

### Zernike Polynomials: Table in Polar Coordinates

j	n	m	$Z_n^m(\rho, \theta)$
0	0	0	1
1	1	-1	$2 \rho \sin \theta$
2	1	1	$2 \rho \cos \theta$
3	2	-2	$\sqrt{6} \rho^2 \sin 2\theta$
4	2	0	$\sqrt{3} (2\rho^2-1)$
5	2	2	$\sqrt{6} \rho^2 \cos 2\theta$
6	3	-3	$\sqrt{8} \rho^3 \sin 3\theta$
7	3	-1	$\sqrt{8} (3\rho^3-2\rho) \sin \theta$
8	3	1	$\sqrt{8} (3\rho^3-2\rho) \cos \theta$
9	3	3	$\sqrt{8} \rho^3 \cos 3\theta$
10	4	-4	$\sqrt{10} \rho^4 \sin 4\theta$
11	4	-2	$\sqrt{10} (4\rho^4-3\rho^2) \sin 2\theta$
12	4	0	$\sqrt{5} (6\rho^4-6\rho^2+1)$
13	4	2	$\sqrt{10} (4\rho^4-3\rho^2) \cos 2\theta$
14	4	4	$\sqrt{10} \rho^4 \cos 4\theta$
15	5	-5	$\sqrt{12} \rho^5 \sin 5\theta$
16	5	-3	$\sqrt{12} (5\rho^5-4\rho^3) \sin 3\theta$
17	5	-1	$\sqrt{12} (10\rho^5-12\rho^3+3\rho) \sin \theta$
18	5	1	$\sqrt{12} (10\rho^5-12\rho^3+3\rho) \cos \theta$
19	5	3	$\sqrt{12} (5\rho^5-4\rho^3) \cos 3\theta$
20	5	5	$\sqrt{12} \rho^5 \cos 5\theta$
21	6	-6	$\sqrt{14} \rho^6 \sin 6\theta$
22	6	-4	$\sqrt{14} (6\rho^6-5\rho^4) \sin 4\theta$
23	6	-2	$\sqrt{14} (15\rho^6-20\rho^4+6\rho^2) \sin 2\theta$
24	6	0	$\sqrt{7} (20\rho^6-30\rho^4+12\rho^2-1)$
25	6	2	$\sqrt{14} (15\rho^6-20\rho^4+6\rho^2) \cos 2\theta$
26	6	4	$\sqrt{14} (6\rho^6-5\rho^4) \cos 4\theta$
27	6	6	$\sqrt{14} \rho^6 \cos 6\theta$