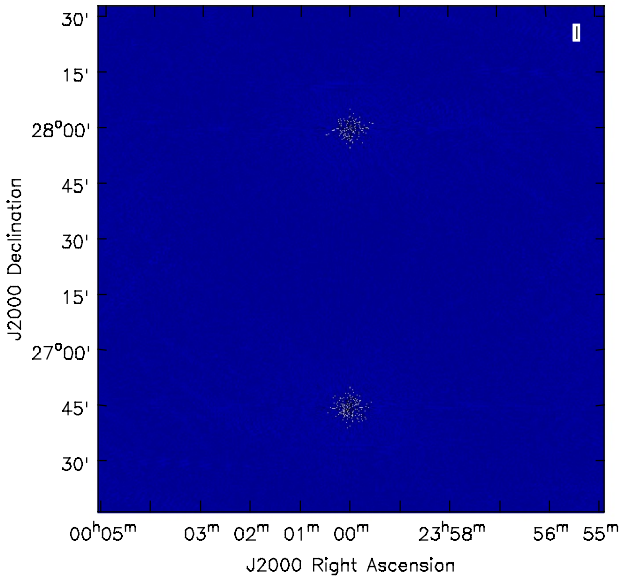

Figure 1: Meqtrees SKA simulation and Meqtrees-generated dirty image of two 1 Jy point sources with 75' separation located at R.A.: $0^h0^m0.1^s$, Dec.:$28^d0^m1^s$) add R.A.: $0^h0^m0.1^s$, Dec.:26^d45^m10s , without Cortes beam applied. Simulation: log-spiral configuration with $N_a = 150$; field center: R.A. $= 0^h0^m0.1^s$, Dec. $= 28^d0^m1^s$; observing freq.: 1400 MHz; number of frequency channels: 64; channel increment: 5.0 MHz; antenna diameter: 12.0 meters; integration time: 60 seconds; scan length: 90 min.; noise: 0.0 Jy; FWHM of primary beam: $\sim$ 75'; Stokes parameter in image: I; imaging weights: uniform; number of convolution functions for w-projection: 128; image size in pixels: 2048; image size in arcmin: 273; image displayed, zoomed in, and brightness-contrast colormap adjustments with casaviewer; colormap used: 'isophotes'.

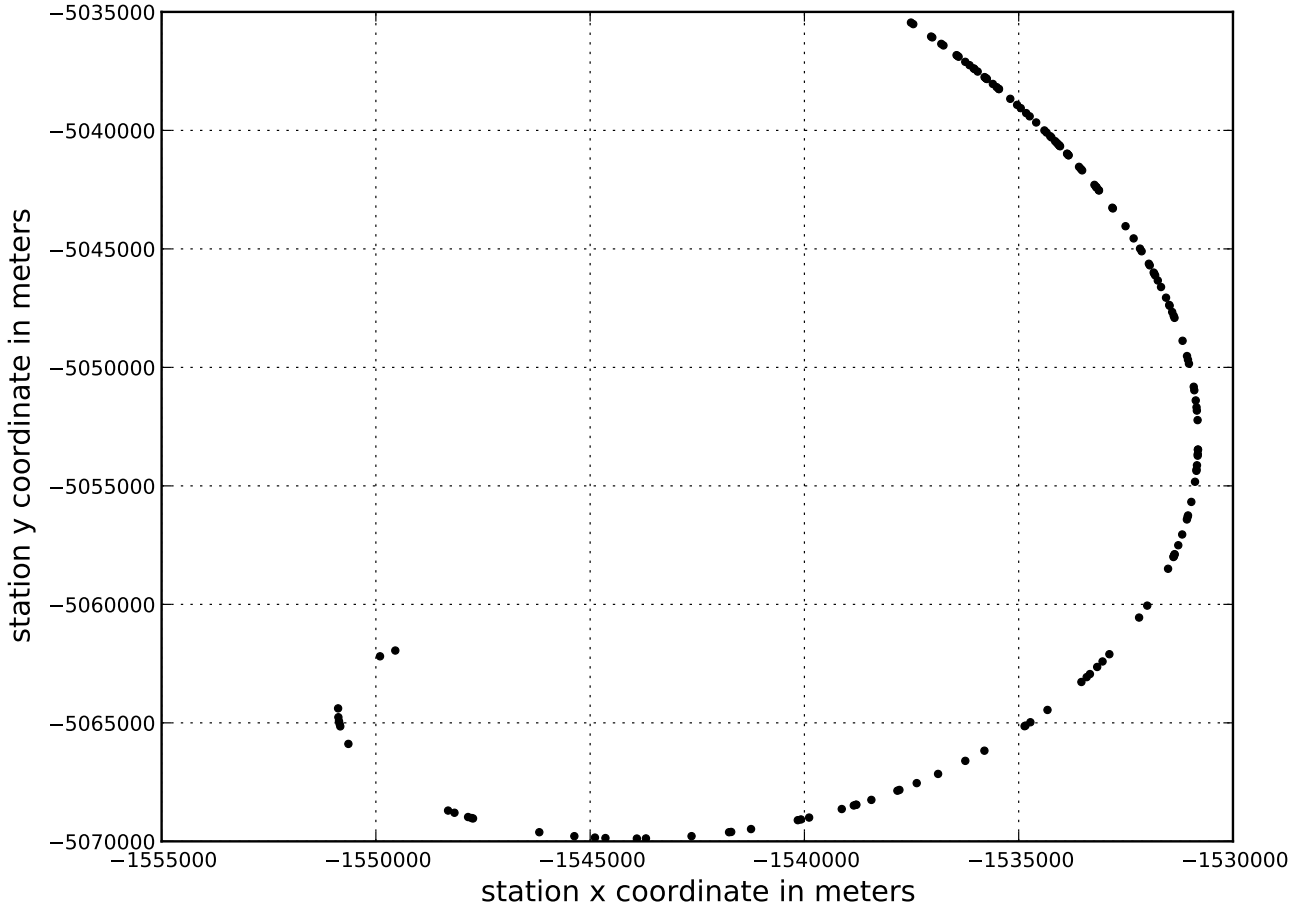

Figure 2: Plot of Logarithmic Spiral antenna configuration pattern with $N_a = 150$ and $B_{max} \sim 35km$. Antennas have been placed in a uniform random distribution within the log-spiral configuration. The (x,y) antenna location coordinates are in Earth-centered Earth-fixed cartesian coordinates (whereby the coordinate system rotates with the Earth and has origin at the Earth's center) centered on the location of the center of the VLA.

