

Various methods of calibration of the STEREO/SWAVES antennas

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In April, NASA's two STEREO spacecraft will be launched. On board, they carry a sophisticated radio experiment, called SWAVES, which is designed to increase our knowledge of the physical mechanisms in the solar system. The key technology, used by SWAVES is the direction finding capability in addition to the existence of two spacecraft. This new method makes it possible to triangulate radio sources. Direction finding requires the reception properties of the antennas to be known very accurately. We performed several different methods to calibrate the SWAVES antennas. In the paper, the methods are described and compared and the results are presented and discussed with respect to advantages and disadvantages of the different methods.