

MODEL THEORETIC PROPERTIES OF PSEUDO REAL CLOSED FIELDS.

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In this talk we will study the class of pseudo real closed fields (PRC-fields) from a model theoretical point of view. PRC-fields are a generalization of real closed fields and pseudo algebraically closed fields, where we admit having several orders. Prestel showed that the theory of PRC-fields can be axiomatized in the language of rings. We will explain some of the principal model-theoretic results of this theory, for example the form of the definable sets, the model-theoretic definable and algebraic closure, amalgamation of types and some new results obtained with Alf Onshuus and Pierre Simon about the definable groups.