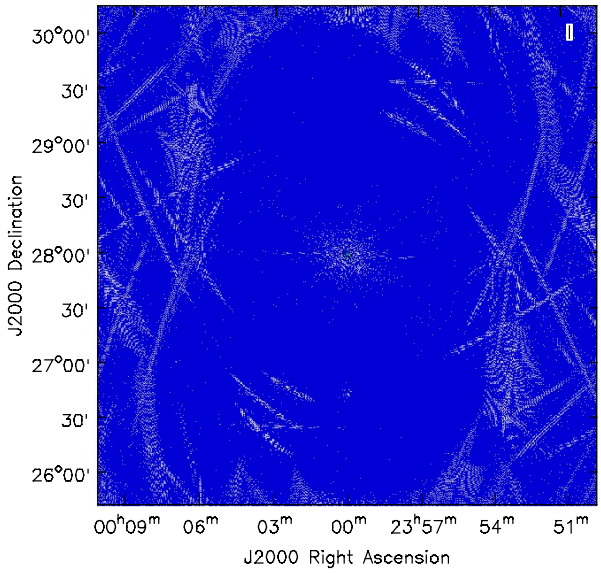

Figure 1: Meqtrees SKA simulation and Meqtrees-generated dirty image of two 1 Jy point sources with 75' separation located at R.A.: $0^h0^m0.1^s$, Dec.:$28^d0^m1^s$ and R.A.: $0^h0^m0.1^s$, Dec.:26^d45^m10s , with Cortes beam and pointing errors (l_{offset} = 0.005 rad = 17.757′, m_{offset} = 0.00123 rad = 4.250′) applied. Simulation: log-spiral config. with N_a = 50; field center: R.A. = $0^h0^m0.1^s$, Dec. = $28^d0^m1^s$; observing freq.: 1400 MHz; number of freq. channels: 64; channel increment: 5.0 MHz; antenna diam.: 12.0 m.; integration time: 60 seconds; scan length: 90 min.; 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'.

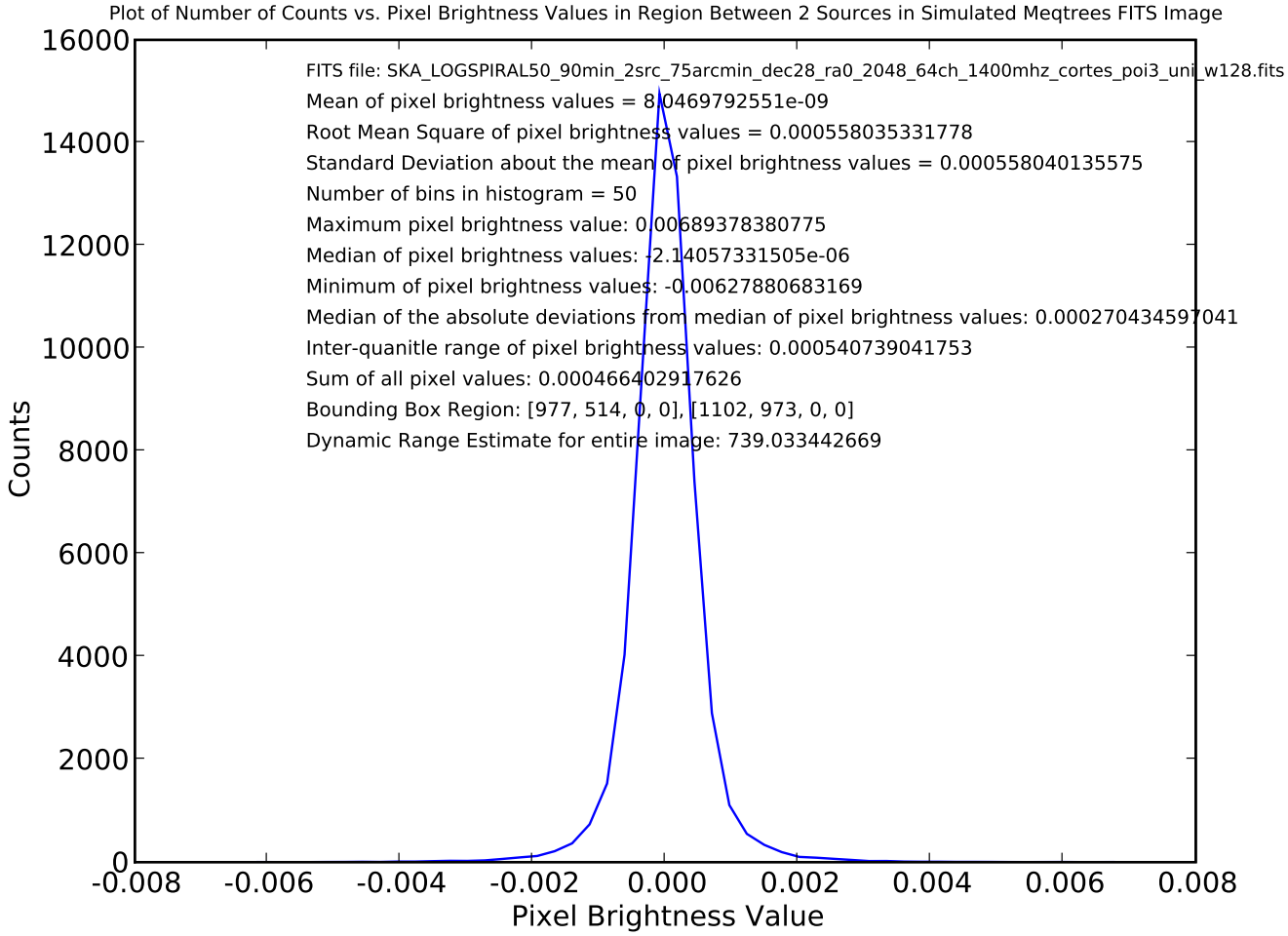

Figure 2: Line plot of counts vs. pixel brightness value for a specified bounding box region (bottom left corner = [977,514,0,0], top right corner = [1102,973,0,0]) between but not including the the two point sources in Fig. 1. Statistical measures calculated within the bounding box region are included 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.