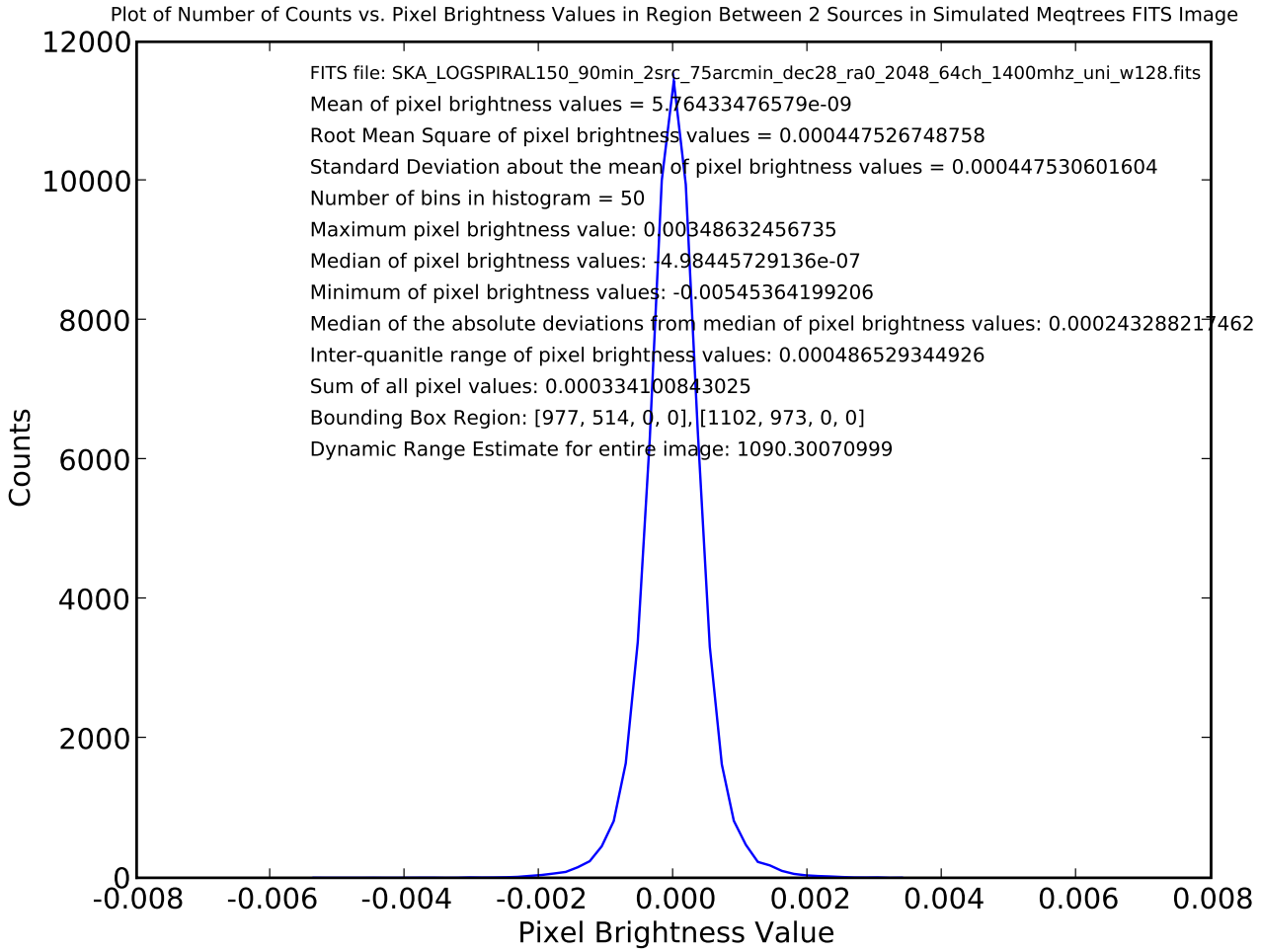

Figure 3: Line plot of counts vs. pixel brightness value for a specified bounding box region (bottom left corner = [977,514,0,0], top right corner = [1102,973,0,0]) between but not including the the two point sources in Fig. 1. Statistical measures calculated within the bounding box region are included in the plot. The dynamic range estimate is for the entire image and is taken as the ratio of the brightest (largest) pixel brightness value in the image to the rms of pixel brightness values in the bounding box region.

