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Singular integrals related to the Radon transform and boundary value problems. (English)

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Let Ω be a manifold without boundary and assume that through each point P in Ω passes a hypersurface Ω_P that carries a singular density K_P . Given a function u , the singular Radon transform of u is the new function on Ω , whose value at P is the integral on Ω_P of u against K_P . Examples and applications arising from integral geometry and several complex variables are discussed.

Reviewer: [F.Natterer](#)

MSC:

- [42B20](#) Singular and oscillatory integrals (Calderón-Zygmund, etc.)
- [58J40](#) Pseudodifferential and Fourier integral operators on manifolds
- [44A15](#) Special integral transforms (Legendre, Hilbert, etc.)

Cited in **2** Reviews
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Keywords:

[Hilbert integral](#); [manifold without boundary](#); [hypersurface](#); [singular density](#); [Radon transform](#)

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