Subject: Source code for list/pattern matching
Posted by Octavi Fors on Wed, 28 Apr 1999 07:00:00 GMT
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Hi all!

This is my second trial looking for some code (preferably IDL) able to match two points lists. My purpose is, having a pair of stereoimages with a (X,Y) list of detected maxima for each image, to get a third list of 'homologous' points.

I know a couple of articles that describe several algorithms about this, but none of them are apparently implemented in a known language. Here is a list of some of them, please let me know any fresh idea:

- Ogawa,H. Pattern Recognition, 19, 35, 1986. Makes use of Delaunay triangulation technique to tesselate planes between neighbouring points. -> (I know Delaunay triangulation is implemented in IDL, but I've not seen any implentation of the complete algorithm proposed by Ogawa).

- Groth,E. Astronomical Journal 91,5, 1986. Relies on similar triangles technique (very similar to Delaunay but much time consuming). Although it's implemented in IRAF (an astronomical package) I've no news about any other implementation in a more 'user-friendly' language (IDL, C or FORTRAN).

- Nasrabadi and Choo, IEEE Trans. Neural Networks, 3, 5, 1992, it's a neural network-based approach. In particular, with Hopfield-Tank one.

Does anybody have knowledge about any implementation of one of these algorithms?

Since Delaunay triangulation seems to be one of the most popular in among IDL-users, it may be possible to ge some tested code?

Thanks in advance,

Octavi..


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