

- GUNTER FUCHS, *Blurry HOD - a sketch of a landscape*.

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Classically, a set is ordinal definable if it is the unique object satisfying a formula with ordinal parameters. Generalizing this concept, given a cardinal κ , I call a set $<\kappa$ -blurrily definable if it is one of less than κ many objects satisfying a formula with ordinal parameters (called a $<\kappa$ -blurry definition). By considering the hereditary versions of this notion, one arrives at a hierarchy of inner models, one for each cardinal κ : the collection of all hereditarily $<\kappa$ -blurrily ordinal definable sets, which I call $<\kappa$ -HOD. In a ZFC-model, this hierarchy spans the entire spectrum from HOD to V .

The special cases $\kappa = \omega$ and $\kappa = \omega_1$ have been previously considered, but no systematic study of the general setting has been done, it seems. One main aspect of the study is the notion of a leap, that is, a cardinal at which a new object becomes hereditarily blurrily definable. The talk splits into two parts: first, the ZFC-provable properties of blurry HOD, which are surprisingly rich, and second, the effects of forcing on the structure of blurry HOD and the achievable leap constellations.