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BMO regularity for asymptotic parabolic systems with linear growth. (English)

Zbl 1363.35018
Differ. Integral Equ. 28, No. 11-12, 1173-1196 (2015).

In this paper the author proves local regularity for the spatial gradient of a weak solution to the system of fully nonlinear parabolic equations under the assumption that the principal part satisfies suitable growth conditions at infinity. The regularity result is obtained within the framework of Campanato function spaces. The method of the proof is based on a suitable reformulation of our problem in terms of a perturbation of the regular system and comparison of a solution to the solution of the regular problem.

Reviewer: Daniel Ševčovič (Bratislava)

MSC:

35B20 Perturbations in context of PDEs
35K59 Quasilinear parabolic equations

Keywords:

nonlinear parabolic systems; regularity; local estimates; Campanato spaces