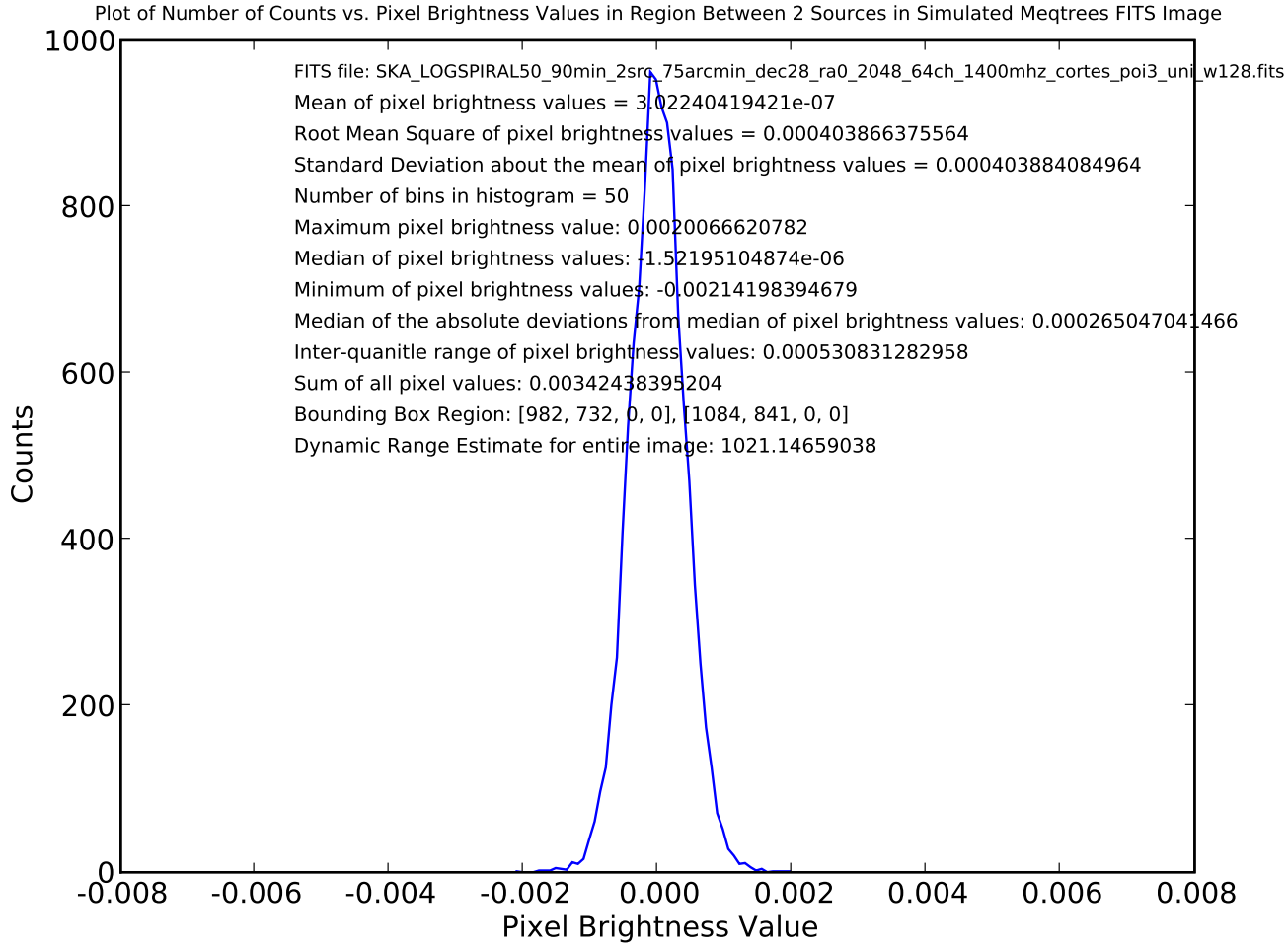

Figure 3: Line plot of counts vs. pixel brightness value for a specified smaller bounding box region (bottom left corner = [982,732,0,0], top right corner = [1084,841,0,0]) between the two point sources in Fig. 1. Statistical measures calculated within the bounding box region are included in the plot. 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.

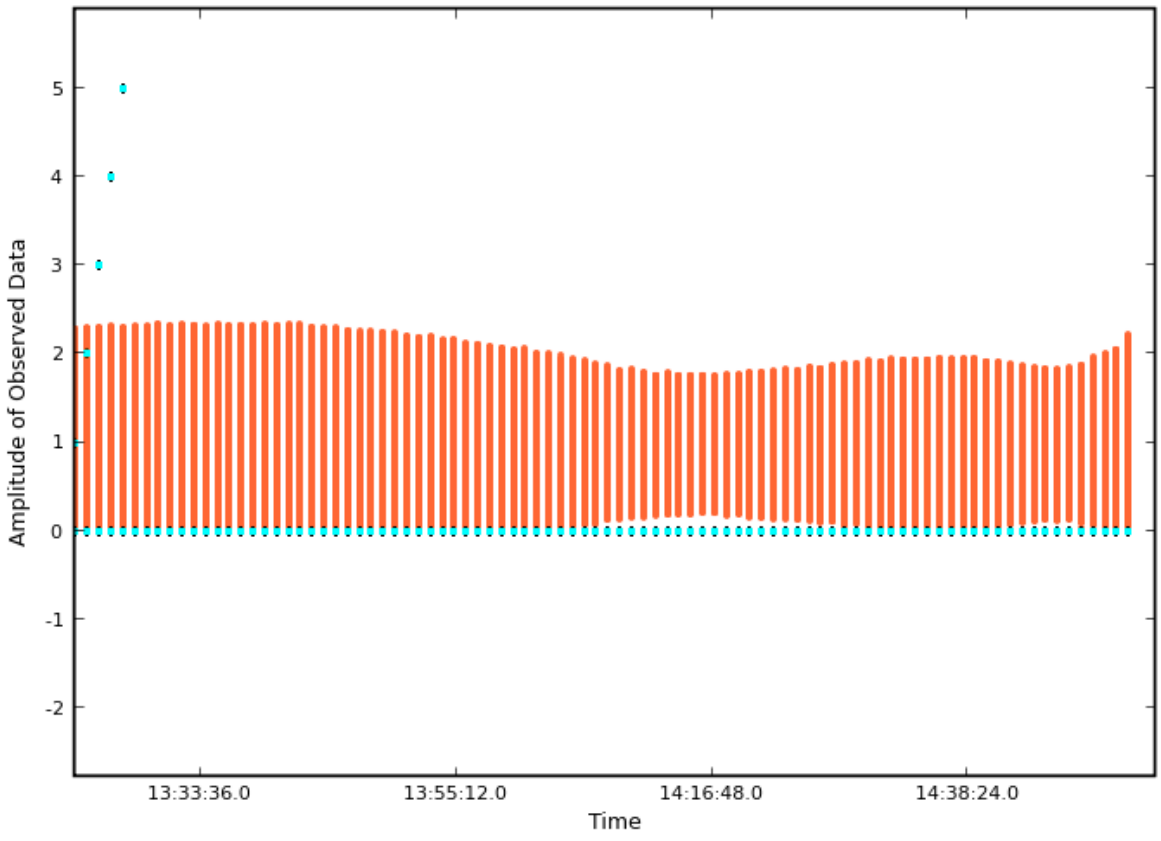

Figure 4: Plot of amplitude of observed visibility data vs. time for Meqtrees SKA simulation that is the same as that in Fig. 1. The plot was generated with CASA using the 'plotxy' command.