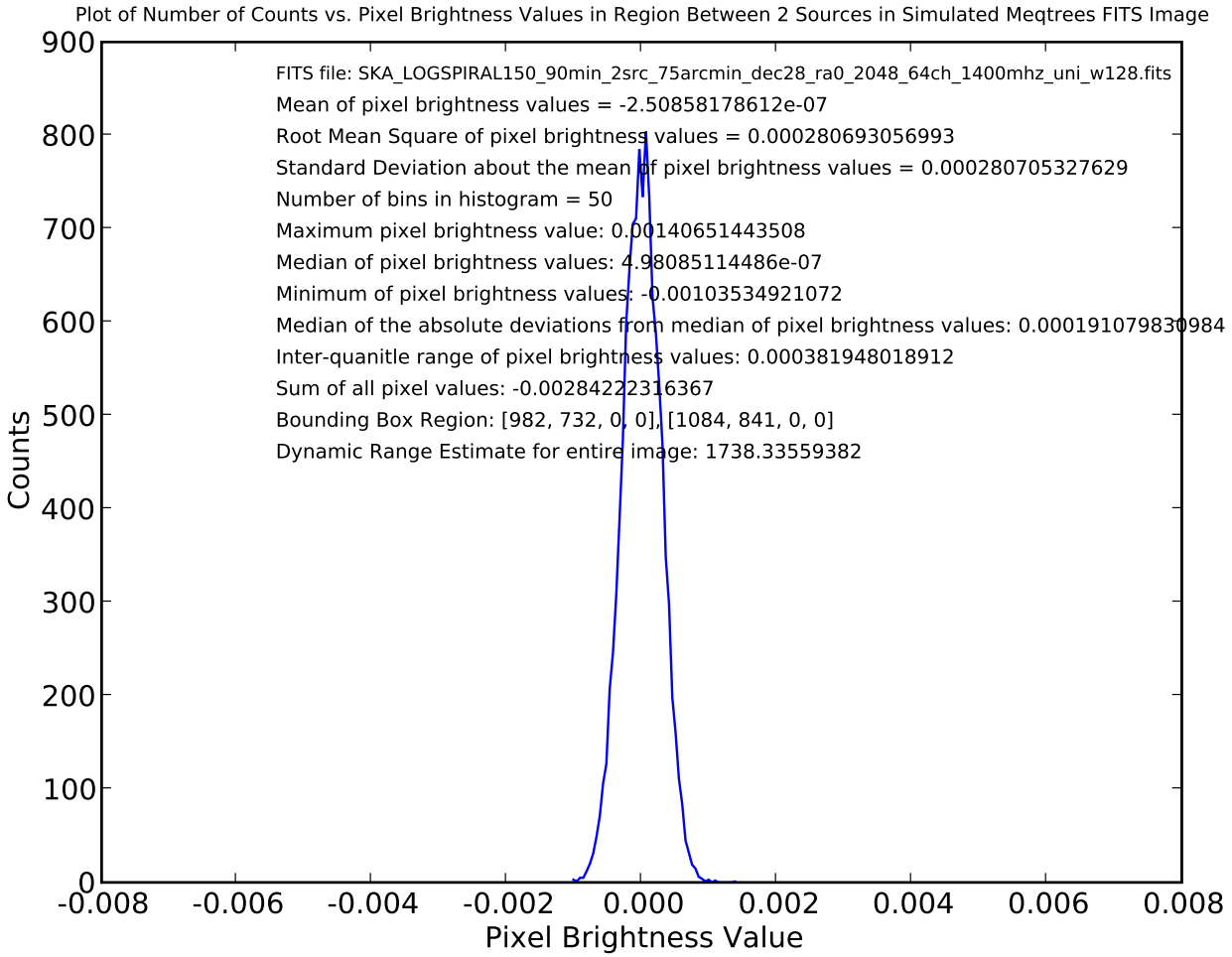

Figure 4: Line plot of counts vs. pixel brightness value for a specified smaller bounding box region (bottom left corner = [982,732,0,0], top right corner = [1084,841,0,0]) between the two point sources in Fig. 1. Statistical measures calculated within the bounding box region are included in the plot. The dynamic range estimate is for the entire image and is taken as the ratio of the brightest (largest) pixel value in the image to the rms of pixel brightness values in the bounding box region.

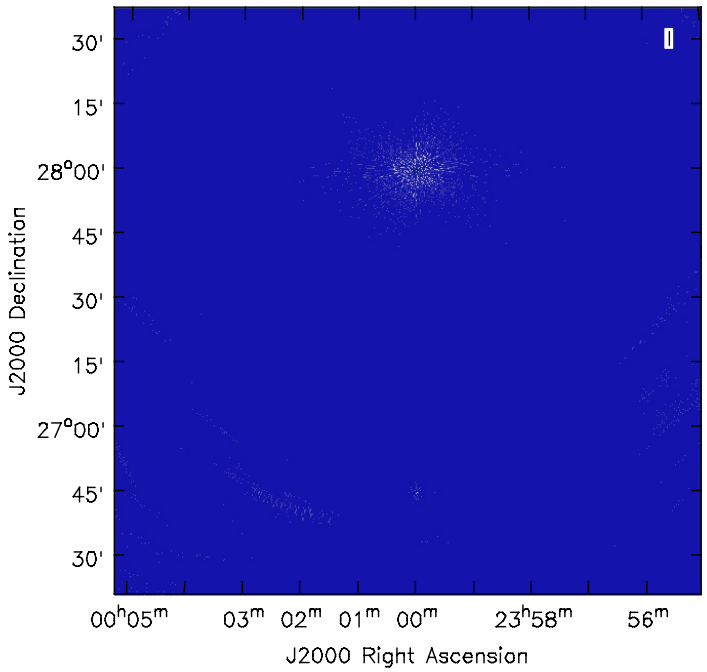

Figure 5: Meqtrees SKA simulation and Meqtrees-generated image of two 1 Jy point sources with 75 arcmin separation with Cortes beam applied. All other observation, simulation, and imaging parameters same as in Figure 1.

