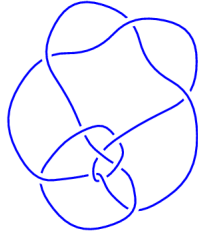
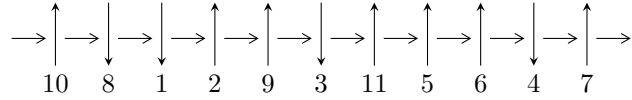


11a₂₅₅ (K11a₂₅₅)

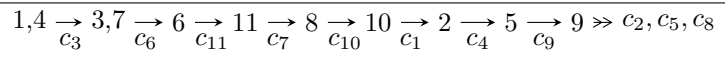


1

Arc Sequences



Solving Sequence



Representation Ideals

$$I = \bigcap_{i=1}^2 I_i^u$$

$$I_1^u = \langle u^{17} - 9u^{16} + \dots + 12u - 1, 519u^{16} - 2386u^{15} + \dots + 393a - 3191, 1763u^{16} - 14729u^{15} + \dots + 393b + 5411 \rangle$$

$$I_2^u = \langle u^{88} - 2u^{87} + \dots - 1392u + 133, 1.46858 \times 10^{390}u^{87} - 4.20199 \times 10^{390}u^{86} + \dots + 1.51443 \times 10^{390}b + 2.30629 \times 10^{392}, 2.52158 \times 10^{392}u^{87} - 7.20387 \times 10^{392}u^{86} + \dots + 2.01420 \times 10^{392}a + 3.86964 \times 10^{394} \rangle$$

There are 2 irreducible components with 105 representations.

¹The knot diagram image is adapter from “C. Livingston and A. H. Moore, KnotInfo: Table of Knot Invariants, <http://www.indiana.edu/~knotinfo>”

$$\text{I. } I_1^u = \langle u^{17} - 9u^{16} + \dots + 12u - 1, 519u^{16} - 2386u^{15} + \dots + 393a - 3191, 1763u^{16} - 14729u^{15} + \dots + 393b + 5411 \rangle$$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -1.32061u^{16} + 6.07125u^{15} + \dots - 74.9109u + 8.11959 \\ -4.48601u^{16} + 37.4784u^{15} + \dots + 111.598u - 13.7684 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 2.55725u^{16} - 25.6794u^{15} + \dots - 113.099u + 11.0382 \\ -0.608142u^{16} + 5.72774u^{15} + \dots + 73.4097u - 10.8499 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 30.7405u^{16} - 259.053u^{15} + \dots - 502.150u + 48.4936 \\ 18.6107u^{16} - 159.247u^{15} + \dots - 383.392u + 41.7405 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 11.6768u^{16} - 94.7430u^{15} + \dots - 53.2621u - 0.770992 \\ 2.39440u^{16} - 12.7913u^{15} + \dots + 262.094u - 40.6260 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 30.7405u^{16} - 259.053u^{15} + \dots - 502.150u + 48.4936 \\ 10.3613u^{16} - 87.3766u^{15} + \dots - 202.804u + 24.1298 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -u^{16} + 9u^{15} + \dots + 63u - 11 \\ -13.7684u^{16} + 119.430u^{15} + \dots + 468.954u - 63.6234 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} u^{16} - 9u^{15} + \dots - 62u + 10 \\ 9.28244u^{16} - 81.9517u^{15} + \dots - 366.356u + 49.8550 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 18.5140u^{16} - 155.855u^{15} + \dots - 302.402u + 29.8982 \\ 20.2316u^{16} - 171.903u^{15} + \dots - 426.046u + 50.0433 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 18.5140u^{16} - 155.855u^{15} + \dots - 302.402u + 29.8982 \\ 20.2316u^{16} - 171.903u^{15} + \dots - 426.046u + 50.0433 \end{pmatrix}$$

