

# *The Parabolic Reflector Antenna in Radio Astronomy and Communication*

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All mathematical calculations and their graphical or tabular results have been made with the aid of the software application *Mathematica*, version 5.2 from Wolfram Research.

The Mathematica expressions are assembled. There are two files, both in the usual Mathematica “Notebook” format. The smaller file (**MathRoutinesBook.nb, 64 kB**) contains the bare routines; the larger one (**MathRoutOutputBook.nb, 4 MB**) presents the same routines but with the graphical output added as illustration of the result.

The routines are listed in order of appearance in the book and identified in the text as Mat. x,y, where x is the chapter number and y the running number within the chapter. This identification is also given in the first line of each expression together with a short title.

Users with access to Mathematica can copy the individual routines into their Notebook Editor and run the routines with the input parameters adjusted to their choice.