1.1 S stars and their orbital elements

S-stars papers:

- Eisenhauer et al. (2005), ApJ 628:246-259, 2005 July 20
  SINFONI in the Galactic Center: Young Stars and Infrared Flares in the Central Light-Month
  - orbital elements of the S1, S2, S8, S12 and S13 stars
- Ghez et al. (2005), ApJ 620:744-757, 2005 February 20
  Stellar Orbits around the Galactic Center Black Hole
  - orbital elements of the S0-2, S0-16, S0-19, S0-20, S0-1, S0-4 and S0-5 stars
- Schoedel et al. (2003), ApJ 596:1015-1034, 2003 October 20
  Stellar Dynamics in the Central Arcsecond of Our Galaxy
  - orbital elements of the S1, S2, S8, S12, S13, and S14 stars

Clockwise disk:

- Beloborodov et al. (2006), ApJ, 648:405-410, 2006 September 1
  Clockwise Stellar Disk and the Dark Mass in the Galactic Center
  - Positions and Velocities of the Clockwise Disk Stars in Their Orbital Planes

Schödel et al. (2003)

Name	a [mpc]	e	ω [°]	Ω [°]	i [°]	P [yr]
S1	$21\ ^{21}_{45}$	$0.62\ ^{0.62}_{0.84}$	$114\ ^{114}_{111}$	$104\ ^{104}_{103}$	$45\ ^{45}_{40}$	$171\ ^{171}_{602}$
S2	4.54 ± 0.27	0.87 ± 0.02	244.7 ± 4.7	44.2 ± 7.0	45.7 ± 2.6	15.73 ± 0.74
S8	$29\ ^{29}_{34}$	$0.98\ ^{0.98}_{0.99}$	$25\ ^{25}_{25}$	$109\ ^{109}_{106}$	$30\ ^{30}_{10}$	$343\ ^{343}_{473}$
S12	8.0 ± 0.7	0.73 ± 0.13	159.9 ± 16.3	99.9 ± 2.3	52.6 ± 6.9	36.0 ± 8.3
S13	$11\ ^{11}_{11}$	$0.47\ ^{0.47}_{0.46}$	$325\ ^{325}_{0}$	$173\ ^{173}_{138}$	$10\ ^{10}_{0}$	$75\ ^{75}_{75}$
S14	15.1 ± 4.6	0.97 ± 0.05	143.0 ± 19.5	40.2 ± 3.0	82.6 ± 0.5	69.0 ± 26.6

Eisenhauer et al. (2005)

Name	a [arcsec]	e	ω [°]	Ω [°]	i [°]	P [yr]
S1	0.412 ± 0.024	0.358 ± 0.036	129.8 ± 4.7	341.5 ± 0.9	120.5 ± 1.0	94.1 ± 9.0
S2	0.1226 ± 0.0025	0.8760 ± 0.0072	62.6 ± 1.4	221.9 ± 1.3	131.9 ± 1.3	15.24 ± 0.36
S8	0.329 ± 0.018	0.927 ± 0.019	159.2 ± 1.8	141.4 ± 1.9	60.6 ± 5.3	67.2 ± 5.5
S12	0.286 ± 0.012	0.9020 ± 0.0047	311.8 ± 3.6	233.3 ± 4.6	32.8 ± 1.6	54.4 ± 3.5
S13	0.219 ± 0.058	0.395 ± 0.032	250 ± 161	100 ± 198	11 ± 35	36 ± 15
S14	0.225 ± 0.022	0.9389 ± 0.0078	344.7 ± 2.2	228.5 ± 1.7	97.3 ± 2.2	38.0 ± 5.7

Ghez et al. (2005)

Name	a [AU]	e	ω [°]	Ω [°]	i [°]	P [yr]	S-name
S0-2	919 ± 23	0.8670 ± 0.0046	242.8 ± 2.1	44.0 ± 1.3	135.2 ± 1.2	14.53 ± 0.65	S2
S0-16	1680 ± 510	0.974 ± 0.016	155.9 ± 3.8	44.8 ± 1.9	102.7 ± 2.2	36 ± 17	?
S0-19	1720 ± 110	0.833 ± 0.018	173.8 ± 8.5	10.0 ± 8.5	37.0 ± 4.1	37.3 ± 3.8	?
S0-20	1900 ± 1400	0.40 ± 0.21	260 ± 100	66 ± 49	23 ± 38	43 ± 45	?
S0-1	5100 ± 3200	0.70 ± 0.21	204 ± 13	137.4 ± 7.6	121.8 ± 1.3	190 ± 180	?
S0-4	$(30 \pm 950) \times 10^3$	1.0 ± 0.15	280 ± 300	40 ± 360	47 ± 63	$(2.6 \pm 130) \times 10^3$	?
S0-5	$(70 \pm 2100) \times 10^3$	1.0 ± 1.3	356 ± 11	153.7 ± 1.1	84.0 ± 2.2	$(9.9 \pm 430) \times 10^3$	?