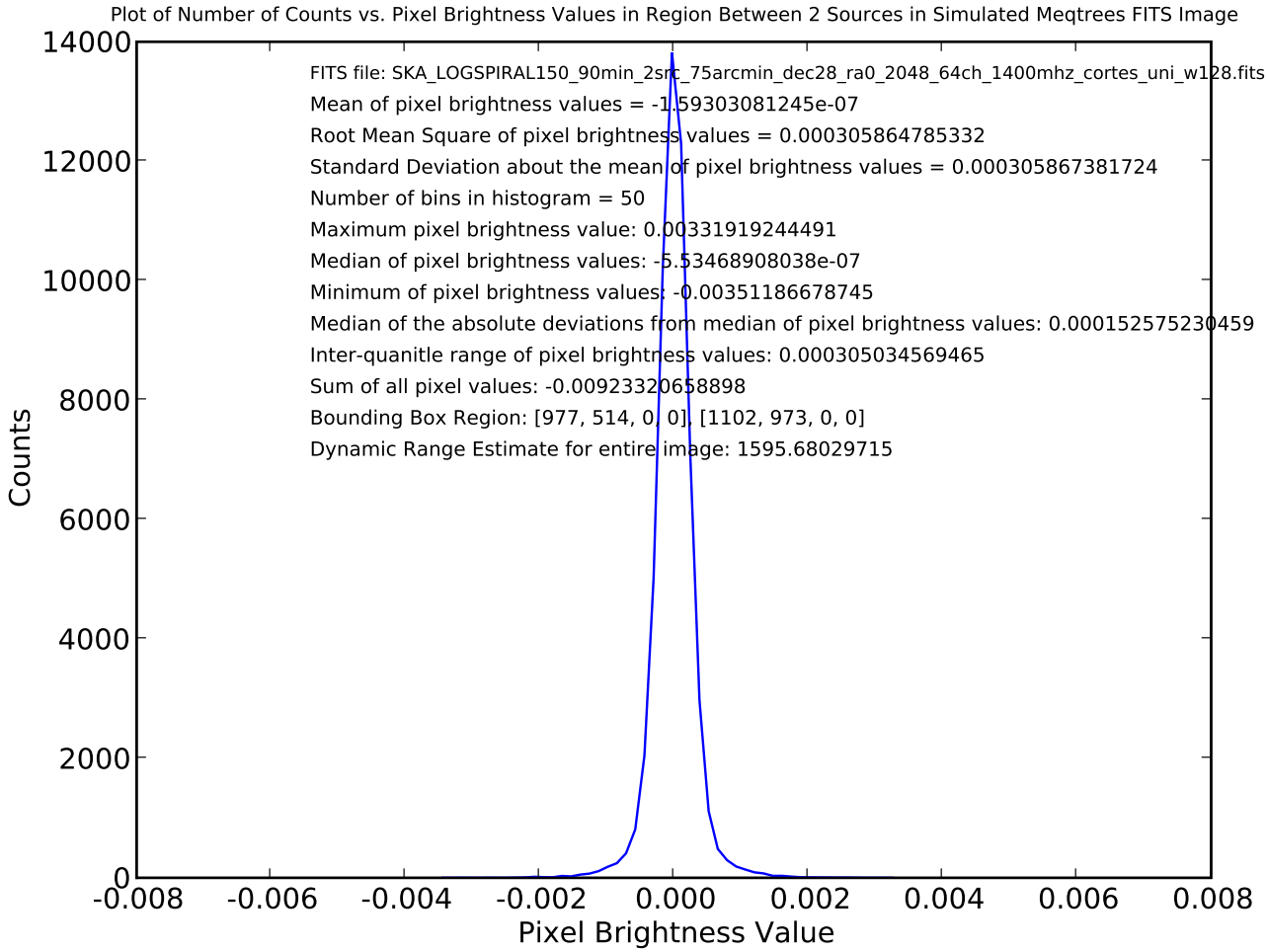

Figure 6: Line plot of counts vs. pixel brightness value for a specified bounding box region (bottom left corner = [977,514,0,0], top right corner = [1102,973,0,0]) between the two point sources in Fig. 5. Statistical measures calculated within the bounding box region are included in the plot. The dynamic range estimate is for the entire image and is taken as the ratio of the brightest (largest) pixel value in the image to the rms of pixel brightness values in the bounding box region.

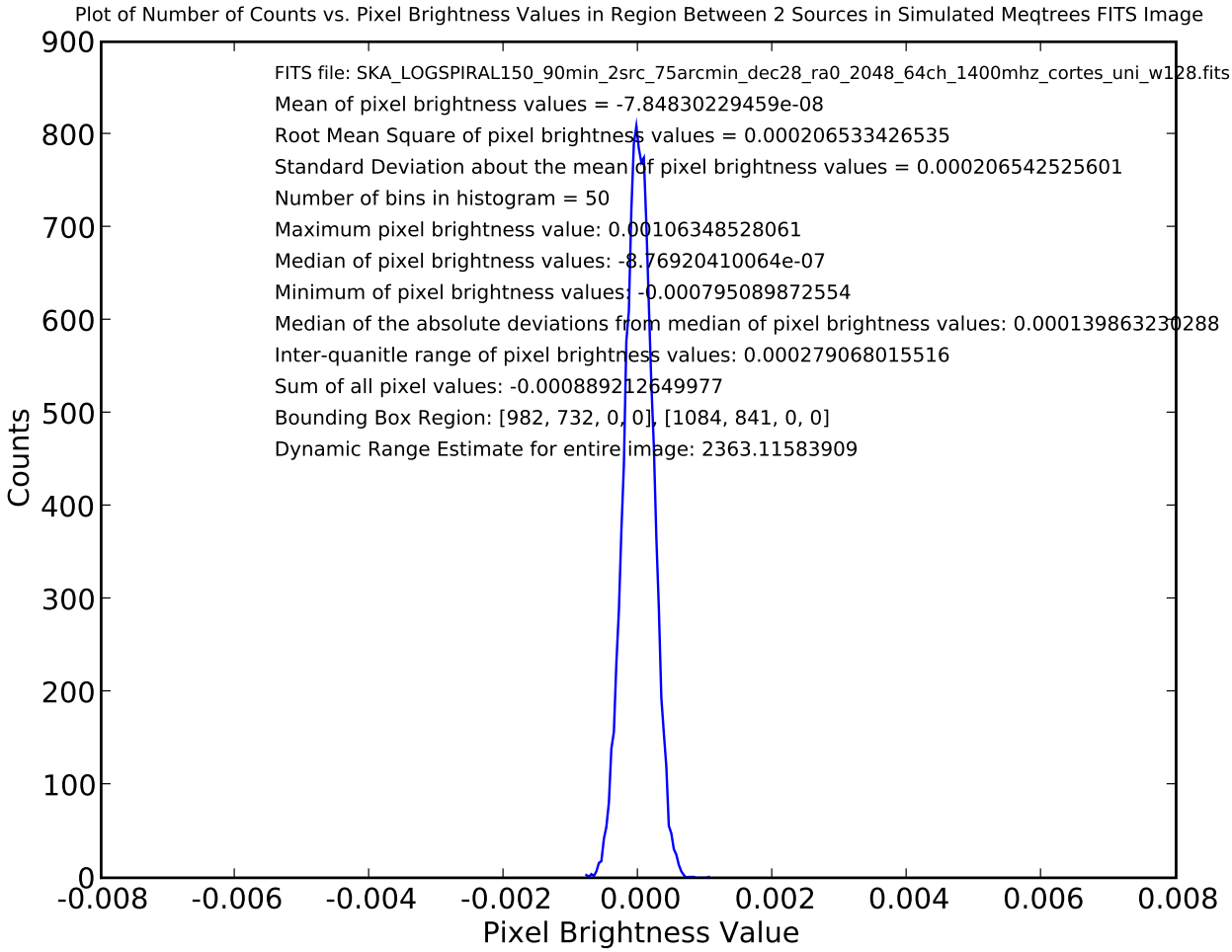

Figure 7: Line plot of counts vs. pixel brightness value for a specified smaller bounding box region (bottom left corner = [982,732,0,0], top right corner = [1084,841,0,0]) between the two point sources in Fig. 5. Statistical measures calculated within the bounding box region are included in the plot. The dynamic range estimate is for the entire image and is taken as the ratio of the brightest (largest) pixel value in the image to the rms of pixel brightness values in the bounding box region.

