1127-03-378      **Nadja Hempel\*** (`nadja@math.ucla.edu`), Department of Mathematics, University of California, Los Angeles, CA 90095-1555, and **Daniel Palacin**. *Division rings with ranks.*

In this talk we analyze division rings which admit a well-behaved ordinal valued rank function on definable sets that behaves like a rudimentary notion of dimension. These are called superrosy division rings. Examples are the quaternions, any superstable division ring (which are known to be algebraically closed fields by a theorem of Macintyre/Cherlin-Shelah) and more generally supersimple division rings (which are commutative by a result of Pillay, Scanlon and Wagner). We show that any superrosy division ring has finite dimension over its center, generalizing the aforementioned results. This is a joint work with Daniel Palacin. (Received February 07, 2017)