

Abstract Submitted  
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**Bernoulli Suction Effect on Soap Bubble Blowing?** JOHN DAVIDSON, SANGJIN RYU, University of Nebraska-Lincoln — As a model system for thin-film bubble with two gas-liquid interfaces, we experimentally investigated the pinch-off of soap bubble blowing. Using the lab-built bubble blower and high-speed videography, we have found that the scaling law exponent of soap bubble pinch-off is  $2/3$ , which is similar to that of soap film bridge. Because air flowed through the decreasing neck of soap film tube, we studied possible Bernoulli suction effect on soap bubble pinch-off by evaluating the Reynolds number of airflow. Image processing was utilized to calculate approximate volume of growing soap film tube and the volume flow rate of the airflow, and the Reynolds number was estimated to be 800-3200. This result suggests that soap bubbling may involve the Bernoulli suction effect.

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