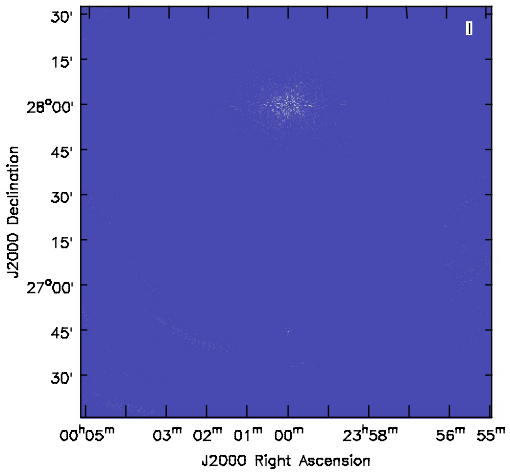

Figure 8: Meqtrees SKA simulation and Meqtrees-generated image of two 1 Jy point sources with 75 arcmin separation with Cortes beam applied, and pointing errors $l_{offset} = 0.00172179$, $m_{offset} = 0.00041211$. All other observation, simulation, and imaging parameters same as in Figure 1.

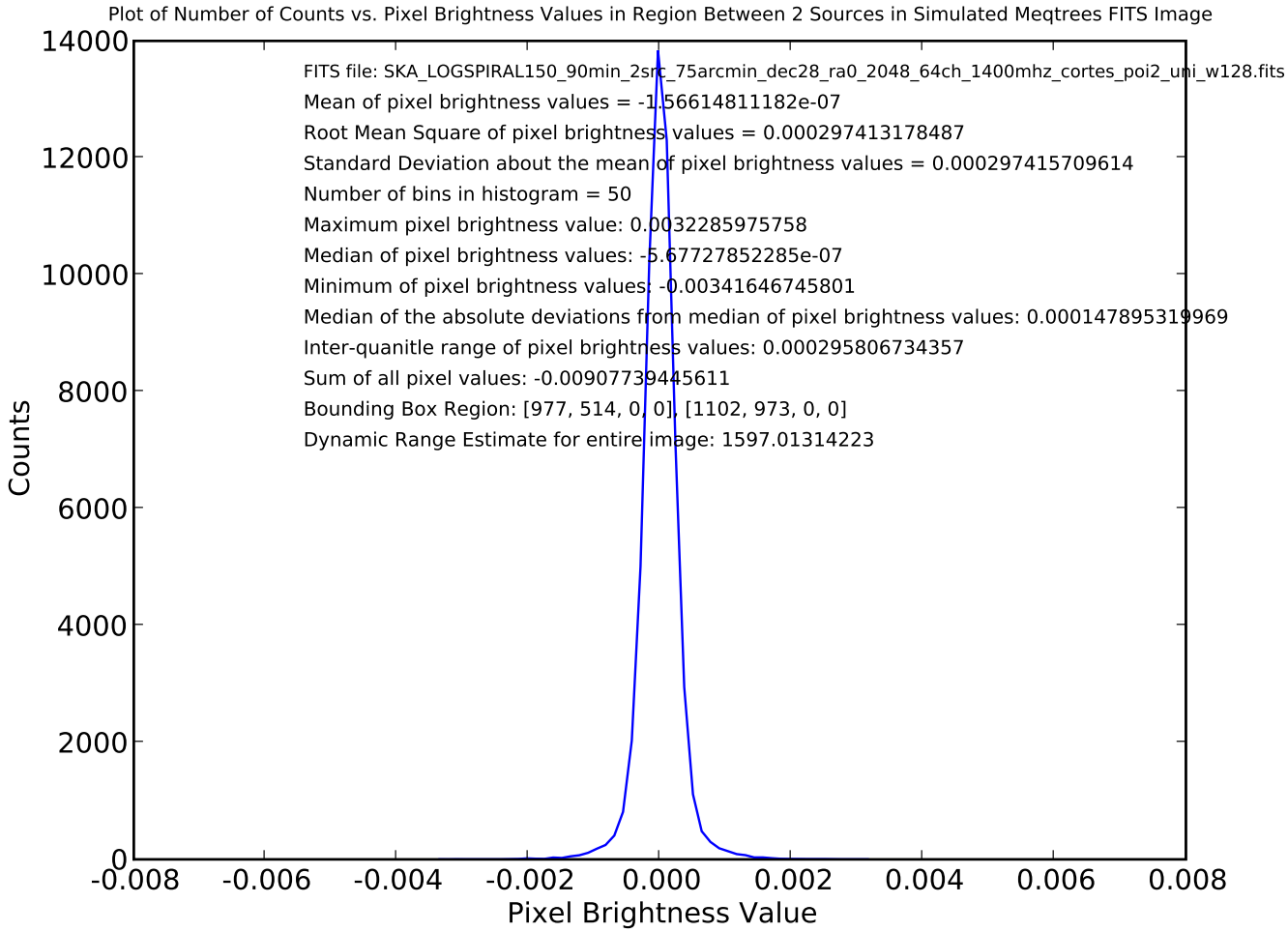

Figure 9: Line plot of counts vs. pixel brightness value for a specified bounding box region (bottom left corner = [977,514,0,0], top right corner = [1102,973,0,0]) between but not including the two point sources in Fig. 8. Statistical measures calculated within the bounding box region are included in the plot. The dynamic range estimate is for the entire image and is taken as the ratio of the brightest (largest) pixel brightness value in the image to the rms of pixel brightness values in the bounding box region.

