

TEXAS  STATE
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Math Colloquium

Soap Bubbles and Mathematics

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photo by Jeff Bauer of Citco

Abstract:

A round soap bubble provides the least-perimeter way to enclose a given volume of air, as was proved by Schwarz in 1884. Similarly, the familiar double bubble that forms when two soap bubbles come together is the least-perimeter way to enclose and separate two given volumes of air, as my collaborators and I proved in 2000. Many similar questions remain open, and recent progress includes work by undergraduates.

The show will include a little guessing contest with demonstrations, explanations, and prizes.

Junior and senior math majors welcome.