

# **The unique solvability of a certain nonlocal nonlinear problem with a spatial operator strongly monotone with respect to the gradient**

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## **Abstract**

We consider a nonlinear degenerate parabolic equation whose spatial operator depends on a nonlocal characteristic of the solution. We prove the uniqueness of the solution in the class of vector-valued functions that take on values in Sobolev spaces. © 2012 Allerton Press, Inc.

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## **Keywords**

Monotone operator, Nonlocal operator, Parabolic equation, Uniqueness