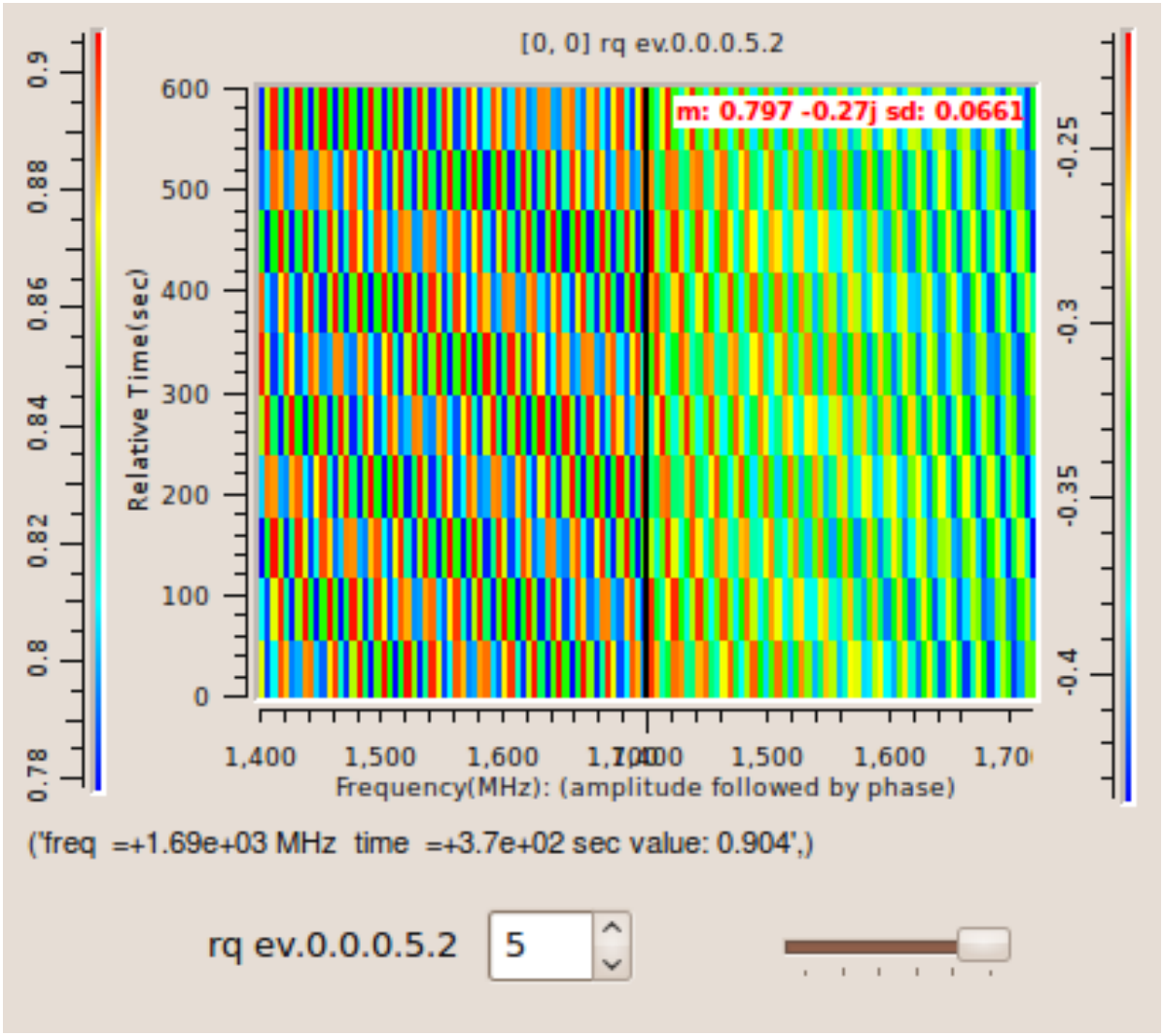

Figure 5: Output visibility inspector plot from Meqtrees SKA simulation that is the same as that in Fig. 1. The plot shows the visibility amplitude (left) and visibility phase (right) as a function of time (y-axis) and frequency (x-axis) for a particular baseline, with the color scale indicating the value.

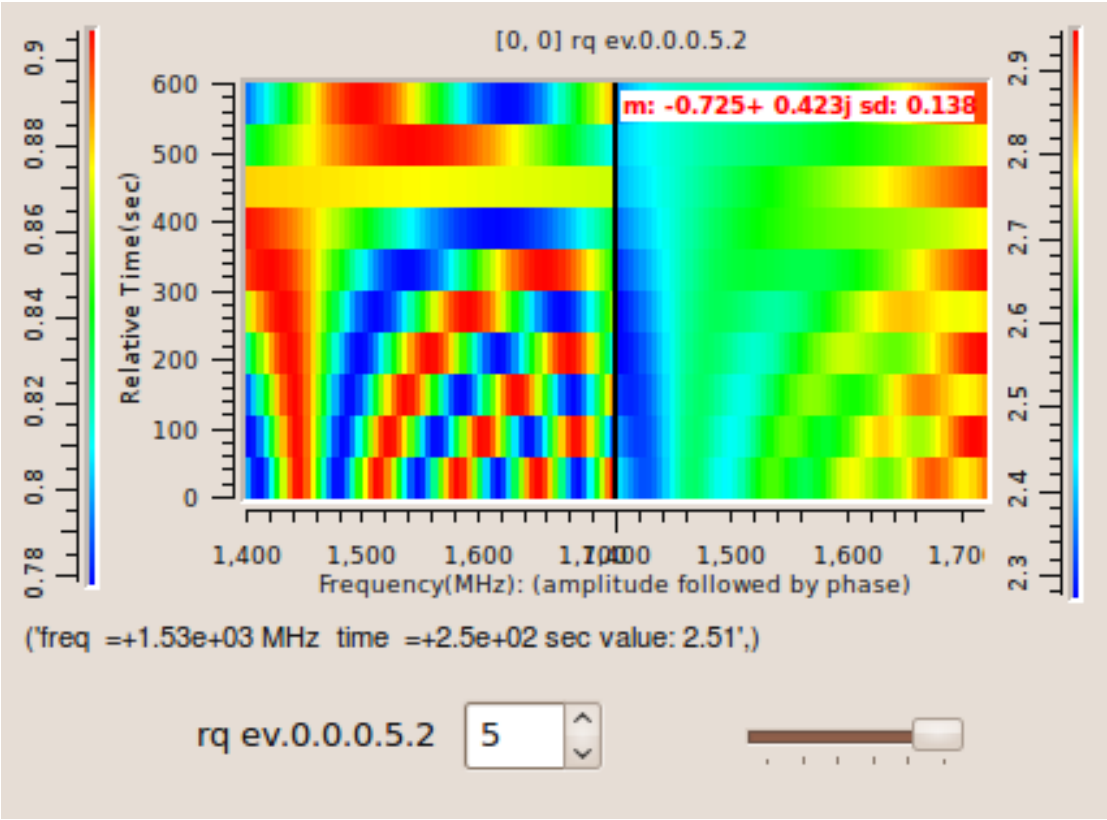

Figure 6: Output visibility inspector plot from Meqtrees SKA simulation that is the same as that for Fig. 1. The plot shows the visibility amplitdue (left) and visibility phase (right) as a function of time (y-axis) and frequency (x-axis) for a particular baseline, with the color scale indicating the value.

