

The Quantization Principle

What prevents to have a unique context where all modalities would be defined ?
(this would be back to classical physics)

1. Within a given context, the modalities are mutually exclusive, i.e. if one of them is realized (or true), the other ones are not realized (or wrong). In a different context, there will be a different set of mutually exclusive modalities.

2. Modalities taken from two different contexts are generally « non mutually exclusive », or « incompatible », i.e. if one one of them is realized, one cannot tell whether the other ones are realized or not. Incompatible modalities are « non-classical » : classically, it should be possible to distinguish them by making more measurements, i.e. by extending the context.

3. Quantization principle : the number N of mutually exclusive modalities is a property of the quantum system, and it is independant of the context.