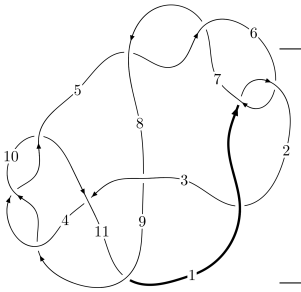
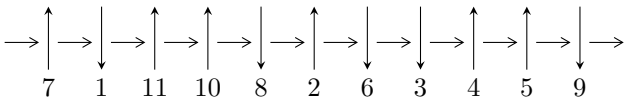
$11a_{205}$ $(K11a_{205})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle u^{45} - u^{44} + \cdots - u - 1 \rangle$$

* 1 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 45 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. $I_1^u = \langle u^{45} - u^{44} + \cdots - u - 1 \rangle$

(i) Arc colorings

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

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

$$a_{10} = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

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

$$a_9 = \begin{pmatrix} -u^2 + 1 \\ -u^4 + 2u^2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^6 - 3u^4 + 2u^2 + 1 \\ u^8 - 4u^6 + 4u^4 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -u^{17} + 8u^{15} - 25u^{13} + 36u^{11} - 19u^9 - 4u^7 + 2u^5 + 4u^3 - u \\ -u^{19} + 9u^{17} - 32u^{15} + 55u^{13} - 43u^{11} + 9u^9 + 4u^5 - u^3 + u \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -u^{10} + 5u^8 - 8u^6 + 3u^4 + u^2 + 1 \\ u^{10} - 4u^8 + 5u^6 - 2u^4 + u^2 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -u^{21} + 10u^{19} + \cdots - 2u^3 - u \\ u^{21} - 9u^{19} + 33u^{17} - 62u^{15} + 62u^{13} - 33u^{11} + 13u^9 - 6u^7 + u^5 - u^3 + u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -u^{32} + 15u^{30} + \cdots + 2u^2 + 1 \\ u^{32} - 14u^{30} + \cdots + 2u^6 - 2u^4 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -u^{32} + 15u^{30} + \cdots + 2u^2 + 1 \\ u^{32} - 14u^{30} + \cdots + 2u^6 - 2u^4 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -4u^{42} + 76u^{40} + \cdots - 4u - 2$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{45} + u^{44} + \cdots + u - 1$
c_2, c_5, c_7	$u^{45} + 11u^{44} + \cdots - u - 1$
c_3	$u^{45} + 3u^{44} + \cdots + 7u + 3$
c_4, c_9, c_{10}	$u^{45} - u^{44} + \cdots - u - 1$
c_8	$u^{45} + u^{44} + \cdots + 44u - 40$
c_{11}	$u^{45} - 9u^{44} + \cdots + 729u - 89$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{45} + 11y^{44} + \cdots - y - 1$
c_2, c_5, c_7	$y^{45} + 47y^{44} + \cdots - 9y - 1$
c_3	$y^{45} - 5y^{44} + \cdots + 31y - 9$
c_4, c_9, c_{10}	$y^{45} - 41y^{44} + \cdots - y - 1$
c_8	$y^{45} + 7y^{44} + \cdots - 11024y - 1600$
c_{11}	$y^{45} + 19y^{44} + \cdots - 92805y - 7921$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.081740+0.103222I$	$-0.55475-2.53820I$	$-1.85794+4.98062I$
$u=-1.081740-0.103222I$	$-0.55475+2.53820I$	$-1.85794-4.98062I$
$u=1.17086$	2.04246	5.49400
$u=-1.177900+0.221582I$	$5.59455-6.24371I$	$4.08567+6.12076I$
$u=-1.177900-0.221582I$	$5.59455+6.24371I$	$4.08567-6.12076I$
$u=-0.327711+0.702255I$	$5.55749-9.33109I$	$3.17264+7.99089I$
$u=-0.327711-0.702255I$	$5.55749+9.33109I$	$3.17264-7.99089I$