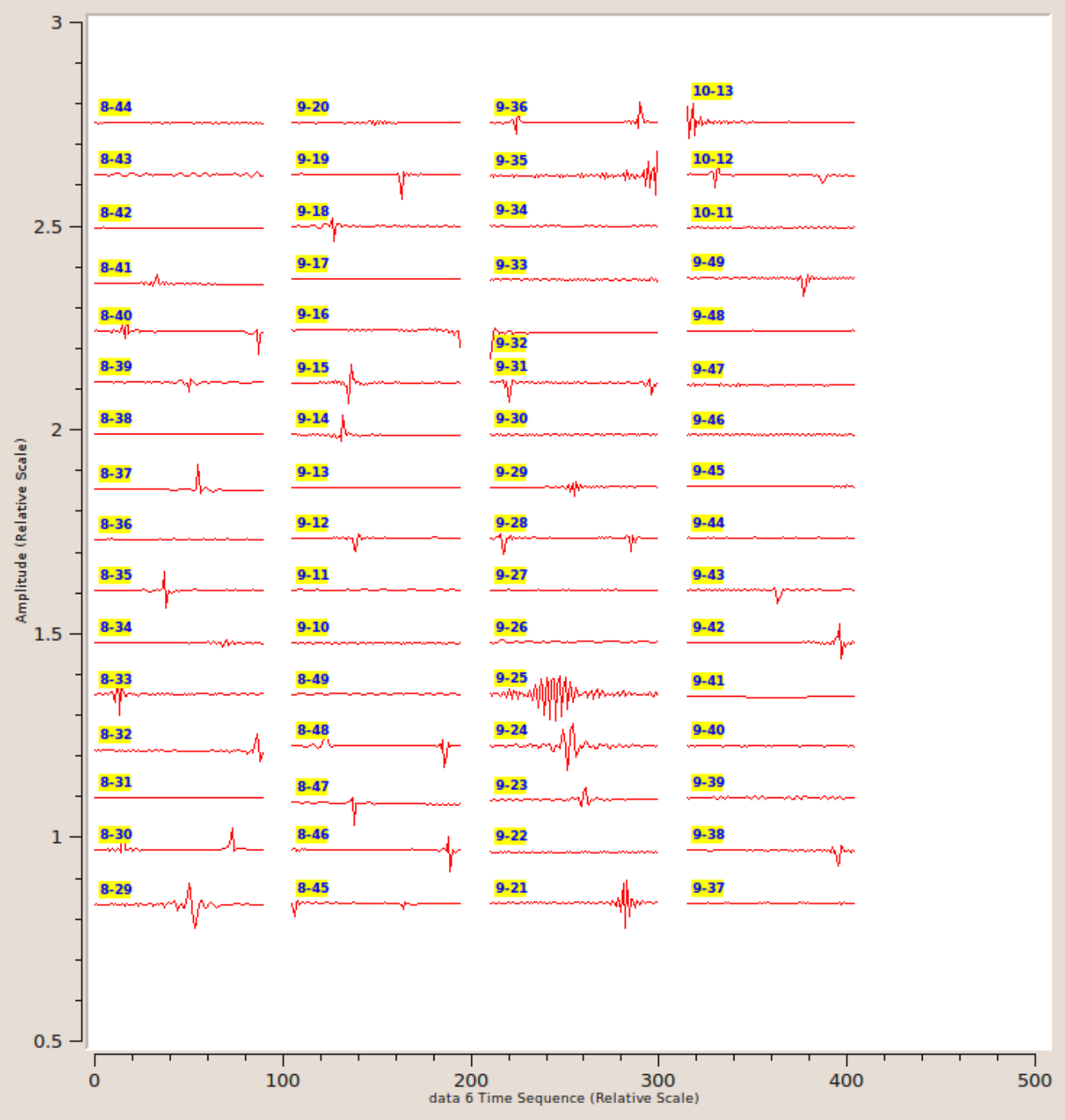

Figure 7: Visibility inspector 'stripchart' plot from Meqtrees SKA simulation that is the same as that for Fig. 1. The plot shows the visibility amplitude vs. time for a number of different baselines in the array.

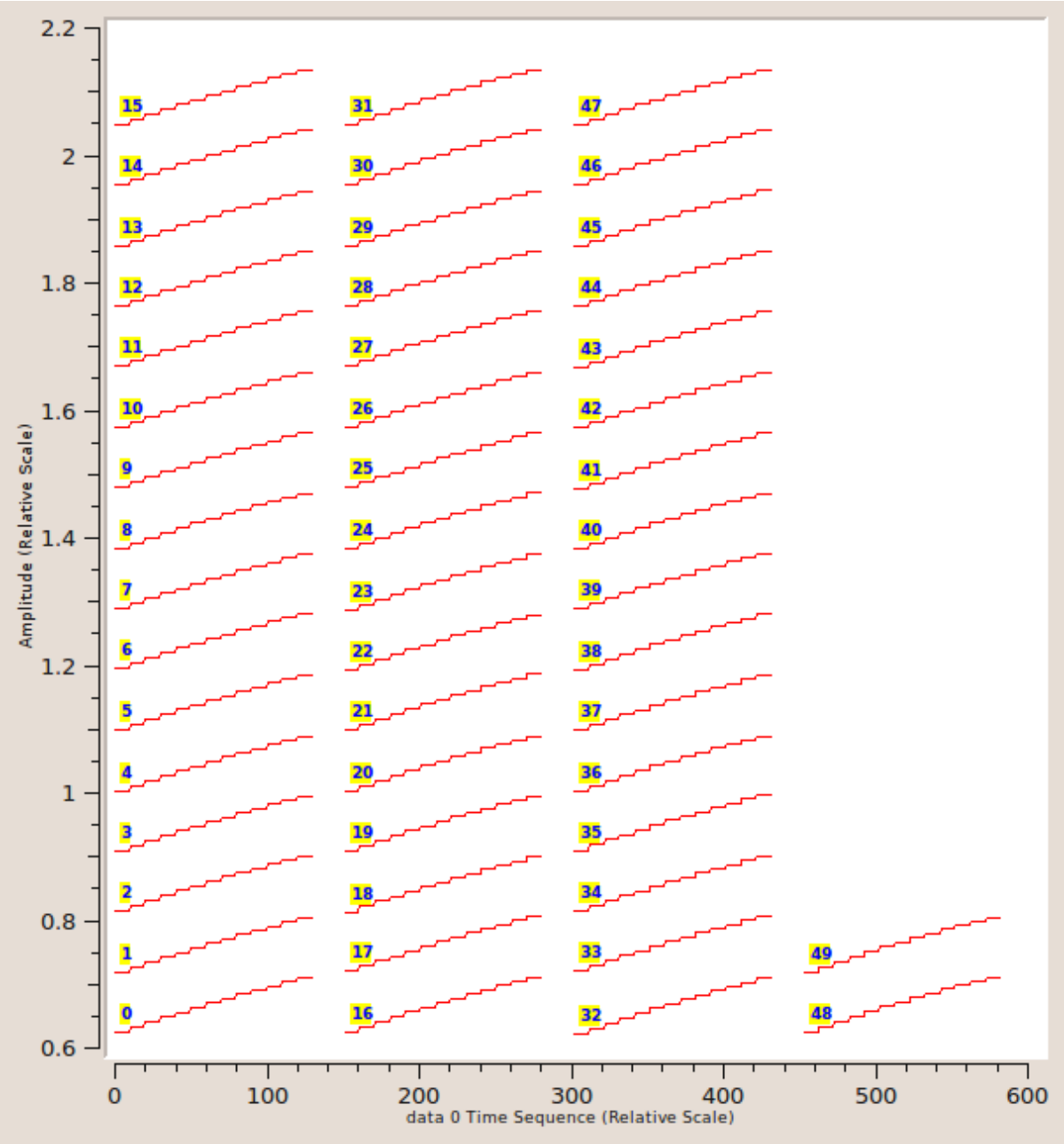

Figure 8: Meqtrees Collection plotter 'stripchart' plot of complex beam gain amplitude (i.e., one E-Jones element) as a function of time for different baselines (i.e., per-baseline amplitude tracks) for Meqtrees SKA simulation that is the same as that in Fig. 1.

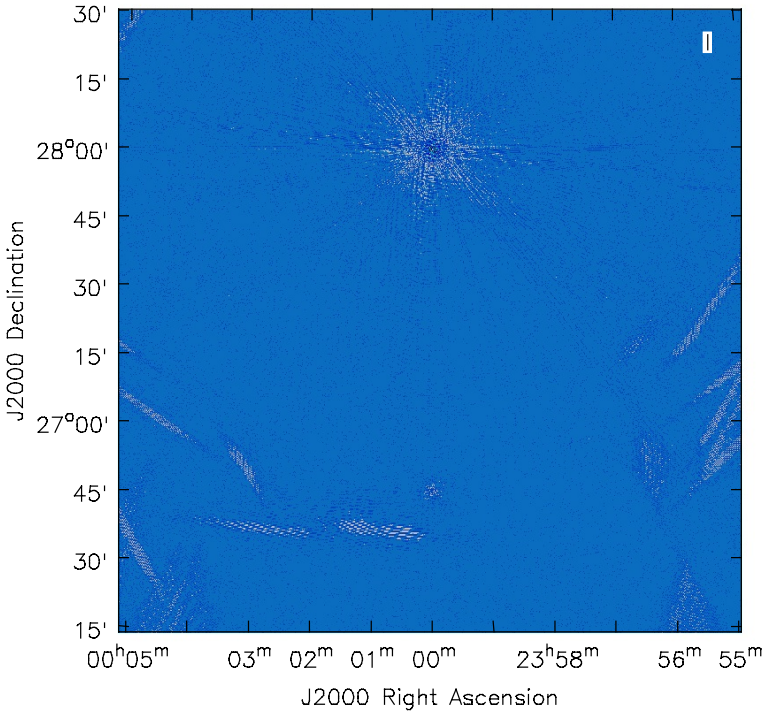

Figure 9: Meqtrees SKA simulation and Meqtrees-generated dirty image exactly the same as that in Fig. 1 except that $N_a = 75$.

