



Figure 1: Minimal spanning tree of the critical points

Example 1: $F(x, y) = (-11 - 8i)x^3y^4 + 94x + (43 + 28i)x^2y^3 + (9 - 62i)x^2y + (97 - 24i)x^2y^2 - (83 - 79i)x^4y^2 + (39 - 82i)xy^4 - (11 - 30i)xy^2 - (45 - 70i)x^4y + (90 + 67i)xy^3 - (52 - 76i)xy + (96 - 74i)x^5y - (11 - 61i)x^4y^3 + (71 + 36i)x^2y^5 - (24 - 86i)x^2y^4 - (41 - 41i)x^3y^3 + (74 - 93i)x^3y + (94 + 10i)xy^6 + 91 - 92i - (51 - 22i)x^3y^2 - (56 + 95i)x^6y - (1 + 63i)x^5y^2 - (50 + 48i)xy^5 + 54iy^7 - (8 - 21i)x^7 + (86 - 57i)x^6 + (5 + 73i)x^3 - (29 - 15i)y^6 + (29 - 28i)y^5 - (97 - 71i)y^3 - (88 - 46i)y^2 - (91 - 42i)y - (5 + 84i)x^5 - (18 + 76i)x^4 - (9 + 30i)x^2 - (16 + 60i)y^4$

Monodromy group

Base point: 0.0

Initial fiber: $[-1.122165618 + 0.3913275803i, -1.023069959 - 1.165112990i, -0.4723070698 + 0.9693830420i, -0.4172748590 - 0.9784077989i, 0.6164292016 - 0.1336112916i, 0.8457926190 + 0.9485748645i, 1.294817907 - 0.5691904444i]$

Permutations (critical points are ordered by increasing arguments as on the picture):

index	value	permutation
1	- 1.173079147- 0.2706876379 i	[5,7]
2	- 1.077090867- 0.2767446155 i	[4,7]
3	- 0.9366273906- 0.4639828125 i	[1,4]
4	- 0.9860629462- 0.5749191296 i	[1,3]
5	- 0.8948102421- 0.5323483685 i	[2,7]
6	- 0.6089925269- 0.7073091322 i	[3,6]
7	- 0.8885575669- 1.749626726 i	[2,4]
8	- 0.07874106802- 0.1558701074 i	[2,4]
9	- 0.3665415952- 0.9127651887 i	[1,2]
10	- 0.2422205852- 0.8133100291 i	[5,6]
11	- 0.2571010764- 0.8798927198 i	[1,6]
12	- 0.1169816944- 1.064834240 i	[1,3]
13	0.8457559723- 1.828786357 i	[4,5]
14	0.9107670013- 0.7849622144 i	[3,7]
15	0.5533623960- 0.3870724348 i	[6,7]
16	2.163304160- 1.270176108 i	[2,4]
17	1.023061808- 0.5553982515 i	[1,7]
18	0.5575797015- 0.2948071376 i	[5,7]
19	1.074221843- 0.5385055955 i	[2,5]
20	0.9021608393- 0.3777985062 i	[4,5]
21	0.7848821598- 0.2965782633 i	[5,7]
22	1.616654300+ 0.3057513816 i	[2,4]
23	1.655698226+ 0.3634437970 i	[1,2]
24	0.6057023697+ 0.1654198054 i	[1,3]
25	0.8102971221+ 0.4809038200 i	[5,6]
26	0.8545610614+ 0.5635845152 i	[3,5]
27	1.378955648+ 1.503778189 i	[1,3]
28	0.6165620935+ 0.8649748792 i	[4,5]
29	0.4967760299+ 0.8924829230 i	[5,7]
30	0.4197937756+ 1.139595164 i	[2,4]
31	0.3620058095+ 1.229609983 i	[2,3]
32	0.2596020424+ 1.065202127 i	[5,6]
33	0.006453053165+ 1.013117369 i	[1,2]
34	- 0.001188233824+ 1.248071535 i	[3,5]
35	- 0.5103966510+ 0.4434721687 i	[4,5]
36	- 0.5594398747+ 0.4640478588 i	[3,4]
37	- 0.5801310992+ 0.4571328191 i	[1,4]
38	- 0.8539056777+ 0.5105831594 i	[3,7]
39	- 0.7969563672+ 0.4296645389 i	[3,6]
40	- 1.729686338+ 0.8552479028 i	[5,7]
41	- 2.898524856+ 0.5186528677 i	[4,5]
42	- 0.6444185602+ 0.08400992171 i	[5,7]

