

# Maximum principle and Keller-Osserman theorem revisited

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We establish that the monotonicity assumption can be removed in the framework of two celebrated results in nonlinear analysis. We are first concerned with the general maximum principle of Patrizia Pucci and James Serrin, which extends the classical Hopf and Vazquez comparison principles. Next, we consider the Keller-Osserman theorem, which characterizes the existence of singular solutions with boundary blow-up for logistic-type equations. Some open problems are given in the final part of this talk.