

**Spontaneously broken symmetries in nuclear systems —  
are there any?**

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Spontaneous symmetry breaking is a general principle, that constitutes the underlying concept of a vast number of physical phenomena ranging from ferromagnetism and superconductivity in condensed matter physics to the Higgs mechanism in the standard model of elementary particles.

In this introductory lecture I would like to remind the basic definitions and terminology associated with the symmetry breaking in physical systems and discuss their usefulness in the case of atomic nuclei.