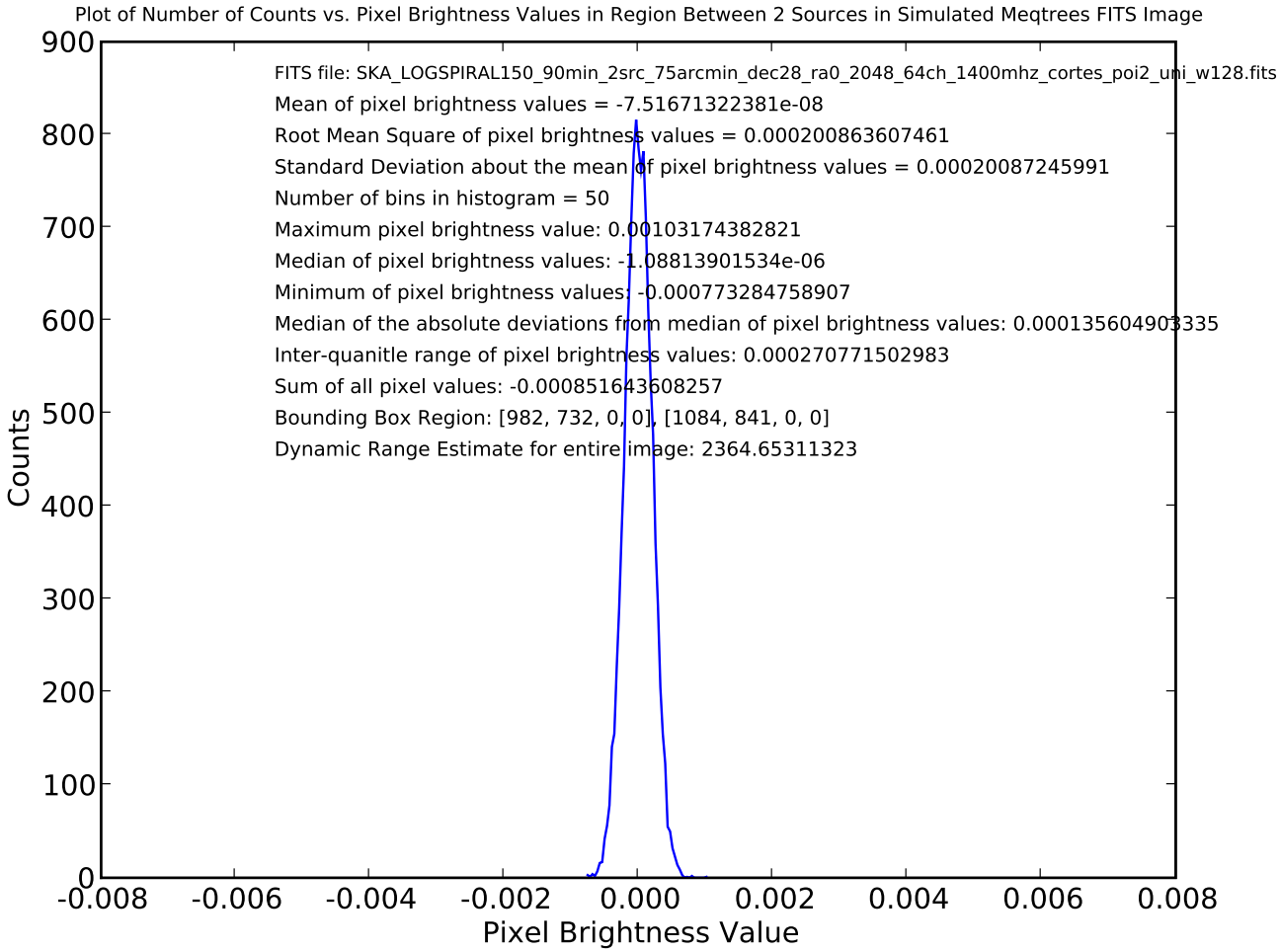

Figure 10: Line plot of counts vs. pixel brightness value for a specified smaller bounding box region (bottom left corner = [982,732,0,0], top right corner = [1084,841,0,0]) between but not including the two point sources in in Fig. 8. Statistical measures calculated within the bounding box region are included in the plot. The dynamic range estimate is for the entire image and is taken as the ratio of the brightest (largest) pixel brightness value in the entire image to the rms of pixel brightness values in the bounding box region.

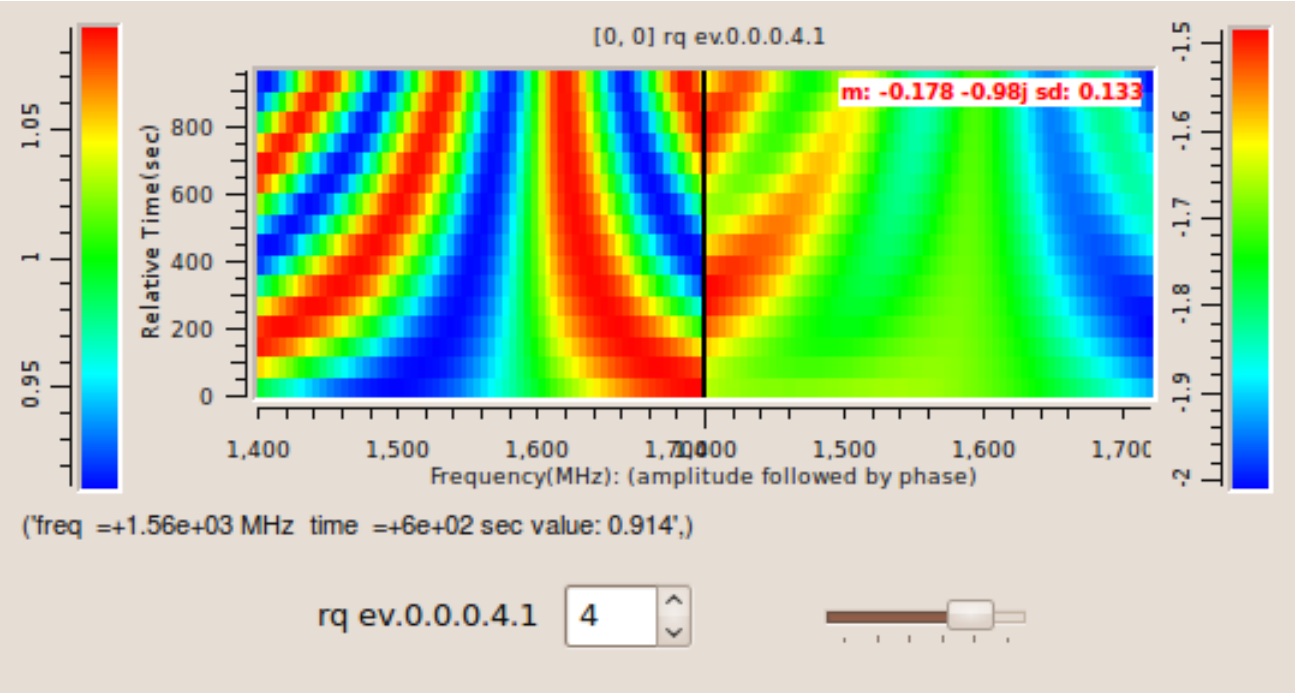

Figure 11: Output visibility inspector plot for Meqtrees SKA simulation that is the same as that in Fig. 5 except that $N_a = 50$. The plot shows the visibility amplitude (left) and visibility phase (right) as a function of time (y-axis) and frequency (x-axis), with the color scale indicating the value, for a particular baseline (0:9) of the array.

