

## **INVERSE PROBLEM TO DETERMINE ORDER OF DERIVATIVE AND KERNEL IN GENERALIZED TIME FRACTIONAL DIFFUSION EQUATION**

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A generalized time fractional diffusion equation containing a lower order term of a convolutional form is considered. Inverse problem to determine the order of a fractional derivative and a kernel of the lower order term from measurements of states over the time is posed. Existence, uniqueness and stability of the solution of the inverse problem is proved. Results are global in the sense that no restrictions on time interval are imposed.