

Overview of Stereophonic Recording Techniques

Stereo recording principle	coincident microphone placement		level differences + minor arrival-time differences	microphones sepa- rated by an acousti- cally opaque object	major arrival- time differences
Name	X/Y	M/S	ORTF (for example)	Jecklin disk (for ex.)	A/B
Geometry	β	s ← d=0	β		β
Distance (d) between micro- phones Angle between the main axes of the microphones	0 usually vertic 70° – 180°	cm ally aligned 90°	5 cm – 30 cm distance and angle are interdependent 0° – 180°	depends on the object between them typically 20°	40 cm – 80 cm or greater (up to several meters) 0° – 90°
Acoustic oper- ating principle of the microphone	pressure-gradient transducer (e.g. SCHOEPS cardioid MK 4 or CCM 4)			usually pressure transducers* (e.g. SCHOEPS MK 2S or CCM 2S)	
Sonic impression	depending on the mic clean, clear, often bright			rophones used big, spacious; especially good low-fre- quency reproduction when omnidirec- tional condenser microphones are used	
Spaciousness	often rather limited		satisfactory	good	very good
Localization	potentially very good, except that the center of the stereo image can be over-emphasized (not a problem with figure 8s)		good	adequate	indistinct (potentially unstable)
* These recording methods can also employ pressure gradient microphones, though this is not often done. **The appropriate angle between midepends on their directional patter recording angle (the range within sound sources should be placed, a by the microphone.)					