(ii) Obstruction class = 1

(iii) Cusp Shapes = unknown

(iv) Complex Volumes and Cusp Shapes

Solution to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.668036 - 1.073056I$ $a = 1.13817 + 1.30384I$ $b = 0.018927 + 0.733970I$	$6.49554 + 5.64721I$	$4.24800 - 5.28734I$
$u = -0.668036 + 1.073056I$ $a = 1.13817 - 1.30384I$ $b = 0.018927 - 0.733970I$	$6.49554 - 5.64721I$	$4.24800 + 5.28734I$
$u = -0.057733 - 0.951073I$ $a = -1.143602 - 0.306899I$ $b = -0.101023 - 0.636506I$	$0.39343 + 3.18951I$	$2.48922 - 8.07163I$
$u = -0.057733 + 0.951073I$ $a = -1.143602 + 0.306899I$ $b = -0.101023 + 0.636506I$	$0.39343 - 3.18951I$	$2.48922 + 8.07163I$
$u = 0.239180$ $a = -0.122363$ $b = -1.86405$	9.97638	-80.3957
$u = 0.337728 - 0.912764I$ $a = 0.874909 - 0.725167I$ $b = -0.343513 - 1.276775I$	$3.66769 + 6.66143I$	$4.22453 - 5.17747I$
$u = 0.337728 + 0.912764I$ $a = 0.874909 + 0.725167I$ $b = -0.343513 + 1.276775I$	$3.66769 - 6.66143I$	$4.22453 + 5.17747I$
$u = 0.493177 - 0.381587I$ $a = 0.291371 - 0.316362I$ $b = 0.932738 + 0.190257I$	$1.024425 + 0.934539I$	$3.42338 - 2.45300I$
$u = 0.493177 + 0.381587I$ $a = 0.291371 + 0.316362I$ $b = 0.932738 - 0.190257I$	$1.024425 - 0.934539I$	$3.42338 + 2.45300I$
$u = 0.643995 - 0.214476I$ $a = -1.10414 + 2.89971I$ $b = 0.185967 + 1.393160I$	$-3.91587 + 3.42072I$	$20.1307 - 16.0266I$

Solution to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.643995 + 0.214476I$ $a = -1.10414 - 2.89971I$ $b = 0.185967 - 1.393160I$	$-3.91587 - 3.42072I$	$20.1307 + 16.0266I$
$u = 0.806233 - 1.133430I$ $a = 0.141983 + 0.575675I$ $b = -0.287573 + 0.472967I$	$2.31141 + 2.16263I$	$6.33291 - 1.14130I$
$u = 0.806233 + 1.133430I$ $a = 0.141983 - 0.575675I$ $b = -0.287573 - 0.472967I$	$2.31141 - 2.16263I$	$6.33291 + 1.14130I$
$u = 1.18357 - 0.87091I$ $a = -0.447814 + 1.259982I$ $b = 0.396650 + 1.232914I$	$-3.35478 + 5.00709I$	$1.93752 - 5.36803I$
$u = 1.18357 + 0.87091I$ $a = -0.447814 - 1.259982I$ $b = 0.396650 - 1.232914I$	$-3.35478 - 5.00709I$	$1.93752 + 5.36803I$
$u = 1.64147 - 1.17117I$ $a = 0.310302 - 1.117939I$ $b = -0.370147 - 1.163037I$	$-0.09550 + 5.07949I$	$3.41161 - 6.03160I$
$u = 1.64147 + 1.17117I$ $a = 0.310302 + 1.117939I$ $b = -0.370147 + 1.163037I$	$-0.09550 - 5.07949I$	$3.41161 + 6.03160I$

$$\text{II. } I_2^u = \langle u^{88} - 2u^{87} + \dots - 1392u + 133, 1.47 \times 10^{390}u^{87} - 4.20 \times 10^{390}u^{86} + \dots + 1.51 \times 10^{390}b + 2.31 \times 10^{392}, 2.52 \times 10^{392}u^{87} - 7.20 \times 10^{392}u^{86} + \dots + 2.01 \times 10^{392}a + 3.87 \times 10^{394} \rangle$$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

