

Cornell University Library We gratefully acknowledge support from the Simons Foundation and member institutions

(Help | Advanced search)

arXiv.org > math > arXiv:1107.2194

Mathematics > Analysis of PDEs

Kozlov-Maz'ya iteration as a form of Landweber iteration

David Maxwell

(Submitted on 12 Jul 2011)

We consider the alternating method of Kozlov and Maz'ya for solving the Cauchy problem for elliptic boundary-value problems. Considering the case of the Laplacian, we show that this method can be recast as a form of Landweber iteration. In addition to conceptual advantages, this observation leads to some practical improvements. We show how to accelerate Kozlov-Maz'ya iteration using the conjugate gradient algorithm, and we show how to modify the method to obtain a more practical stopping criterion.

Comments:28 pages, 4 figuresSubjects:Analysis of PDEs (math.AP)Cite as:arXiv:1107.2194 [math.AP]
(or arXiv:1107.2194v1 [math.AP] for this version)

Submission history

From: David Maxwell [view email] [v1] Tue, 12 Jul 2011 06:19:07 GMT (118kb,D)

Which authors of this paper are endorsers?

Link back to: arXiv, form interface, contact.

All papers Go!
Obversion
O

Search or Article-id

NASA ADS

Bookmark(what is this?)