Fractional Radon Transform and Transform of Wigner Operator

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(Received: 2002-8-14; Revised:)

Abstract: Based on the Radon transform and fractional Fourier transform we introduce the fractional Radon transformation (FRT). We identify the transform kernel for FRT. The FRT of Wigner operator is derived, which naturally reduces to the projector of eigenvector of the rotated quadrature in the usual Radon transform case.

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