1145-39-203 **M. R. S. Kulenovic***, Department of Mathematics, University of Rhode Island, Kingston, RI 02881, and **Orlando Merino**. *Invariant Curves for Planar Competitive and Cooperative Maps.*

In this talk we present results on the existence of invariant curves for planar maps that are monotone with respect to either the south-east or north-east ordering. Some of these curves are the stable or unstable manifolds of hyperbolic fixed points (saddle points) or non-hyperbolic fixed points, and are also the boundary of basins of attraction of such points. Invariant curves of maps in the form of stable, unstable and center manifolds appear in the earliest work on dynamical systems by Poincaré and Hadamard, where not only the existence but also methods for finding those manifolds were introduced. Poincaré used the method of undetermined coefficients while Hadamard used the method of successive approximations to solve locally functional equations for those manifolds in the plane. Their results were local and did not give any indications how to get the existence or an effective method of computation of global versions of these manifolds. Our results are global and provide the precise description of these manifolds. (Received August 19, 2018)