Title: First MEM Task IRMEO in IRAF

Authors Name: Nailong Wu

5113-61 NBS. SNLY 175163 N94-22551

Abstract:

The first task for image restoration using the Maximum Entropy Method (MEM) in IRAF, called IRMEO, is described. The underlining algorithm is the approximate Newton method for optimization. The basic input images and parameters for deconvolution are described in some detail. Results of preliminary tests, including the number of iterations, required CPU time on a variety of computers, and deconvolved images are reported and compared with those from other deconvolution methods. The merits and limitations of this task are pointed out. The possible development of better MEM tasks on the basis of IRMEO is also discussed.