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GLOBAL EXISTENCE OF SOLUTIONS TO PARABOLIC-PARABOLIC KELLER-SEGEL SYSTEM IN BETWEEN TWO CRITICAL EXPONENTS

Yoshifumi Mimura
Department of Mathematics, College of Humanities & Sciences, Nihon University
3-25-40 Sakurajosui Setagaya-ku Tokyo 156-8550, Japan
(E-mail: mimura.yoshifumi@nihon-u.ac.jp)

Abstract. The global existence of solutions to a degenerate Keller-Segel system of parabolic-parabolic type is considered, under certain smallness conditions of initial functions. The exponent is chosen in between critical cases and sufficient condition for the global existence of solutions are already known by Kimijima, Nakagawa and Ogawa in 2015 for the parabolic-elliptic case. Their result is extended to parabolic-parabolic case by applying the minimizing movement scheme.

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