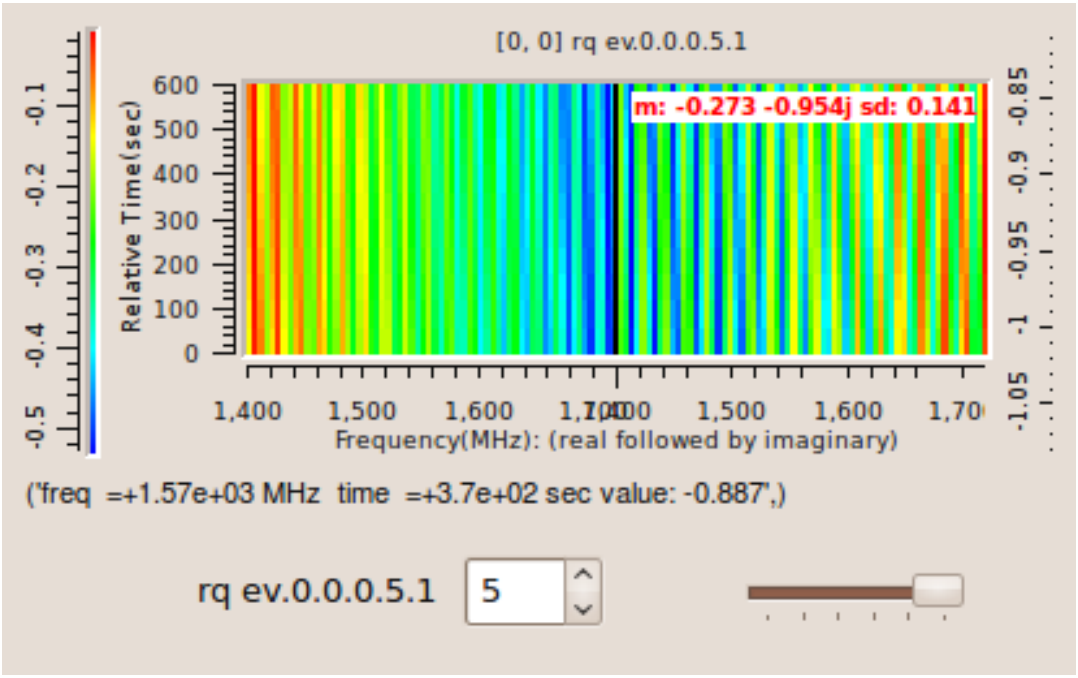

Figure 12: Output visibility inspector plot for Meqtrees SKA simulation that is the same as that in Fig. 5 except that $N_a = 50$. The plot shows the real visibility (left) and imaginary visibility (right) as a function of time (y-axis) and frequency (x-axis), with the color scale indicating the value, for a particular baseline (0:9) of the array.

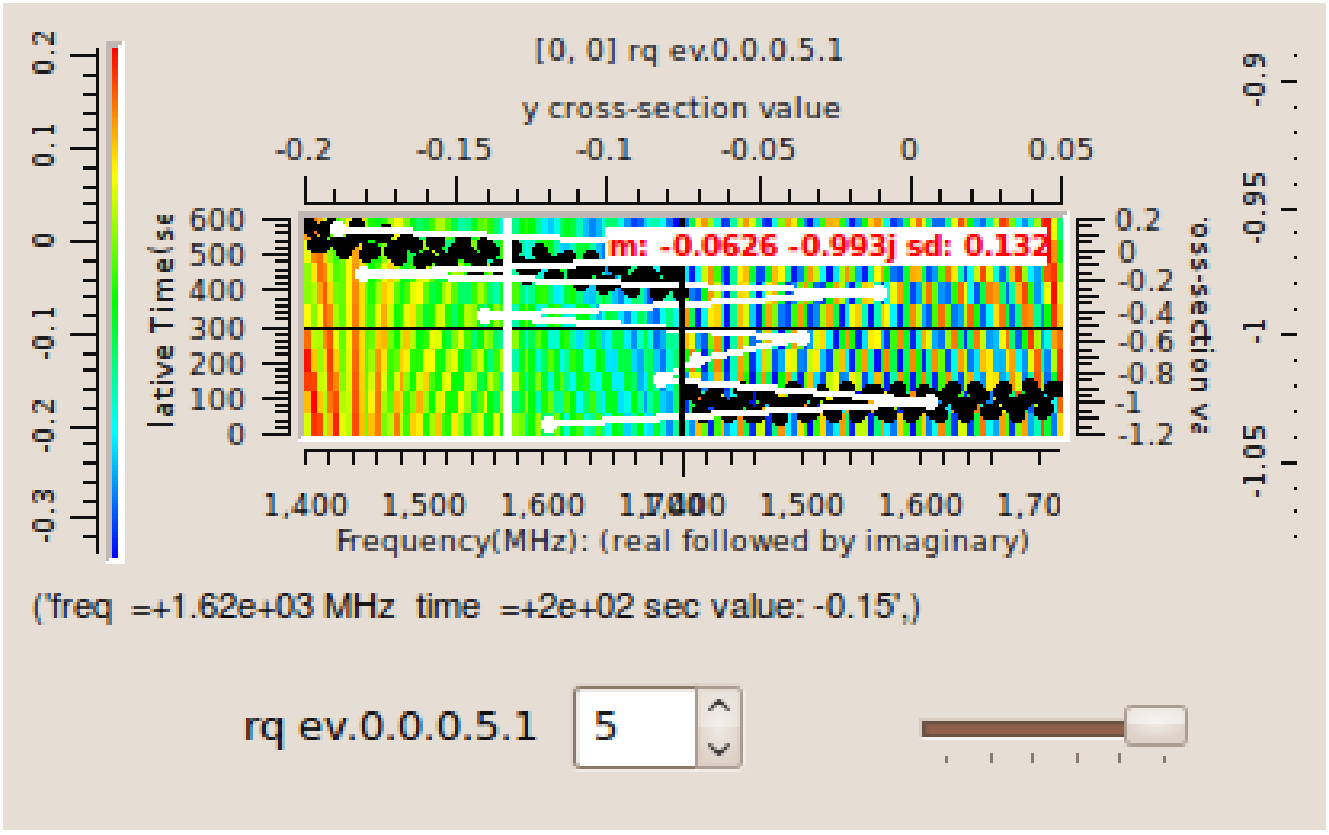

Figure 13: Output visibility inspector plot for Meqtrees SKA simulation that is the same as that in Fig. 5 except that $N_a = 50$. The plot shows the real visibility (left) and imaginary visibility (right) as a function of time (y-axis) and frequency (x-axis) for a particular baseline of the array, with the color scale indicating the value. X and Y cross sections centered on a particular location inside the 2-D array plot are overlaid on the display. Continuous black line marks location of X cross-section and black dottled line shows cross section values, which are tied to right-hand scale. White lines show corresonding info. for Y cross section, whose values are tied to top of scale plot.

