + 0.207268I$	$3.23539 - 0.14490I$	$12.69254 + 2.12339I$
$u = -0.560874 - 0.207268I$	$3.23539 + 0.14490I$	$12.69254 - 2.12339I$
$u = 0.366568 + 0.310618I$	$-1.92633 + 1.23641I$	$3.06440 - 5.84978I$
$u = 0.366568 - 0.310618I$	$-1.92633 - 1.23641I$	$3.06440 + 5.84978I$
$u = -0.352081$	0.588838	16.8680

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{42} + u^{41} + \dots + u - 1$
c_2, c_7	$u^{42} + 13u^{41} + \dots - 7u + 1$
c_3, c_8, c_9	$u^{42} + u^{41} + \dots - 7u - 1$
c_4, c_5, c_{10}	$u^{42} - u^{41} + \dots + u - 1$
c_{11}	$u^{42} - 5u^{41} + \dots + 536u - 112$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{42} + 13y^{41} + \dots - 7y + 1$
c_2, c_7	$y^{42} + 33y^{41} + \dots - 83y + 1$
c_3, c_8, c_9	$y^{42} - 43y^{41} + \dots + 9y + 1$
c_4, c_5, c_{10}	$y^{42} + 33y^{41} + \dots - 7y + 1$
c_{11}	$y^{42} - 15y^{41} + \dots - 104736y + 12544$