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

$$a_3 = \begin{pmatrix} u \\ u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -1.25190u^{87} + 3.57655u^{86} + \dots + 2252.01u - 192.118 \\ -0.969724u^{87} + 2.77463u^{86} + \dots + 1745.52u - 152.287 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -1.05500u^{87} + 3.01877u^{86} + \dots + 1883.79u - 160.522 \\ -0.772815u^{87} + 2.21685u^{86} + \dots + 1377.30u - 120.692 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.228606u^{87} + 0.661130u^{86} + \dots + 408.990u - 37.5366 \\ -1.30383u^{87} + 3.71059u^{86} + \dots + 2357.42u - 198.540 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.0904264u^{87} - 0.237916u^{86} + \dots - 255.903u + 27.1285 \\ 0.192090u^{87} - 0.559370u^{86} + \dots - 266.292u + 13.6245 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.228606u^{87} + 0.661130u^{86} + \dots + 408.990u - 37.5366 \\ -1.12561u^{87} + 3.20022u^{86} + \dots + 2043.16u - 171.419 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -1.32235u^{87} + 3.74890u^{86} + \dots + 2380.69u - 196.322 \\ -2.21196u^{87} + 6.33383u^{86} + \dots + 4055.74u - 362.550 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.809937u^{87} + 2.30255u^{86} + \dots + 1451.57u - 118.286 \\ -1.70838u^{87} + 4.91195u^{86} + \dots + 3055.44u - 273.571 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -1.43951u^{87} + 4.12506u^{86} + \dots + 2586.00u - 227.371 \\ -2.01854u^{87} + 5.77408u^{86} + \dots + 3591.32u - 301.522 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -1.43951u^{87} + 4.12506u^{86} + \dots + 2586.00u - 227.371 \\ -2.01854u^{87} + 5.77408u^{86} + \dots + 3591.32u - 301.522 \end{pmatrix}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes = unknown

(iv) Complex Volumes and Cusp Shapes

Solution to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.35036 - 1.05778I$ $a = -0.458331 - 1.277195I$ $b = 0.59896 - 1.30787I$	$3.7463 - 17.3074I$	$4.74718 + 8.94667I$
$u = -1.35036 + 1.05778I$ $a = -0.458331 + 1.277195I$ $b = 0.59896 + 1.30787I$	$3.7463 + 17.3074I$	$4.74718 - 8.94667I$
$u = -1.31555 - 0.90486I$ $a = 0.42688 + 1.34847I$ $b = -0.59458 + 1.30691I$	$-2.63728 - 13.13357I$	$1.48177 + 9.15573I$
$u = -1.31555 + 0.90486I$ $a = 0.42688 - 1.34847I$ $b = -0.59458 - 1.30691I$	$-2.63728 + 13.13357I$	$1.48177 - 9.15573I$
$u = -1.31280 - 0.86921I$ $a = -0.106149 - 1.398778I$ $b = 0.168784 - 0.607951I$	$7.10229 + 5.03178I$	$11.17379 + 0.23568I$
$u = -1.31280 + 0.86921I$ $a = -0.106149 + 1.398778I$ $b = 0.168784 + 0.607951I$	$7.10229 - 5.03178I$	$11.17379 - 0.23568I$
$u = -1.22378 - 0.74371I$ $a = -0.296461 - 0.947446I$ $b = -0.507340 - 0.954770I$	$5.06894 - 1.03566I$	$9.19102 - 0.41125I$
$u = -1.22378 + 0.74371I$ $a = -0.296461 + 0.947446I$ $b = -0.507340 + 0.954770I$	$5.06894 + 1.03566I$	$9.19102 + 0.41125I$
$u = -1.174466 - 0.741807I$ $a = -0.42742 - 1.48323I$ $b = 0.58598 - 1.31107I$	$-1.90928 - 7.75289I$	$3.09462 + 5.99910I$
$u = -1.174466 + 0.741807I$ $a = -0.42742 + 1.48323I$ $b = 0.58598 + 1.31107I$	$-1.90928 + 7.75289I$	$3.09462 - 5.99910I$