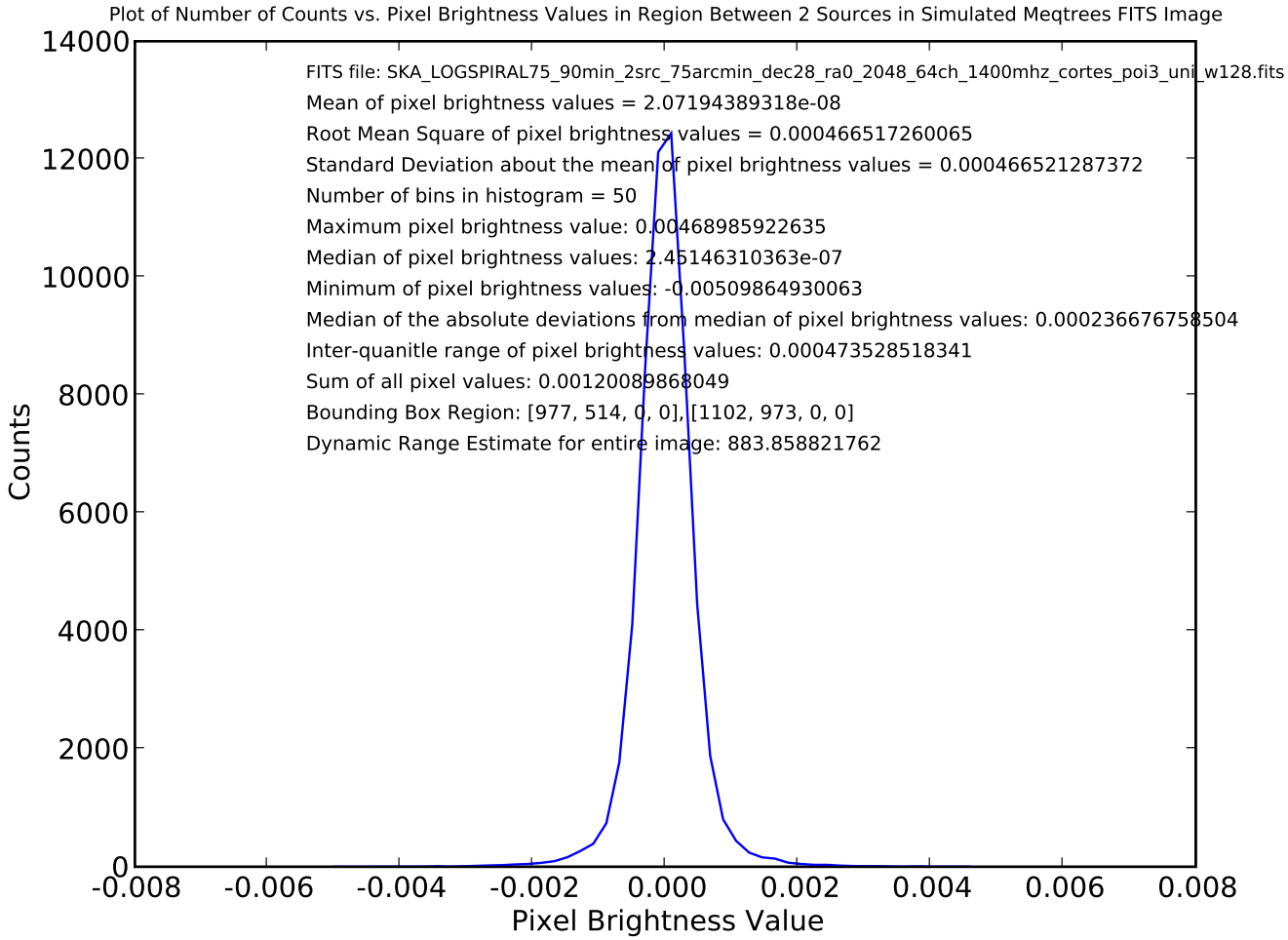

Figure 10: Line plot of counts vs. pixel brightness value for a specified bounding box region (bottom left corner = [977,514,0,0], top right corner = [1102,973,0,0]) between but not including the the two point sources in Fig. 9. Statistical measures calculated within the bounding box region are included 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.

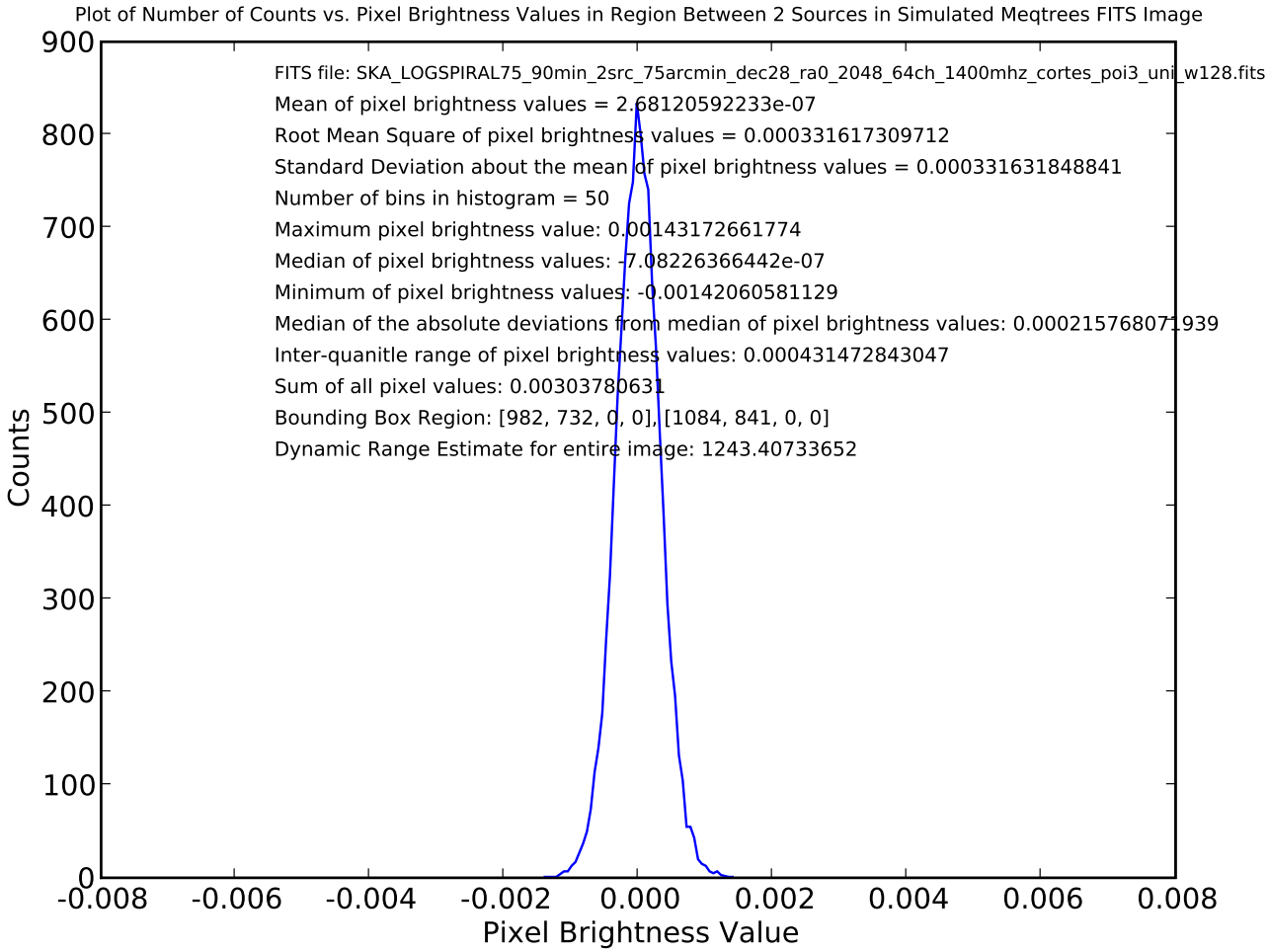

Figure 11: Line plot of counts vs. pixel brightness value for a specified smaller bounding box region (bottom left corner = [982,732,0,0], top right corner = [1084,841,0,0]) between the two point sources in Fig. 9. Statistical measures calculated within the bounding box region are included in the plot. 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.

