Is Every Partial Differential Equation Solvable?
And what does this have to do with large matrices?

Professor Andras Vasy

Abstract

It was somewhat of a shock in the 1950s Hans Lewy gave an example of a linear PDE with non-singular coefficients which did not have solutions in any neighborhood of any point. I will explain what is behind Lewy’s example, and relate it to estimates for inverses of large non-self-adjoint matrices.