BEST-2 Specifications

2 August 2011
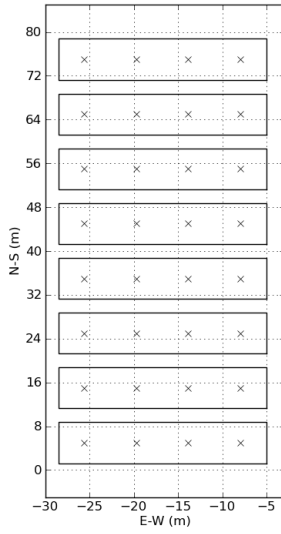

Figure 1. BEST-2 8 cylinder array layout
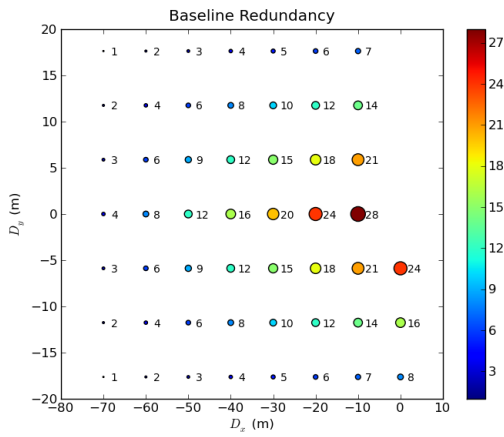

Figure 2. Color and size represent the redundancy of a baseline

Cylinder Properties		
Number of RX per cylinder	4	
Cylinder diameter	7.5	m
Cylinder lenght	23.5	m
Element diameter	7.5	m
Element lenght	5.88	m
Element collecting area	44.1	m^2
Aperture efficiency	0.71	
Element effective area	31.311	m^2

BEST-2		
Number of cylinder	8	
Total number of RX	32	
Total collective area	1411.2	m^2
Total effective area	1001.95	m^2
Sensitivity / Ant. gain	0.36	K/Jy
Aeff/Tsys	11.65	m^2/K
Antenna temperature	35	K
Receiver temperature	51	K
System temperature	86	K

Longest baseline		
E/W	17.04	m
N/S	70.00	m

Bandpass		
Central frequency	408	MHz
Analog BW	16	MHz
Digital BW	20	MHz
Channels	1024	
Channel Resolution	19.53	kHz

Pointing Limits		
declination	$(0, +90)$	deg
right ascension	local meridian	

Primary Beam		
Primary beam size	37.62	deg^2
declination	5.7	deg
right ascension	6.6	deg

Synthesized Beam		
Synthesized beam size	0.9	deg^2
declination	0.52	deg
right ascension	1.73	deg

Correlator		
Baselines	496	
Integration time (min)	6.5	ms