Double Bubbles in R^n and Other Spaces

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Thursday, January 27, 2005
L02 Carson Hall, 4:00 pm
(Tea 3:30 pm Math Lounge)

Abstract

In 1884 Schwarz proved that a single round soap bubble provides the least-area way to enclose a given volume of air. In 2002 Hutchings, Morgan, Ritoré, and Ros proved that the familiar double soap bubble provides the least-area way to enclose and separate two given volumes. We'll discuss results and open questions in other spaces from R^n to spheres S^n, hyperbolic space H^n, Gauss space, and tori, including work by undergraduates. No prerequisites; undergraduates welcome.

This talk should be accessible to undergraduates.

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