

Table 1: Statistical results of pixel brightness values of FITS files of CASA (active developer version 3.3.0 with the nPBWProjectFT.cc routine modified in relation to grid correction step involving spherical function and increasing oversampling factor for GCF to 30) simulated CLEAN images (with  $N_{iter} = 3000$  with use of Clark CLEAN with cyclefactor=3.0 and cyclespeedup=50) of 2 1Jy point sources separated by about 0.6' located at R.A.:  $0^h 7^m 0.0^s$ , Dec.:  $33^d 00^m 00^s$  (source 1, at image center) and R.A.:  $0^h 7^m 0.0^s$ , Dec.:  $32^d 59^m 00^s$  (source 2), with and without VLA beam model corruption of visibilities and with and without 'flux-correction' and the A-Projection algorithm used to correct for corrupted visibilities. Statistical results obtained w/in particular large bounding box region between the 2 sources (bottom left corner: [272,162,0,0], top right corner: [305,261,0,0]). Statistical results are also included for small bounding box regions around each of the 2 sources as well. Dynamic range estimates were obtained for **entire** image. CASA VLA simulation:  $N_a = 30$ ; observing freq.: 43.0 GHz; # of freq. channels: 16; channel increment: 5.0 MHz; antenna diam.: 25.0 m.;  $t_{int} = 60$  sec.; FWHM of PB:  $\sim 1.0$  arcmin; Stokes parameter in image: I; imaging weights: natural; image size: 576 pixels; pixel size: 0.25 arcsec. The key for the left-most column in the table is as follows: 1. Default VLA PB turned off; 2. Default VLA PB turned on but not corrected for; 3. Default PB turned on and image "flux-corrected" by dividing by "flux image"; 4. Default VLA PB turned on and corrected for by A-Projection algorithm.

PB,flux-corrected,or aproj?	mean(btwn,src1,src2)	r.m.s.(btwn)	D.R.	wall-clock time(min.)	CPU time (min.)
1	-4.323e-07, 0.0229, 0.0194	4.114e-05	24305.22	16.28	8.05
2	-1.579e-07, 0.0229, 0.0068	1.457e-05	68617.98	15.74	7.60
3	-2.239e-07, 0.0229, 0.0195	2.520e-05	39845.83	3.92	1.89
4	4.716e-07, 0.0229, 0.0120	2.594e-05	38535.99	286.52	152.22