

Gejadze, I. Yu.; Le Dimet, F.-X.; Shutyaev, V.

On analysis error covariances in variational data assimilation. (English) Zbl 1168.65357
SIAM J. Sci. Comput. 30, No. 4, 847-1874 (2008).

MSC:

65K10 Numerical optimization and variational techniques

49K20 Optimality conditions for problems involving partial differential equations

49M15 Newton-type methods

Cited in 17 Documents

Keywords:

data assimilation; optimal control; analysis error; Hessian; covariance operator; Broyden-Fletcher-Goldfarb-Shanno (BFGS) method; nonlinear evolution model; quasi-Newton BFGS algorithm; numerical examples

Software:

L-BFGS; TAPENADE

Full Text: [DOI](#)