

Pseudo Ex1

Input:

Image1 = sparse star field (10-20 stars).

Image2 = dense star field (hundreds of stars).

1. Init: ans=ID, max=2
 2. L1= List of stars coordinates in Image1.
 3. L2= List of stars coordinates in Image 2.
 4. For each pair s1,s2 at L1
 5. For each pair p1,p2 at L2
 6. Calc $T[s1,s2,p1,p2]$
 7. $T[L1] = L^1$
 8. Count (L1^,L2,EPS)
 9. If (count>max){ ans ->T}
- Return ans

Where T stand for Transformation Matrix as:

For each (s1,s2)->L1, (p1,p2)->L2:

- T matches s1 to p1 and s2 to p2.
- By these matching ,we can construct in T the transformation function.
- From s1,p1 we shall receive the Euclidian transform.
- As from s2,p2 the scaling and rotation factor.
- If the $c > 2$, meaning our transform found more than 2 matching(In EPS accuracy) return:
- the list of the Transform stars at L1 corresponding to L2 stars.
- Note: one can randomize the algorithm if wishes to save computational time.