

Rozhkovskaya, T. N.

One-sided problems for elliptic operators with convex constraints on the gradient of the solution. II. (English. Russian original) [Zbl 0598.35049](#)

Sib. Math. J. 26, 750-757 (1985); translation from *Sib. Mat. Zh.* 26, No. 5(153), 150-158 (1985).

[For Part I, see *ibid.* 26, 414-424 (1985); translation from *Sib. Mat. Zh.* 26, No.3(151), 134-146 (1985; [Zbl 0587.35040](#)).]

This is a continuation of Part I. The existence theorem discussed in the first part is complemented here by results concerning the smoothness and uniqueness of the solution.

Reviewer: [C.Constanda](#)

MSC:

[35J85](#) Unilateral problems; variational inequalities (elliptic type) (MSC2000)

Cited in **1** Document

[35B65](#) Smoothness and regularity of solutions to PDEs

Keywords:

second order elliptic operator; existence theorem

Full Text: [DOI](#)

References:

- [1] T. N. Rozhkovskaya, ?One-sided problems for elliptic operators with convex constraints on the gradient of the solution. I?, *Sib. Mat. Zh.*,26, No. 5, 134-146 (1985). · [Zbl 0587.35040](#)
- [2] O. A. Ladyzhenskaya and N. N. Ural'tseva, *Linear and Quasilinear Elliptic Equations*, Academic Press, New York (1968).
- [3] T. N. Rozhkovskaya, ?On unilateral problems with convex constraints on the gradient?, in: *Partial Differential Equations, Trudy Sem. S. L. Soboleva*, No. 2 (1981), pp. 78-85. · [Zbl 0509.35041](#)
- [4] L. C. Evans, ?A second-order elliptic equation with gradient constraint?, *Commun. Partial Diff. Equations*?,4, No. 5, 555-572 (1979). · [Zbl 0448.35036](#) · [doi:10.1080/03605307908820103](#)
- [5] M. Wiegner, ?The $C^{1,1}$ -character of solutions of second-order elliptic equations with gradient constraint?, *Commun. Partial Diff. Equations*,6, No. 3, 361-371 (1981). · [Zbl 0458.35035](#) · [doi:10.1080/03605308108820181](#)
- [6] J.-M. Bony, ?Principe du maximum dans les espaces de Sobolev?, *C. R. Acad. Sci. Paris*,265 A333-A336 (1967). · [Zbl 0164.16803](#)

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