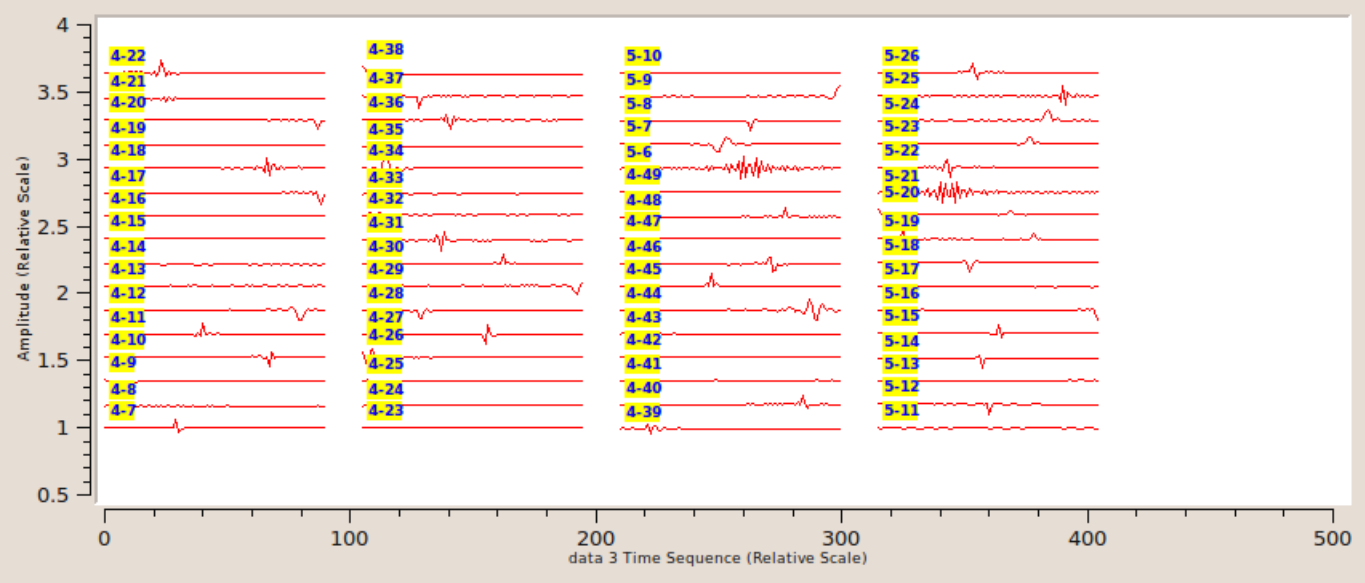

Figure 14: Visibility inspector 'stripchart' plot for Meqtrees SKA simulation that is the same as that in Fig. 5 except that $N_a = 50$. The plot shows the visibility amplitude vs. time for a number of different baselines in the array.

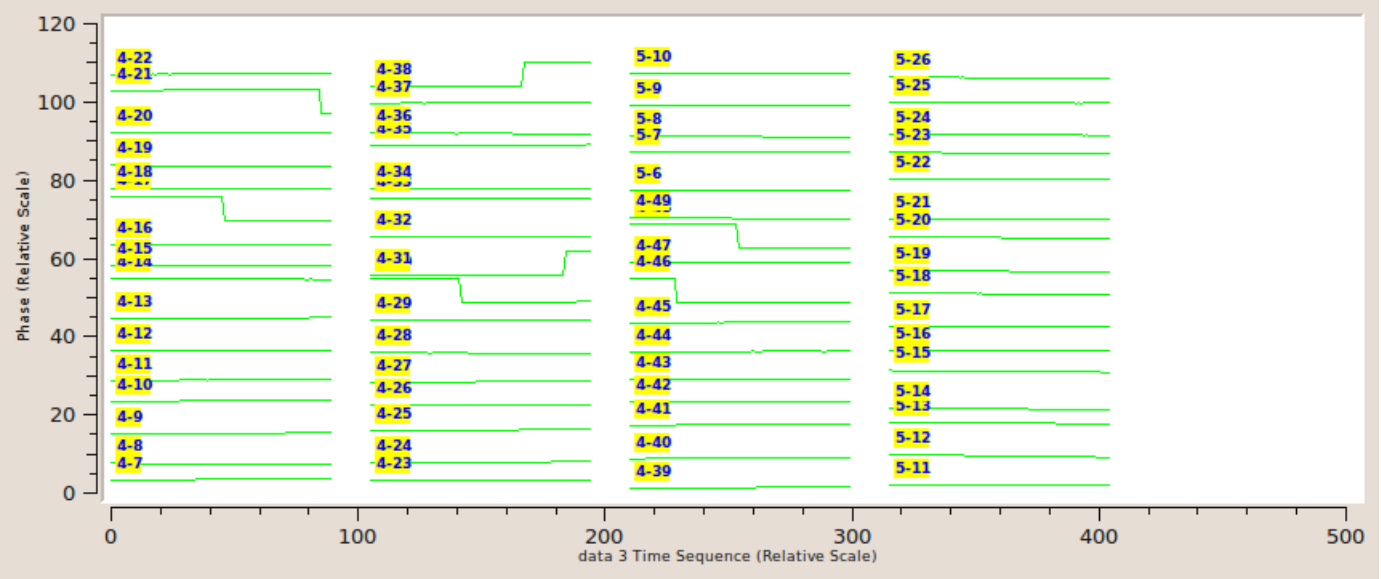

Figure 15: Visibility inspector 'stripchart' plot for Meqtrees SKA simulation that is the same as that in Fig. 5 except that $N_a = 50$. The plot shows the visibility phase vs. time for a number of different baselines in the array.