Solution to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.084366 - 0.043630I$ $a = 0.062783 + 1.218163I$ $b = -0.489726 + 0.278597I$	$6.71196 - 5.09265I$	$8.85774 + 4.27356I$
$u = -1.084366 + 0.043630I$ $a = 0.062783 - 1.218163I$ $b = -0.489726 - 0.278597I$	$6.71196 + 5.09265I$	$8.85774 - 4.27356I$
$u = -0.955824 - 0.815141I$ $a = 0.0595934 + 0.1191830I$ $b = 1.122268 + 0.163021I$	$7.34238 - 11.23935I$	$7.36525 + 7.13269I$
$u = -0.955824 + 0.815141I$ $a = 0.0595934 - 0.1191830I$ $b = 1.122268 - 0.163021I$	$7.34238 + 11.23935I$	$7.36525 - 7.13269I$
$u = -0.887412 - 0.681602I$ $a = -0.155436 - 0.123733I$ $b = -1.123069 - 0.172402I$	$0.94916 - 7.07982I$	$4.04073 + 7.98473I$
$u = -0.887412 + 0.681602I$ $a = -0.155436 + 0.123733I$ $b = -1.123069 + 0.172402I$	$0.94916 + 7.07982I$	$4.04073 - 7.98473I$
$u = -0.851830 - 0.627147I$ $a = 0.12177 + 1.49762I$ $b = -0.244342 + 0.574128I$	$1.08733 + 1.99106I$	$6.09235 - 1.36477I$
$u = -0.851830 + 0.627147I$ $a = 0.12177 - 1.49762I$ $b = -0.244342 - 0.574128I$	$1.08733 - 1.99106I$	$6.09235 + 1.36477I$
$u = -0.846541 - 0.044566I$ $a = 0.18852 - 1.42850I$ $b = 0.408841 - 0.538029I$	$0.94922 - 1.67367I$	$6.07995 + 4.98191I$
$u = -0.846541 + 0.044566I$ $a = 0.18852 + 1.42850I$ $b = 0.408841 + 0.538029I$	$0.94922 + 1.67367I$	$6.07995 - 4.98191I$

Solution to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.843757 - 0.020441I$ $a = -0.52552 + 1.34772I$ $b = 0.26940 + 1.50948I$	$1.55133 - 5.83848I$	$0.09771 + 5.45598I$
$u = -0.843757 + 0.020441I$ $a = -0.52552 - 1.34772I$ $b = 0.26940 - 1.50948I$	$1.55133 + 5.83848I$	$0.09771 - 5.45598I$
$u = -0.807419 - 0.101376I$ $a = 0.68138 + 1.60569I$ $b = -0.25185 + 1.41547I$	$-4.87171 + 1.98745I$	$-3.66665 - 4.32136I$
$u = -0.807419 + 0.101376I$ $a = 0.68138 - 1.60569I$ $b = -0.25185 - 1.41547I$	$-4.87171 - 1.98745I$	$-3.66665 + 4.32136I$
$u = -0.799827 - 0.745621I$ $a = 0.71049 + 1.63240I$ $b = -0.550727 + 1.273456I$	$6.15553 - 4.54274I$	$8.44861 + 4.45149I$
$u = -0.799827 + 0.745621I$ $a = 0.71049 - 1.63240I$ $b = -0.550727 - 1.273456I$	$6.15553 + 4.54274I$	$8.44861 - 4.45149I$
$u = -0.75500 - 2.08003I$ $a = 0.049536 + 0.692418I$ $b = 0.280728 + 0.984283I$	$5.87411 + 7.49299I$	$7.53247 - 9.19945I$
$u = -0.75500 + 2.08003I$ $a = 0.049536 - 0.692418I$ $b = 0.280728 - 0.984283I$	$5.87411 - 7.49299I$	$7.53247 + 9.19945I$
$u = -0.740373 - 0.199504I$ $a = -0.76534 - 2.31374I$ $b = 0.264183 - 1.381403I$	$-4.10019 - 3.25868I$	$-4.16235 - 7.85474I$
$u = -0.740373 + 0.199504I$ $a = -0.76534 + 2.31374I$ $b = 0.264183 + 1.381403I$	$-4.10019 + 3.25868I$	$-4.16235 + 7.85474I$

