

Lamm, Patricia K.

Estimation of discontinuous coefficients in parabolic systems: Applications to reservoir simulation. (English) [Zbl 0612.93014](#)

SIAM J. Control Optimization 25, 18-37 (1987).

A spline-based technique for the estimation of spatially varying parameters in parabolic systems is considered. In particular, it is allowed that the parameters are discontinuous. The method is restricted to the case of one space dimension.

Reviewer: [J.Sprekels](#)

MSC:

- [93B30](#) System identification
- [35R30](#) Inverse problems for PDEs
- [93C20](#) Control/observation systems governed by partial differential equations
- [35K10](#) Second-order parabolic equations
- [35R25](#) Ill-posed problems for PDEs
- [65D07](#) Numerical computation using splines
- [65M30](#) Numerical methods for ill-posed problems for initial value and initial-boundary value problems involving PDEs
- [76S05](#) Flows in porous media; filtration; seepage

Cited in **1** Review
Cited in **7** Documents

Keywords:

[parameter estimation](#); [discontinuous coefficients](#); [spline approximation](#); [parabolic systems](#)

Full Text: [DOI](#)