

SGN-3507 Introduction to Medical Image Processing

Ulla Ruotsalainen

Exam A.

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Please, all answers in English.

1. What is the Radon transform? Describe how two spots: one small spot in the very center of the field of view and other larger spot clearly off-center in the distribution domain, are visualized in the projection (sinogram) domain.
2. Describe the principles of filtered backprojection and backprojection image reconstruction methods.
3. What kind of image reconstruction method is OSEM?
4. What image alignment (image fusion) method could be used for images from different imaging modalities of the same person? Give a rough description of the method.
5. How you can search data from a patient data base? How you could give the same data for outside use?