Solution to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.698286 - 0.534605I$ $a = 0.324307 + 0.014317I$ $b = 1.145901 + 0.160272I$	$1.75411 - 1.70043I$	$7.59443 + 6.08619I$
$u = -0.698286 + 0.534605I$ $a = 0.324307 - 0.014317I$ $b = 1.145901 - 0.160272I$	$1.75411 + 1.70043I$	$7.59443 - 6.08619I$
$u = -0.651197 - 0.220970I$ $a = -1.69945 - 2.70481I$ $b = 0.193292 - 1.310604I$	$-4.12384 - 3.33457I$	$-15.8193 + 4.0101I$
$u = -0.651197 + 0.220970I$ $a = -1.69945 + 2.70481I$ $b = 0.193292 + 1.310604I$	$-4.12384 + 3.33457I$	$-15.8193 - 4.0101I$
$u = -0.614408 - 0.531789I$ $a = 2.38039 + 0.82369I$ $b = -0.300650 + 1.185315I$	$2.86988 - 7.90451I$	$1.41287 + 11.07621I$
$u = -0.614408 + 0.531789I$ $a = 2.38039 - 0.82369I$ $b = -0.300650 - 1.185315I$	$2.86988 + 7.90451I$	$1.41287 - 11.07621I$
$u = -0.36709 - 1.73288I$ $a = -0.077770 - 0.578892I$ $b = -0.268637 - 0.926272I$	$0.17356 + 4.65502I$	$2.68890 - 10.30148I$
$u = -0.36709 + 1.73288I$ $a = -0.077770 + 0.578892I$ $b = -0.268637 + 0.926272I$	$0.17356 - 4.65502I$	$2.68890 + 10.30148I$
$u = -0.345949 - 0.681576I$ $a = 0.799172 + 0.488356I$ $b = 0.400085 + 0.779941I$	$0.45850 + 1.90438I$	$4.87683 - 2.73751I$
$u = -0.345949 + 0.681576I$ $a = 0.799172 - 0.488356I$ $b = 0.400085 - 0.779941I$	$0.45850 - 1.90438I$	$4.87683 + 2.73751I$

Solution to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.315066 - 0.794489I$ $a = -0.077165 + 0.269831I$ $b = -1.075547 - 0.160757I$	$9.64122 + 1.15165I$	$12.31029 + 1.33137I$
$u = -0.315066 + 0.794489I$ $a = -0.077165 - 0.269831I$ $b = -1.075547 + 0.160757I$	$9.64122 - 1.15165I$	$12.31029 - 1.33137I$
$u = 0.115180$ $a = 1.46083$ $b = -1.83723$	10.0236	89.3531
$u = 0.217059 - 0.310973I$ $a = -0.577538 - 0.940146I$ $b = 0.794294 - 0.196262I$	$1.43199 - 0.10841I$	$9.03393 - 1.67726I$
$u = 0.217059 + 0.310973I$ $a = -0.577538 + 0.940146I$ $b = 0.794294 + 0.196262I$	$1.43199 + 0.10841I$	$9.03393 + 1.67726I$
$u = 0.229874 - 1.178066I$ $a = -0.472863 + 0.491184I$ $b = 0.354699 - 0.723101I$	$7.08647 + 3.90826I$	$9.31273 - 0.42676I$
$u = 0.229874 + 1.178066I$ $a = -0.472863 - 0.491184I$ $b = 0.354699 + 0.723101I$	$7.08647 - 3.90826I$	$9.31273 + 0.42676I$
$u = 0.267524 - 0.594606I$ $a = -2.87446 + 2.84318I$ $b = 0.268404 + 0.857891I$	$6.81415 + 6.82656I$	$7.91716 - 9.86777I$
$u = 0.267524 + 0.594606I$ $a = -2.87446 - 2.84318I$ $b = 0.268404 - 0.857891I$	$6.81415 - 6.82656I$	$7.91716 + 9.86777I$
$u = 0.332170 - 0.629742I$ $a = 0.085108 - 0.607459I$ $b = 0.512801 + 0.532408I$	$0.40811 + 2.17817I$	$5.56775 - 5.52206I$

