

ORDERED FIELDS DENSE IN THEIR REAL CLOSURE AND DEFINABLE CONVEX VALUATIONS

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Abstract: In this work, we undertake a systematic model and valuation theoretic study of the class of ordered fields which are dense in their real closure. We apply this study to determine definable henselian valuations on ordered fields, in the language of ordered rings. In light of our results, we re-examine recent conjectures in the context of strongly NIP ordered fields. Joint work with Lothar Sebastian Krapp and Gabriel Lehericy.

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