

HERMITIAN K-THEORY FOR ∞ -CATEGORIES WITH DUALITY

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In my lectures I will introduce the notion of infinity categories with duality and define hermitian K-theory of those. My main focus will lie on explaining what is called the first and second hermitian recognition principle. Applying these yield from easily accessible input data infinity categories with a lot of structure, e.g. rig infinity categories with compatible duality, from which one obtains \mathbb{E}_∞ -structures on hermitian K-theory spectra. This is joint work with Hadrian Heine and Alejo Lopez-Avila. In the end I will define real K-theory for infinity categories with duality, which is ongoing joint work with Thomas Nikolaus.