Solution to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.332170 + 0.629742I$ $a = 0.085108 + 0.607459I$ $b = 0.512801 - 0.532408I$	$0.40811 - 2.17817I$	$5.56775 + 5.52206I$
$u = 0.362510 - 0.110765I$ $a = 1.21537 + 2.06664I$ $b = -0.622034 - 0.798019I$	$4.81925 + 2.14563I$	$8.40267 - 3.44502I$
$u = 0.362510 + 0.110765I$ $a = 1.21537 - 2.06664I$ $b = -0.622034 + 0.798019I$	$4.81925 - 2.14563I$	$8.40267 + 3.44502I$
$u = 0.387502 - 1.003568I$ $a = 0.075758 - 0.290850I$ $b = -0.102432 + 0.587595I$	$0.58871 + 2.37016I$	$4.17793 + 0.20978I$
$u = 0.387502 + 1.003568I$ $a = 0.075758 + 0.290850I$ $b = -0.102432 - 0.587595I$	$0.58871 - 2.37016I$	$4.17793 - 0.20978I$
$u = 0.533022 - 0.705164I$ $a = 0.313368 + 0.555005I$ $b = -0.766287 - 0.483773I$	$5.63533 + 2.97696I$	$10.49191 - 3.67148I$
$u = 0.533022 + 0.705164I$ $a = 0.313368 - 0.555005I$ $b = -0.766287 + 0.483773I$	$5.63533 - 2.97696I$	$10.49191 + 3.67148I$
$u = 0.548587 - 0.896368I$ $a = 0.374783 - 0.947309I$ $b = -0.61912 - 1.42748I$	$4.61143 + 7.37584I$	$10.2448 - 10.2846I$
$u = 0.548587 + 0.896368I$ $a = 0.374783 + 0.947309I$ $b = -0.61912 + 1.42748I$	$4.61143 - 7.37584I$	$10.2448 + 10.2846I$
$u = 0.695545 - 0.304864I$ $a = -0.16589 - 3.29163I$ $b = -0.194990 - 0.972525I$	$-0.49529 + 4.30405I$	$0.74509 - 9.00558I$

Solution to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.695545 + 0.304864I$ $a = -0.16589 + 3.29163I$ $b = -0.194990 + 0.972525I$	$-0.49529 - 4.30405I$	$0.74509 + 9.00558I$
$u = 0.751296 - 0.617383I$ $a = 0.397295 + 0.125727I$ $b = -0.560357 + 0.063304I$	$-1.03837 + 1.54696I$	$-1.67898 - 4.77723I$
$u = 0.751296 + 0.617383I$ $a = 0.397295 - 0.125727I$ $b = -0.560357 - 0.063304I$	$-1.03837 - 1.54696I$	$-1.67898 + 4.77723I$
$u = 0.85835 - 1.24200I$ $a = -0.510868 + 0.408341I$ $b = 0.058412 + 0.928721I$	$1.12675 + 3.01989I$	$1.45420 - 3.67592I$
$u = 0.85835 + 1.24200I$ $a = -0.510868 - 0.408341I$ $b = 0.058412 - 0.928721I$	$1.12675 - 3.01989I$	$1.45420 + 3.67592I$
$u = 0.864539 - 0.448586I$ $a = -0.484886 - 1.139655I$ $b = 0.563658 - 0.873301I$	$1.161848 + 0.746665I$	$0.192569 - 0.288737I$
$u = 0.864539 + 0.448586I$ $a = -0.484886 + 1.139655I$ $b = 0.563658 + 0.873301I$	$1.161848 - 0.746665I$	$0.192569 + 0.288737I$
$u = 0.882883 - 0.965266I$ $a = -0.385935 + 0.016752I$ $b = 0.549004 - 0.248370I$	$3.28529 + 3.22075I$	$7.79433 - 4.35674I$
$u = 0.882883 + 0.965266I$ $a = -0.385935 - 0.016752I$ $b = 0.549004 + 0.248370I$	$3.28529 - 3.22075I$	$7.79433 + 4.35674I$
$u = 0.895956 - 0.430676I$ $a = 1.51300 - 0.95295I$ $b = 0.073479 - 0.979835I$	$-2.63186 - 0.30603I$	$-4.47610 - 0.84684I$