$u=0.336008+0.691887I$	$5.95973+3.04960I$	$4.06449-3.14119I$
$u=0.336008-0.691887I$	$5.95973-3.04960I$	$4.06449+3.14119I$
$u=1.213100+0.213850I$	$5.84619+0.30511I$	$4.74215+0.I$
$u=1.213100-0.213850I$	$5.84619-0.30511I$	$4.74215+0.I$
$u=-0.591876+0.448289I$	$6.60488+5.35917I$	$5.58298-2.28264I$
$u=-0.591876-0.448289I$	$6.60488-5.35917I$	$5.58298+2.28264I$
$u=0.568197+0.462450I$	$6.90053+0.89679I$	$6.21998-2.86996I$
$u=0.568197-0.462450I$	$6.90053-0.89679I$	$6.21998+2.86996I$
$u=-0.269512+0.670457I$	$-1.92036-5.51147I$	$-2.23282+8.80193I$
$u=-0.269512-0.670457I$	$-1.92036+5.51147I$	$-2.23282-8.80193I$
$u=-0.019331+0.669875I$	$2.10207+2.93926I$	$-0.68998-2.61803I$
$u=-0.019331-0.669875I$	$2.10207-2.93926I$	$-0.68998+2.61803I$
$u=0.283883+0.605501I$	$0.18779+2.08707I$	$3.93114-4.06148I$
$u=0.283883-0.605501I$	$0.18779-2.08707I$	$3.93114+4.06148I$
$u=-0.174737+0.630370I$	$-3.06951-0.40423I$	$-6.40296+0.79013I$
$u=-0.174737-0.630370I$	$-3.06951+0.40423I$	$-6.40296-0.79013I$
$u=1.370030+0.236669I$	$1.84057+3.53925I$	0
$u=1.370030-0.236669I$	$1.84057-3.53925I$	0
$u=1.389940+0.138970I$	$5.13702-0.60420I$	0
$u=1.389940-0.138970I$	$5.13702+0.60420I$	0
$u=-0.535574+0.250743I$	$-0.56423+2.11330I$	$1.09230-3.69401I$
$u=-0.535574-0.250743I$	$-0.56423-2.11330I$	$1.09230+3.69401I$
$u=-1.40867+0.18655I$	$6.35213-3.35003I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.40867-0.18655I$	$6.35213+3.35003I$	0
$u=-1.41039+0.23841I$	$5.60817-5.19685I$	0
$u=-1.41039-0.23841I$	$5.60817+5.19685I$	0
$u=1.40670+0.26177I$	$3.43096+8.91009I$	0
$u=1.40670-0.26177I$	$3.43096-8.91009I$	0
$u=0.346105+0.427336I$	$0.805234+0.974268I$	$6.02798-5.00492I$
$u=0.346105-0.427336I$	$0.805234-0.974268I$	$6.02798+5.00492I$
$u=1.43383+0.27147I$	$11.2002+12.8798I$	0
$u=1.43383-0.27147I$	$11.2002-12.8798I$	0
$u=-1.43584+0.26614I$	$11.63810-6.54354I$	0
$u=-1.43584-0.26614I$	$11.63810+6.54354I$	0
$u=1.45671+0.13963I$	$13.09220-3.34284I$	0
$u=1.45671-0.13963I$	$13.09220+3.34284I$	0
$u=-1.45665+0.14856I$	$13.32800-3.02786I$	0
$u=-1.45665-0.14856I$	$13.32800+3.02786I$	0

II. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_6	$u^{45} + u^{44} + \cdots + u - 1$
c_2, c_5, c_7	$u^{45} + 11u^{44} + \cdots - u - 1$
c_3	$u^{45} + 3u^{44} + \cdots + 7u + 3$
c_4, c_9, c_{10}	$u^{45} - u^{44} + \cdots - u - 1$
c_8	$u^{45} + u^{44} + \cdots + 44u - 40$
c_{11}	$u^{45} - 9u^{44} + \cdots + 729u - 89$

III. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_6	$y^{45} + 11y^{44} + \cdots - y - 1$
c_2, c_5, c_7	$y^{45} + 47y^{44} + \cdots - 9y - 1$
c_3	$y^{45} - 5y^{44} + \cdots + 31y - 9$
c_4, c_9, c_{10}	$y^{45} - 41y^{44} + \cdots - y - 1$
c_8	$y^{45} + 7y^{44} + \cdots - 11024y - 1600$
c_{11}	$y^{45} + 19y^{44} + \cdots - 92805y - 7921$