
Subject: 3D data cube search routine - can anyone help please ..
Posted by [Professor Glenn J Whi](#) on Mon, 18 Dec 1995 08:00:00 GMT
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We are trying to decompose the data contained in a 3-D data cube (i.e. x, y, z co-ordinates with some value at location (x,y,z)) into a collection of 3-D gaussian structures. This is a set of astronomical spectroscopy measurements of the motions of gas clouds in a star forming region of the Galaxy.

Does anybody have an IDL routine which could take a such a data cube, and then search inside it for many gaussian (or some arbitrary form) shaped 3-D objects, and which then reports their location and size (to 1/e of half intensity or sigma) within the data cube please.

I would imagine this is a reasonably standard algorithm in image recognition, but I can't find anything beyond 2-D routines in the various IDL .pro compilations

Many thanks for your help

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