

# Random Phase Antenna Combining for SETI

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## ABSTRACT

In conventional interferometry, as used for astrometry, imaging etc., the positions of the individual antennas, including the movement of their phase centers when tracking, have to be known to a fraction of the wavelength. The phase of the feeding lines, local oscillators etc., must be precisely controlled and calibrated. One of the reasons for these requirements is the need for accurate pointing of the synthesized beams. In the BC era of SETI (Before Contact), this need for precise pointing is absent, since we are simply looking for a signal from ANY direction. So at least until we reach the AD era (After Detection), the phasing requirements can be somewhat relaxed.