Title: Solution Space of PDE Systems

Abstract

It is a well-known result in ODEs that the solution space of a normal ODE of order $n$ has dimension $n$. If the same question is posed to PDEs, then the Cauchy-Kovalevskaya theorem tells us that a PDE with analytic coefficients has an infinite dimension solution space.

In this talk I will show you one of my undergraduate results concerning the dimension of solution space of systems of PDEs, that under some natural conditions a system of PDEs has a finite dimension solution space.

All are welcome.