Friedrichs system: a unified approach for studying various types of PDEs

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Abstract

The theory of abstract Friedrichs operators, introduced by Ern, Guermond and Caplain (2007), proved to be a successful setting for studying positive symmetric systems of first order partial differential equations (Friedrichs, 1958), nowadays better known as Friedrichs systems. The theory encompasses variuos types of PDEs, but the main motivation was to study the mixed-type equations.

The aim of this talk is to make the audience familiar with the theory of Friedrichs systems and briefly discuss the recent developments. At the end, possible research directions will be discussed.