index	fiber
1	- 1.1- 0.10 i,- 0.37+ 1.1 i,- 0.27- 3.0 i,- 0.11- 1.1 i, 1.1+ 1.5 i, 0.62- 0.49 i, 0.62- 0.49 i
2	- 1.0- 0.064 i,- 0.32+ 1.1 i,- 0.27- 2.8 i, 0.80- 0.41 i, 0.97+ 1.5 i, 0.14- 0.81 i, 0.14- 0.81 i
3	- 0.26+ 0.89 i, 0.13- 2.3 i, 0.38- 1.5 i, 0.73+ 1.5 i, 0.92- 0.35 i,- 0.60- 0.14 i,- 0.60- 0.14 i
4	- 0.81- 0.39 i, 0.12- 1.6 i, 0.57- 2.5 i, 0.67+ 1.6 i, 1.0- 0.36 i,- 0.32+ 0.53 i,- 0.32+ 0.53 i
5	- 0.68- 0.39 i,- 0.63+ 0.20 i,- 0.18+ 0.84 i, 0.64+ 1.5 i, 0.96 - 0.31 i, 0.35- 1.9 i, 0.35- 1.9 i
6	- 0.85+ 0.25 i,- 0.67- 0.55 i,- 0.17- 1.7 i, 0.95- 0.087 i, 1.5- 1.7 i, 0.15+ 1.2 i, 0.15+ 1.2 i
7	- 1.9+ 0.25 i,- 0.46+ 2.6 i, 0.51+ 1.5 i, 2.0+ 0.12 i, 3.5- 3.1 i,- 0.34- 1.5 i,- 0.34- 1.5 i
8	- 1.0+ 0.39 i,- 0.41+ 1.0 i, 0.65- 0.16 i, 0.80+ 0.94 i, 1.4- 0.64 i,- 0.67- 1.1 i,- 0.67- 1.1 i
9	- 0.27+ 1.4 i,- 0.15- 1.6 i, 0.079+ 0.81 i, 0.93+ 0.24 i, 2.1- 1.5 i,- 0.67- 0.20 i,- 0.67- 0.20 i
10	- 0.86- 0.48 i,- 0.54+ 0.40 i, - 0.30+ 1.3 i,- 0.17- 1.6 i, 2.0- 1.2 i, 0.51+ 0.36 i, 0.51+ 0.36 i
11	- 0.88- 0.41 i,- 0.32+ 1.3 i,- 0.15- 1.6 i, 0.80+ 0.38 i, 2.1- 1.3 i,- 0.14+ 0.35 i,- 0.14+ 0.35 i
12	- 1.1- 0.42 i,- 0.071- 1.6 i, 0.12- 0.41 i, 1.0+ 0.60 i, 2.6- 1.1 i,- 0.45+ 1.2 i,- 0.45+ 1.2 i
13	- 2.2+ 1.3 i,- 1.5- 1.2 i,- 0.68+ 1.8 i, 1.3+ 1.8 i, 4.5+ 0.40 i, 0.62- 1.4 i, 0.62- 1.4 i
14	- 1.4+ 0.36 i,- 1.0- 0.78 i, 0.29- 1.2 i, 1.0- 0.49 i, 2.5+ 0.99 i,- 0.24+ 1.2 i,- 0.24+ 1.2 i
15	- 1.1- 0.79 i,- 1.1+ 0.53 i,- 0.59+ 1.3 i,- 0.073- 1.1 i, 0.87- 0.23 i, 1.1+ 0.39 i, 1.1+ 0.39 i
16	- 2.9- 0.32 i,- 1.7+ 1.4 i, 0.19+ 3.1 i, 2.1- 0.95 i, 4.0+ 3.3 i,- 0.019- 1.5 i, - 0.019- 1.5 i
17	- 1.0- 0.59 i,- 0.46+ 1.6 i, 0.40- 1.0 i, 1.1- 0.33 i, 2.1+ 1.3 i,- 0.80+ 0.19 i,- 0.80+ 0.19 i
18	- 1.1- 0.81 i,- 1.1+ 0.53 i,- 0.63+ 1.3 i,- 0.12- 1.0 i, 1.1+ 0.76 i, 0.96- 0.11 i, 0.96- 0.11 i
19	- 0.85+ 0.45 i,- 0.47+ 1.6 i, 0.46- 1.0 i, 1.1- 0.32 i, 2.0+ 1.4 i,- 0.94- 0.37 i,- 0.94- 0.37 i
20	- 1.2- 0.69 i,- 1.0+ 0.45 i,- 0.63+ 1.5 i, 1.0- 0.21 i, 1.7+ 1.2 i, 0.19- 0.56 i, 0.19- 0.56 i
21	- 1.2- 0.75 i,- 1.0+ 0.49 i,- 0.69+ 1.4 i,- 0.063- 0.87 i, 1.4+ 1.0 i, 0.81- 0.21 i, 0.81- 0.21 i
