

The cone-beam transform and spherical convolution operators

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The cone-beam transform consists of integrating a function defined on the three-dimensional space along every ray that starts on a certain scanning set. Based on Grangeat's formula, Louis [2016, Inverse Problems, 32 115005] states a reconstruction formula based on a new generalized Funk-Radon transform. In this talk, we give a singular value decomposition of this generalized Funk-Radon transform and discuss its application to the cone-beam integrals.

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