Insalate di Matematica *presents*

In Search of (Lost) Positivity in Elliptic PDEs



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Abstract

What happens to a membrane or thin plate when they are subjected to a weight? Do they always bend downwards regardless of their shape? What happens if the weight is concentrated at a single point? In this talk we will review some well-known and lesser-known results about positivity preserving in the context of elliptic PDEs, with a focus on the higher-order case.



Keywords:

elliptic equations \cdot biharmonic operator \cdot positivity \cdot Green function

"Obvious" is the most dangerous word in mathematics. - Eric Temple Bell