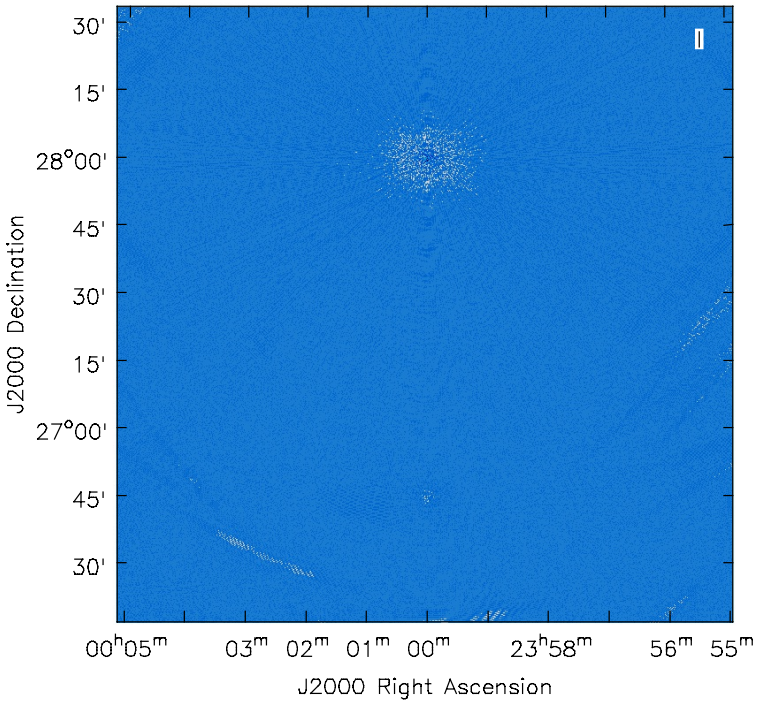

Figure 12: Meqtrees SKA simulation and Meqtrees-generated dirty image exactly the same as that in Fig. 1 except that $N_a = 100$.

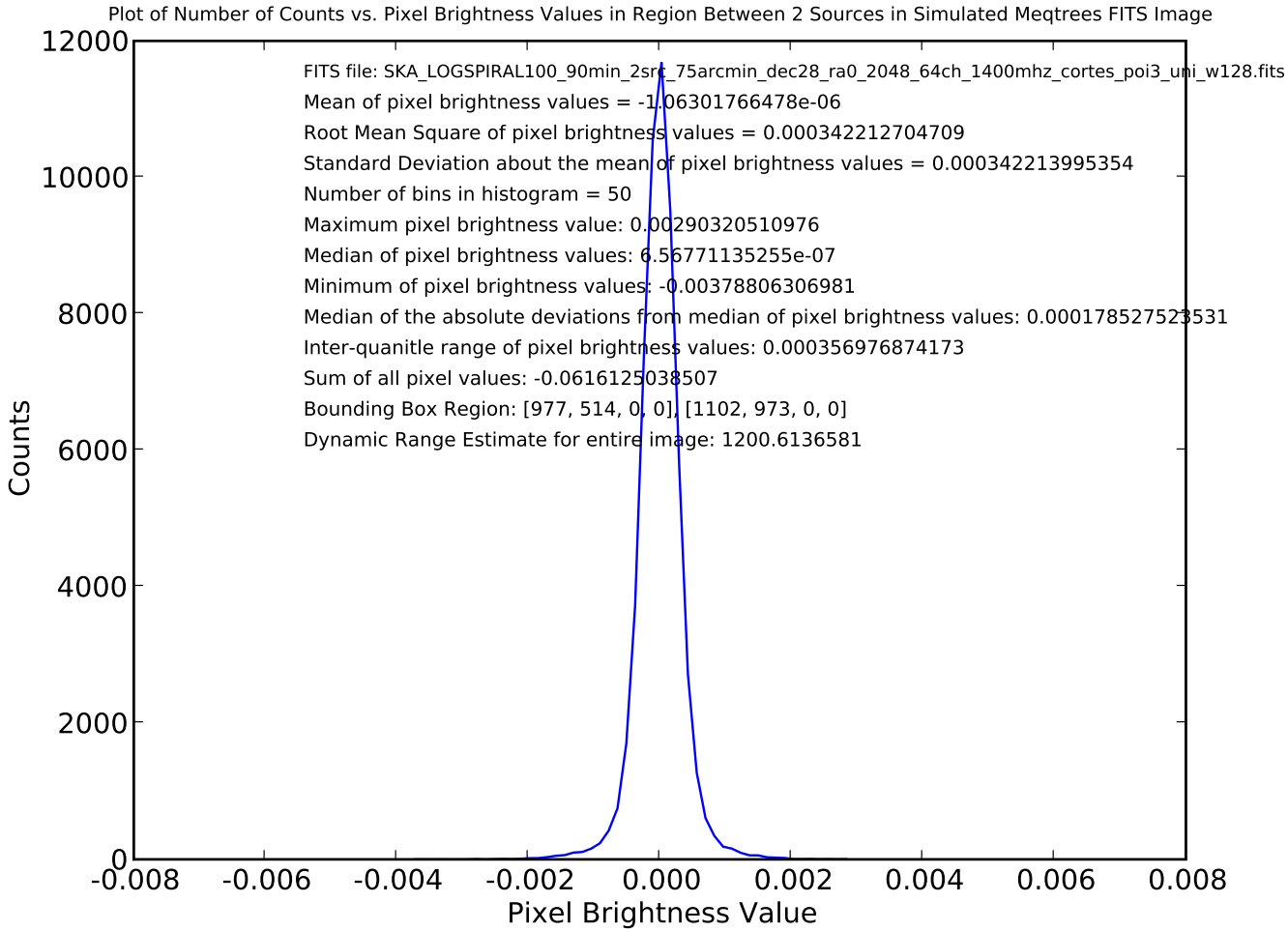

Figure 13: Line plot of counts vs. pixel brightness value for a specified bounding box region (bottom left corner = [977,514,0,0], top right corner = [1102,973,0,0]) between but not including the the two point sources in Fig. 12. Statistical measures calculated within the bounding box region are included 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.