Solution to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.895956 + 0.430676I$ $a = 1.51300 + 0.95295I$ $b = 0.073479 + 0.979835I$	$-2.63186 + 0.30603I$	$-4.47610 + 0.84684I$
$u = 0.896562 - 0.724352I$ $a = -0.401782 + 1.011935I$ $b = 0.580851 + 1.289204I$	$-1.90539 + 5.37165I$	$4.99409 - 10.30612I$
$u = 0.896562 + 0.724352I$ $a = -0.401782 - 1.011935I$ $b = 0.580851 - 1.289204I$	$-1.90539 - 5.37165I$	$4.99409 + 10.30612I$
$u = 0.983911$ $a = -0.545112$ $b = 0.664036$	2.27296	3.80779
$u = 1.098757 - 0.158169I$ $a = 0.462035 - 1.052923I$ $b = -0.591230 - 1.087056I$	$-3.27941 + 2.28675I$	$-3.82551 - 1.37856I$
$u = 1.098757 + 0.158169I$ $a = 0.462035 + 1.052923I$ $b = -0.591230 + 1.087056I$	$-3.27941 - 2.28675I$	$-3.82551 + 1.37856I$
$u = 1.26078 - 1.24731I$ $a = -0.702035 + 1.182958I$ $b = 0.444333 + 1.113407I$	$0.79244 + 7.21107I$	$2.35901 - 8.61847I$
$u = 1.26078 + 1.24731I$ $a = -0.702035 - 1.182958I$ $b = 0.444333 - 1.113407I$	$0.79244 - 7.21107I$	$2.35901 + 8.61847I$
$u = 1.37243 - 1.03477I$ $a = 0.535648 - 1.177408I$ $b = -0.428397 - 1.160104I$	$-4.10700 + 5.44401I$	$-7.49868 - 9.59248I$
$u = 1.37243 + 1.03477I$ $a = 0.535648 + 1.177408I$ $b = -0.428397 + 1.160104I$	$-4.10700 - 5.44401I$	$-7.49868 + 9.59248I$

Solution to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.37453 - 1.19947I$		
$a = 0.207842 - 1.093092I$	$0.04809 + 6.65339I$	$2.74381 - 8.91641I$
$b = -0.337940 - 1.350438I$		
$u = 1.37453 + 1.19947I$		
$a = 0.207842 + 1.093092I$	$0.04809 - 6.65339I$	$2.74381 + 8.91641I$
$b = -0.337940 + 1.350438I$		
$u = 1.41569 - 0.95577I$		
$a = -0.213894 + 1.241579I$	$-4.35734 + 4.93840I$	$-7.58655 - 6.46522I$
$b = 0.307225 + 1.253980I$		
$u = 1.41569 + 0.95577I$		
$a = -0.213894 - 1.241579I$	$-4.35734 - 4.93840I$	$-7.58655 + 6.46522I$
$b = 0.307225 - 1.253980I$		
$u = 1.53020 - 0.59826I$		
$a = -0.045437 - 1.408482I$	$-0.78403 + 3.10651I$	$0.40975 - 1.77947I$
$b = -0.191400 - 1.188395I$		
$u = 1.53020 + 0.59826I$		
$a = -0.045437 + 1.408482I$	$-0.78403 - 3.10651I$	$0.40975 + 1.77947I$
$b = -0.191400 + 1.188395I$		
$u = 1.61598 - 0.75808I$		
$a = -0.476895 + 1.058481I$	$-0.88817 + 4.15422I$	$-0.79456 - 1.86780I$
$b = 0.461674 + 1.165624I$		
$u = 1.61598 + 0.75808I$		
$a = -0.476895 - 1.058481I$	$-0.88817 - 4.15422I$	$-0.79456 + 1.86780I$
$b = 0.461674 - 1.165624I$		

