Willmore Surfaces

By Bennett Palmer

The Willmore functional assigns to a surface in $\mathbb{R}^3$ the $L^2$ norm of its mean curvature. This functional was introduced by Sophie Germain in 1811 in her investigation of the Chladni plates. In this talk, we will discuss the history and motivation for studying the Willmore functional. We will also briefly discuss the solution by Marques and Neves (2012), of the Willmore Conjecture, which states that the minimum value of this functional among tori is $2\pi^2$. The talk will be elementary and it is meant for a general audience.

November 3, 2017
4:00 pm
PS 308

For colloquium attendees, there will be light refreshments in PS 317 at 3:30