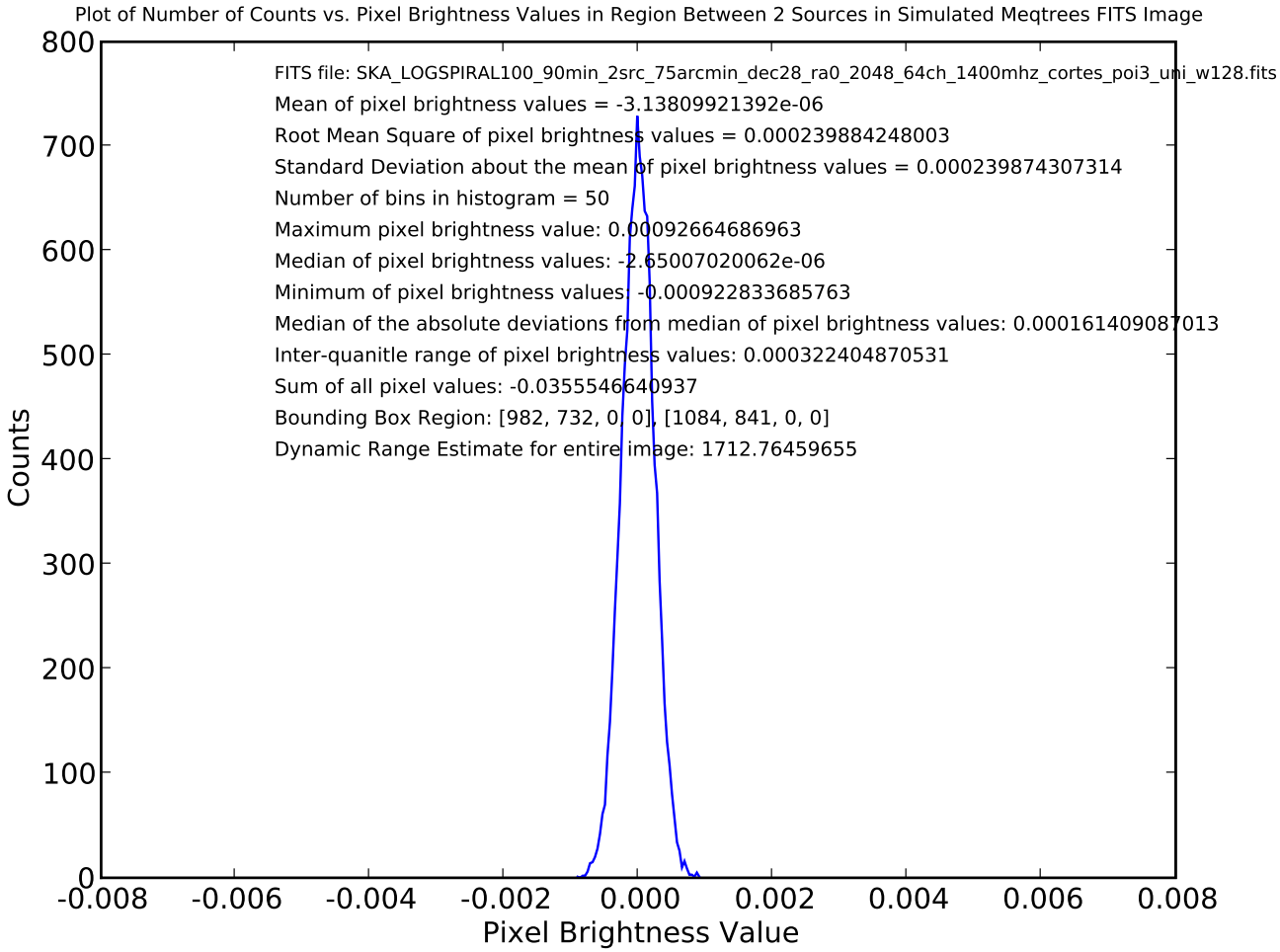

Figure 14: Line plot of counts vs. pixel brightness value for a specified smaller bounding box region (bottom left corner = [982,732,0,0], top right corner = [1084,841,0,0]) between the two point sources in Fig. 12. Statistical measures calculated within the bounding box region are included in the plot. 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.

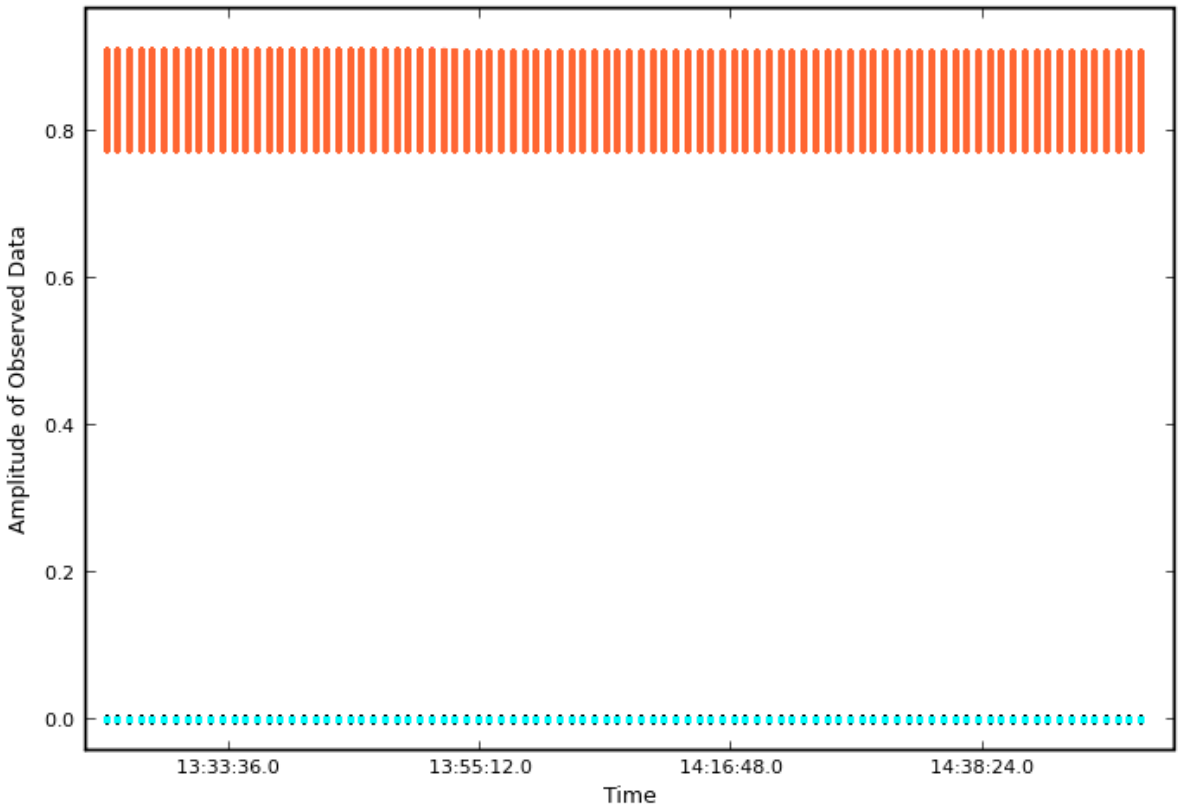

Figure 15: Plot of amplitude of observed visibility data vs. time for Meqtrees SKA simulation that is the same as that in Fig. 12. The plot was generated with CASA using the 'plotxy' command.

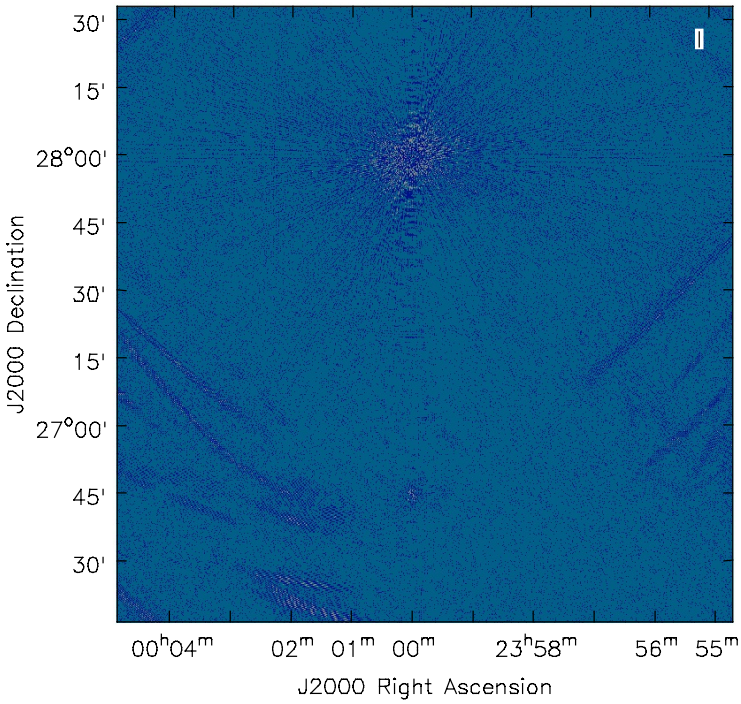

Figure 16: Meqtrees SKA simulation and Meqtrees-generated dirty image exactly the same as that in Fig. 1 except that $N_a = 125$.

