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Localization algorithms for singularities of solutions to convolution equations of the first kind. (English) [Zbl 1158.65087](#)

J. Inverse Ill-Posed Probl. 16, No. 7, 639-650 (2008).

The authors construct and investigate localization algorithms for isolated singularities of a solution of a linear convolution equation of the first kind whose right-hand side to be given using an averaging method defined by an averaging functional to obtain the singularities and using the Fourier transform.

Reviewer: [Hu Chuangan \(Tianjin\)](#)

MSC:

[65R20](#) Numerical methods for integral equations

[45E10](#) Integral equations of the convolution type (Abel, Picard, Toeplitz and Wiener-Hopf type)

Cited in **1** Review
Cited in **3** Documents

Keywords:

isolated singularity; averaging functional; separation threshold; discontinuity point; Fourier transform; Cauchy-Bunyakovskii inequality; localization algorithms; linear convolution equation of the first kind

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References:

- [1] Yu V., *Uspehi Fiz. Nauk* 165 pp 2– (1995)
- [2] Kozlov V. P., *Optics and Spectroscopy* 16 pp 3– (1964)
- [3] Kozlov V. P., *Optics and Spectroscopy* 17 pp 2– (1964)
- [4] Ageev A. L., *Computing Methods and Programming* 8 pp 275– (2007)
- [5] Kostousov V. B., *Proc. of Mathematics and Mechanics Institute. Ekaterinburg* pp 11– (2005)
- [6] Ageev A. L., *Izv. Vuzov. Matematika* 11 pp 1– (2007)
- [7] Antonova T. V., *Izv. Vuzov. Matematika* 7 pp 65– (2001)
- [8] Antonova T. V., *J. Inv. Ill-Posed Problems* 10 pp 2– (2002)
- [9] Antonova T. V., *Fiziki* 40 pp 6– (2000)
- [10] Antonova T. V., *VINITI* 17.10 00 pp 2639– (2000)
- [11] Antonova T. V., *Proc. of the Steklov Institute of Mathematics* 1 pp 145– (2002)
- [12] Ageev A. L., *Computation Mathematics and Mathematical Physics* 48 pp 8– (2008)

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