Blow-up of Solutions for the Damped Boussinesq Equation

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We consider the blow-up of solutions as a function of time to the initial boundary value problem for the damped Boussinesq equation. Under some assumptions we prove that the solutions with vanishing initial energy blow up in finite time.

Key words: Damped Boussinesq Equation; Blow-up of Solutions; Initial Boundary Value Problems;
Sobolev-Poincaré Inequality; Hölder Inequality.