Node-level Permutation Matrix

	A_1	A_2	A_3	A_4	A_5	
B_1	1	0	0	0	0	
B_2	0	1	0	0	0	
B_3	0	0	1	0	0	
B_4	0	0	0	1	0	
B_5	0	0	0	0	1	

NNC

ENC

	A_{12}	A_{14}	A_{15}	A_{23}	A_{25}	A_{35}	A_{45}	
B_{12}	1	0	0	0	0	0	0	
B_{14}	0	1	0	0	0	0	0	
B_{15}	0	0	1	0	0	0	0	
B_{23}	0	0	0	1	0	0	0	
B_{25}	0	0	0	0	1	0	0	
B_{35}	0	0	0	0	0	1	0	
B_{45}	0	0	0	0	0	0	1	

Delaunay Triangulation Graph

Edge-level Permutation Matrix

(a) Key-point Annotations

(b) Bi-level Noisy Correspondence