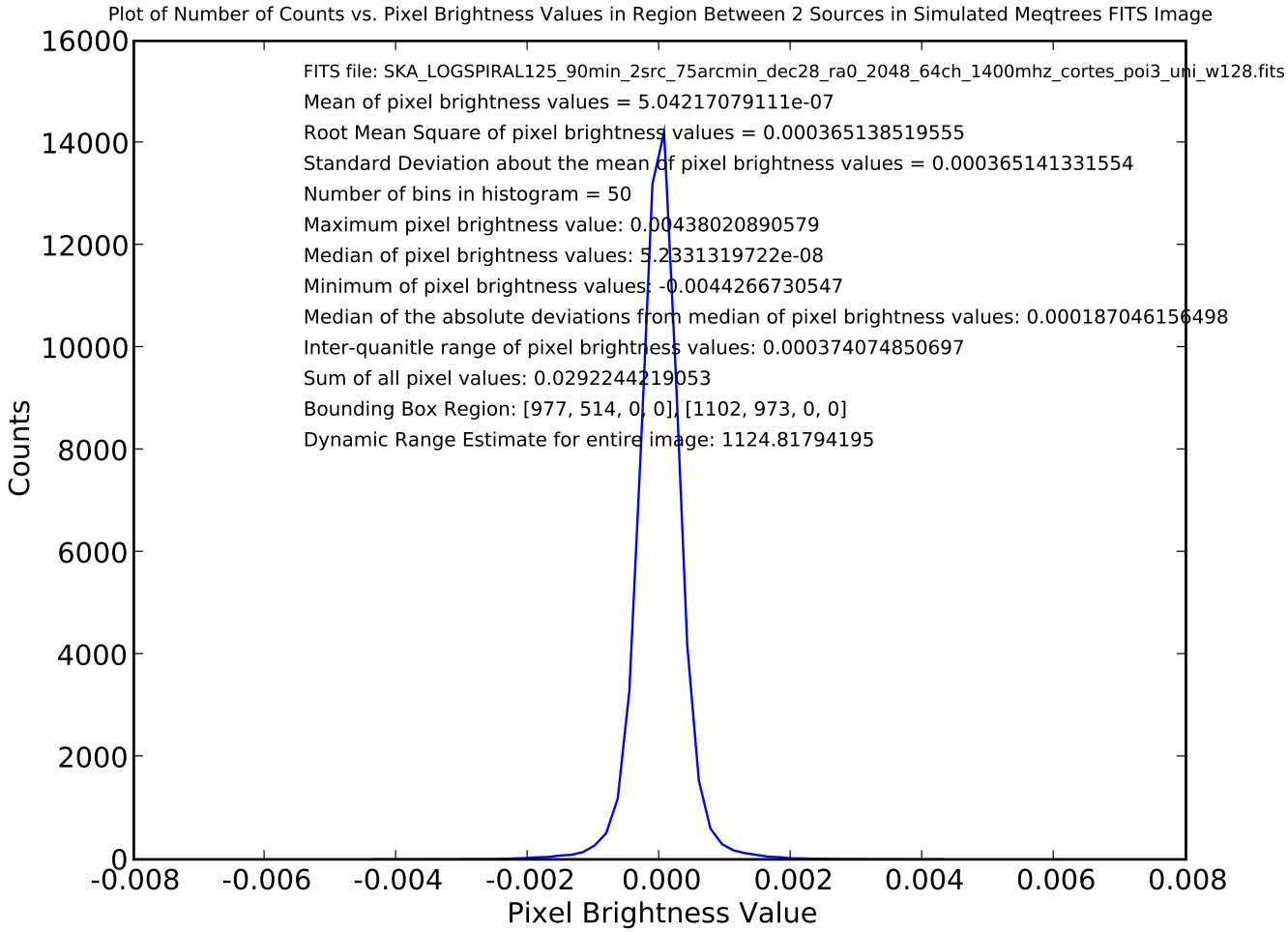

Figure 17: Line plot of counts vs. pixel brightness value for a specified bounding box region (bottom left corner = [977,514,0,0], top right corner = [1102,973,0,0]) between but not including the the two point sources in Fig. 16. Statistical measures calculated within the bounding box region are included 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.

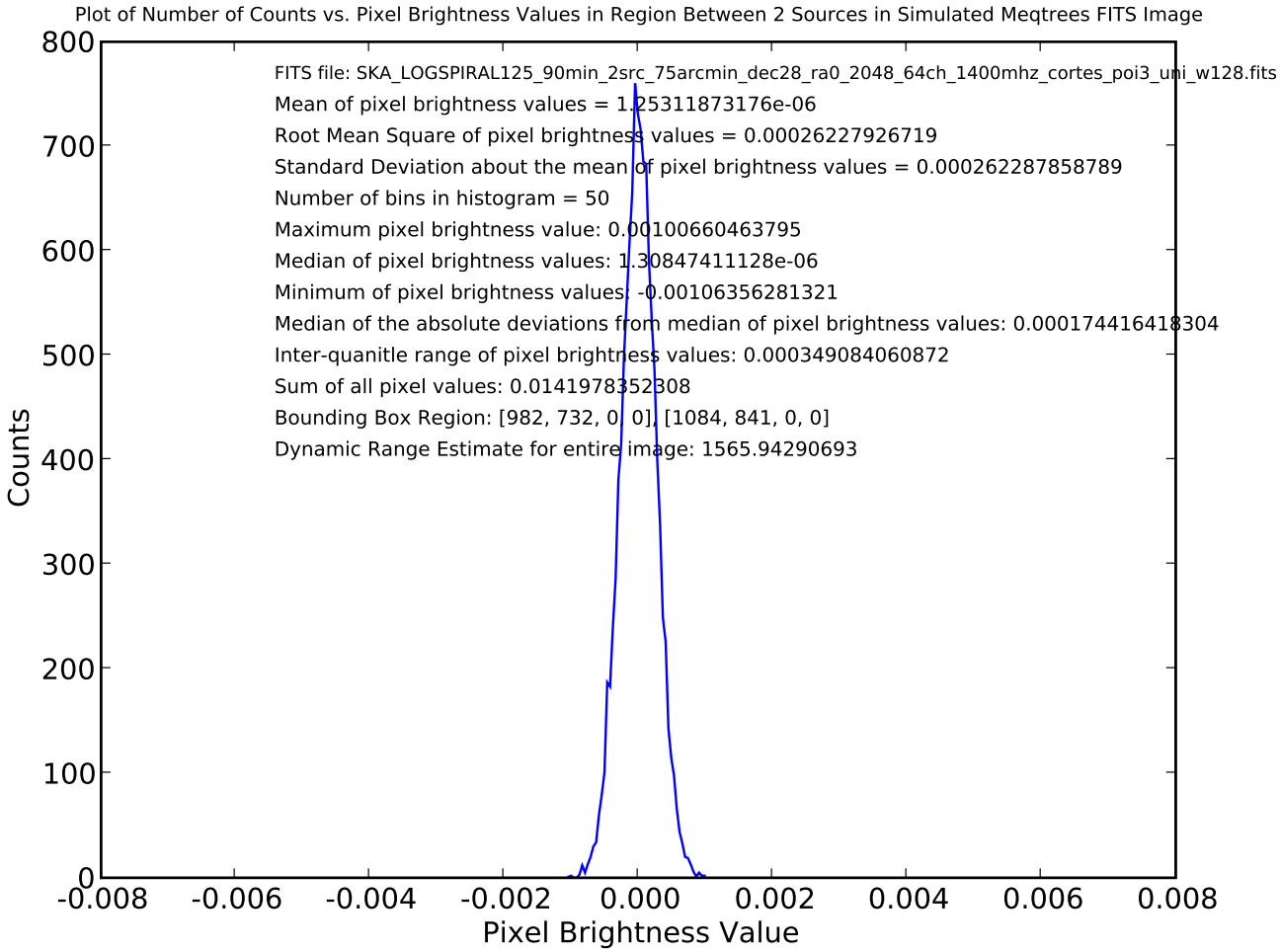

Figure 18: Line plot of counts vs. pixel brightness value for a specified smaller bounding box region (bottom left corner = [982,732,0,0], top right corner = [1084,841,0,0]) between the two point sources in Fig. 16. Statistical measures calculated within the bounding box region are included in the plot. 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.