

# **A minimization method on the basis of embedding the feasible set and the epigraph**

Zabotin I., Shulgina O., Yarullin R.

*Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia*

---

## **Abstract**

© Published under licence by IOP Publishing Ltd. We propose a conditional minimization method of the convex nonsmooth function which belongs to the class of cutting-plane methods. During constructing iteration points a feasible set and an epigraph of the objective function are approximated by the polyhedral sets. In this connection, auxiliary problems of constructing iteration points are linear programming problems. In optimization process there is some opportunity of updating sets which approximate the epigraph. These updates are performed by periodically dropping of cutting planes which form embedding sets. Convergence of the proposed method is proved, some realizations of the method are discussed.

<http://dx.doi.org/10.1088/1757-899X/158/1/012098>

---