III. u-Polynomials

Crossings	u-Polynomials at each crossings
c_1	$(u^{17} - 2u^{16} + \dots - 4u - 1)(u^{88} + 9u^{87} + \dots - 24u - 1)$
c_2	$(u^{17} - 3u^{15} + \dots + 2u + 1)(u^{88} + u^{87} + \dots - 1530u - 73)$
c_3	$(u^{17} + 9u^{16} + \dots + 12u + 1)(u^{88} + 2u^{87} + \dots + 1392u + 133)$
c_4	$(u^{17} - 8u^{16} + \dots + 10u - 1)(u^{88} + 3u^{87} + \dots - 6998u + 2363)$
c_5	$(u^{17} - 2u^{16} + \dots + 2u - 1)(u^{88} + 3u^{87} + \dots + 12u - 1)$
c_6	$(u^{17} - 2u^{16} + \dots + 2u - 1)(u^{88} + u^{87} + \dots - 9888u - 1216)$
c_7	$(u^{17} - u^{16} + \dots + u - 1)(u^{88} + 26u^{86} + \dots + 35u - 19)$
c_8	$(u^{17} + 2u^{16} + \dots + 2u + 1)(u^{88} + 3u^{87} + \dots + 12u - 1)$
c_9	$(u^{17} + 2u^{16} + \dots + 2u + 1)(u^{88} + 3u^{87} + \dots + 12u - 1)$
c_{10}	$(u^{17} + 4u^{16} + \dots + 2u - 1)(u^{88} + 5u^{87} + \dots + 32u - 1)$
c_{11}	$(u^{17} + u^{16} + \dots + u + 1)(u^{88} + 26u^{86} + \dots + 35u - 19)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossings
c_1	$(y^{17} - 14y^{16} + \dots + 12y - 1)(y^{88} - 15y^{87} + \dots + 48y + 1)$
c_2	$(y^{17} - 6y^{16} + \dots - 8y^2 - 1)(y^{88} + 17y^{87} + \dots + 439816y + 5329)$
c_3	$(y^{17} + y^{16} + \dots + 18y - 1)(y^{88} - 16y^{87} + \dots - 1724598y + 17689)$
c_4	$(y^{17} + 2y^{16} + \dots + 4y - 1)$ $(y^{88} - 23y^{87} + \dots - 69312708y + 5583769)$
c_5	$(y^{17} - 18y^{16} + \dots + 18y - 1)(y^{88} - 87y^{87} + \dots + 6y + 1)$
c_6	$(y^{17} + 6y^{16} + \dots + 12y - 1)$ $(y^{88} - 7y^{87} + \dots - 41894912y + 1478656)$
c_7, c_{11}	$(y^{17} + 9y^{16} + \dots - 13y - 1)(y^{88} + 52y^{87} + \dots + 8009y + 361)$
c_8	$(y^{17} - 18y^{16} + \dots + 18y - 1)(y^{88} - 87y^{87} + \dots + 6y + 1)$
c_9	$(y^{17} - 18y^{16} + \dots + 18y - 1)(y^{88} - 87y^{87} + \dots + 6y + 1)$
c_{10}	$(y^{17} - 12y^{16} + \dots + 14y - 1)(y^{88} - 9y^{87} + \dots - 42y + 1)$