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Partial coalescence of soap bubbles DANIEL M. HARRIS, UNC Chapel Hill, GIUSEPPE PUCCI, University of Calabria, JOHN W. M. BUSH, MIT — We present the results of an experimental investigation of the merger of a soap bubble with a planar soap film. When gently deposited onto a horizontal film, a bubble may interact with the underlying film in such a way as to decrease in size, leaving behind a smaller daughter bubble with approximately half the radius of its progenitor. The process repeats up to three times, with each partial coalescence event occurring over a time scale comparable to the inertial-capillary time. Our results are compared to the recent numerical simulations of Martin and Blanchette [Phys. Fluids **27**, 012103 (2015)] and to the coalescence cascade of droplets on a fluid bath.

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