Department of Mathematics Seminar

Functions of Least Gradient and Minimal Laminations

By

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Abstract: A lamination is a closed subset of a manifold M which has been partitioned into submanifolds of M. I will discuss laminations of locally area-minimizing submanifolds, arising as the limit of solutions of the p-Laplacian, the PDE $\nabla \cdot (|\nabla u|^{p - 2} \nabla u) = 0$, as $p \to 1$ or $p \to \infty$. The limits as $p \to 1$ are called "functions of least gradient" and I shall show that locally, they are the same thing as minimal laminations of codimension 1. As a consequence, we shall see that certain topological conditions on M imply the existence of many uniquely ergodic minimal laminations.

Date: February 19, Wednesday, 2025
Time: 5:00 PM (Turkey)
Place: ZOOM
This is an online seminar. To request the Zoom link, please send a message to turker.ozsari@bilkent.edu.tr