

1052-35-331

Barbara Lee Keyfitz*, Department of Mathematics, The Ohio State University, 231 W 18th Avenue, Columbus, OH 43210. *Linear and Nonlinear Change of Type: A Review.*

This session explores recent progress in understanding systems of PDE that change type between elliptic and hyperbolic. As an introduction to the session, and to provide a reference to important work by contributors who could not attend or present their work, the speaker will give a brief history of the field, including some axes according to which research can be classified: model problems may have their origins in physics or geometry; the underlying problem may be steady or unsteady, linear or nonlinear; and the change of type may or may not be a manifestation of some well-known instability. In addition, research in the area is aimed at many possible outcomes, and uses a variety of interesting techniques. This talk will be a tutorial, intended to give some perspective to the rest of the session. (Received September 01, 2009)