LIOUVILLE-TYPE THEOREMS AND SINGULARITIES

PAVOL QUITTNER

We will survey several important Liouville-type theorems and their applications in the study of singularities or regularity of solutions of various elliptic and parabolic problems (including reaction-diffusion equations and systems, Navier-Stokes equations, and problems with nonlinear boundary conditions). We will also formulate some conjectures and open questions.

DEPARTMENT OF APPLIED MATHEMATICS AND STATISTICS, COMENIUS UNIVERSITY, MLYNSKÁ DOLINA, 84248 BRATISLAVA, SLOVAKIA E-mail address: quittner@pc2.iam.fmph.uniba.sk