

Blowup of solutions to nonlinear hyperbolic equations : a survey of recent results

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We review the blowup of classical solutions to nonlinear hyperbolic equations, distinguishing the three levels of investigation : construction of examples, a priori analysis of solutions, prediction from the Cauchy data. We also distinguish the semilinear cases from the quasilinear cases : for the first, we study the maximal influence domain and its geometry ; for the second, we insist on the new phenomenon, namely the focusing of characteristics. We also mention a number of open questions.