22	- 1.5+ 2.1 i,- 1.1- 0.14 i, 0.56+ 2.7 i, 1.3- 1.1 i, 1.6+ 0.43 i,- 1.0- 0.90 i,- 1.0- 0.90 i
23	- 1.5+ 2.2 i,- 0.99- 1.2 i, 0.44+ 2.8 i, 1.4- 1.1 i, 1.6+ 0.48 i,- 1.1- 0.43 i,- 1.1- 0.43 i
24	- 1.3- 0.89 i,- 0.24- 0.96 i, 0.72+ 0.11 i, 0.90+ 1.1 i, 1.2- 0.52 i,- 0.98+ 0.85 i,- 0.98+ 0.85 i
25	- 1.6+ 1.2 i,- 1.3- 0.88 i,- 0.54+ 0.66 i,- 0.20- 1.0 i, 1.2- 0.59 i, 0.56+ 0.72 i, 0.56+ 0.72 i
26	- 1.7+ 1.2 i,- 1.3- 0.88 i,- 0.17- 1.1 i, 0.84+ 0.75 i, 1.3- 0.58 i,- 0.18+ 0.69 i,- 0.18+ 0.69 i
27	- 1.6- 1.2 i,- 0.41- 0.13 i, 0.22- 2.2 i, 1.3+ 1.4 i, 2.2- 0.47 i,- 2.4+ 2.1 i,- 2.4+ 2.1 i
28	- 2.1+ 0.88 i,- 1.3- 0.88 i,- 0.81+ 0.90 i, 0.86+ 0.93 i, 1.2- 0.36 i, 0.12- 0.55 i, 0.12- 0.55 i
29	- 2.1+ 0.70 i,- 1.3- 0.82 i,- 0.81+ 0.79 i,- 0.25- 0.67 i, 0.84+ 0.91 i, 0.85- 0.38 i, 0.85- 0.38 i
30	- 2.5+ 0.55 i,- 0.99+ 0.52 i, 0.69+ 0.92 i, 0.98- 1.0 i, 1.2+ 0.23 i,- 0.85- 0.62 i,- 0.85- 0.62 i
31	- 2.7+ 0.45 i,- 0.76- 0.96 i, 0.57+ 0.93 i, 1.1- 1.1 i, 1.3+ 0.38 i,- 1.0+ 0.076 i,- 1.0+ 0.076 i
32	- 2.3+ 0.27 i,- 1.4- 0.49 i,- 0.71+ 0.53 i,- 0.50- 0.89 i, 1.2- 0.86 i, 0.82+ 0.58 i, 0.82+ 0.58 i
33	- 0.54+ 0.65 i,- 0.34- 1.0 i, 0.33+ 0.27 i, 1.1+ 0.90 i, 1.4- 0.75 i,- 2.0- 0.38 i,- 2.0- 0.38 i
34	- 2.8- 0.33 i,- 1.7- 0.28 i,- 0.43- 1.2 i, 1.3+ 0.87 i, 1.5- 0.93 i,- 0.14+ 0.53 i,- 0.14+ 0.53 i
35	- 1.6- 1.8 i,- 0.99- 0.012 i,- 0.34+ 0.47 i, 0.84+ 1.0 i, 1.2- 0.38 i,- 0.024- 0.40 i,- 0.024- 0.40 i
36	- 1.7- 1.9 i,- 0.87- 0.073 i, 0.12- 0.61 i, 0.83+ 1.0 i, 1.2- 0.34 i,- 0.29+ 0.14 i,- 0.29+ 0.14 i
37	- 1.6- 1.9 i,- 0.099+ 0.28 i, 0.16- 0.62 i, 0.82+ 1.0 i, 1.2- 0.33 i,- 0.69- 0.035 i,- 0.69- 0.035 i
38	- 1.8- 2.4 i,- 1.0+ 0.41 i, - 0.88- 0.69 i, 0.34- 0.87 i, 0.55+ 1.1 i, 0.90+ 0.15 i, 0.90+ 0.15 i
39	- 1.7- 2.3 i,- 0.97+ 0.33 i,- 0.78- 0.64 i, 0.36- 0.79 i, 0.99- 0.16 i, 0.59+ 0.78 i, 0.59+ 0.78 i
40	- 2.7- 4.0 i,- 1.7+ 0.70 i,- 1.1- 1.5 i, 0.38+ 2.1 i, 2.5+ 0.85 i, 0.60- 0.94 i, 0.60- 0.94 i
41	- 2.7+ 0.35 i,- 2.4- 6.6 i,- 0.41+ 3.1 i, 1.9- 0.81 i, 3.3+ 2.2 i,- 0.13- 1.9 i, - 0.13- 1.9 i
42	- 1.1- 2.1 i,- 1.0+ 0.20 i,- 0.52- 0.70 i,- 0.14+ 0.90 i, 0.88+ 1.1 i, 0.77- 0.53 i, 0.77- 0.53 i