II Joint Conference of the Belgian, Royal Spanish and Luxembourg Mathematical Societies
Logroño, June 6–8, 2016

Superrosy division rings

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In this talk we analyze superrosy division rings, i.e. division rings which admit a well-behaved ordinal valued rank function on definable sets that behaves like a rudimentary notion of dimension. Examples are the quaternions, superstable division rings (which are known to be algebraically closed fields [2, 1]) and more generally supersimple division rings which are commutative [3].

In the talk I shall present superrosyness as a common generalization of o-minimality and supersimplicity and then explain why any superrosy division ring has finite dimension over its center. This is a joint work with Nadja Hempel.

References

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