

## عنوان مقاله:

VOLUME OF FLUID SIMULATION INVESTIGATIONS ON BUBBLE BURSTING AT A FREE SURFACE

## محل انتشار:

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## خلاصه مقاله:

This paper investigates the volume of fluid model in order to simulate bubble bursting at free surface. Transient conservation equations of mass and momentum with consideration of tension and gravitational force effects were solved. The simulation results of bubble rising at stagnant liquid were validated with numerical and experimental results of literature where the agreement was good. A single gas bubble with constant density and viscosity was released in stagnant liquid to reach to a free surface of the gas properties and bursting. The simulations were performed in a two-dimensional Cartesian coordinate system and indicated that volume of fluid method is a suitable approach in order to simulate collapsing bubbles at free surfaces. However, volume of fluid technique could be developed in order to increase bubble behavior at free surfaces.

## کلمات کلیدی:

Bubble bursting, Free surface, Simulation, Two-phase flow, Volume of Fluid

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/271068>

