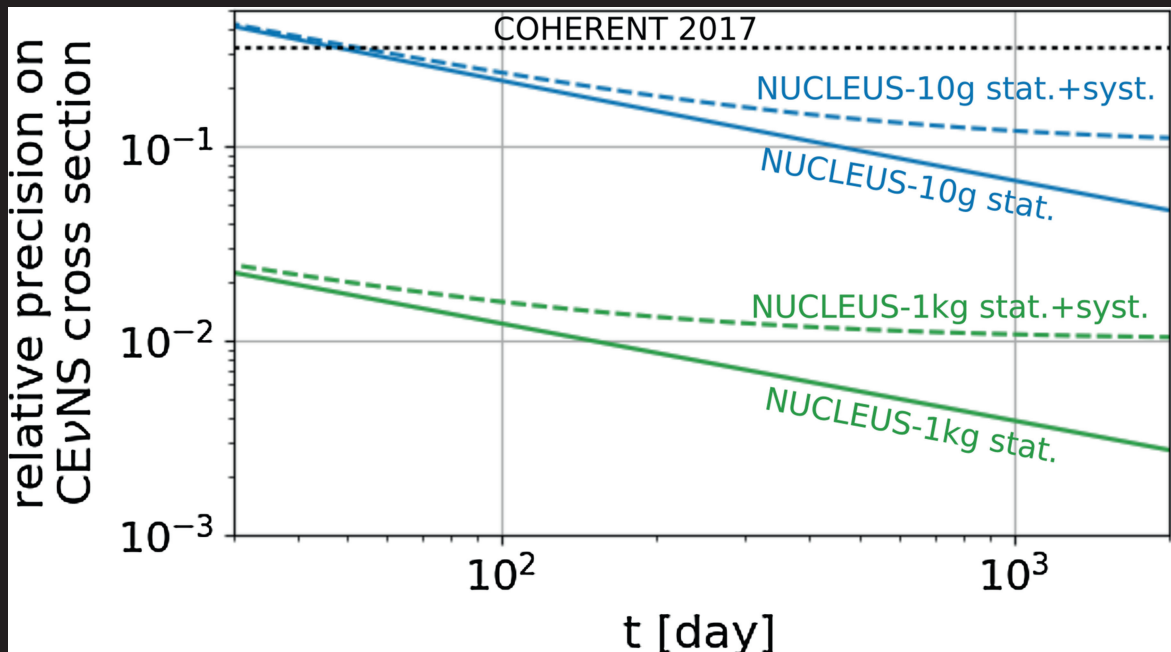




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Particles and Fields



Relative precision of the CEνNS cross-section measurement as a function of live time for the experimental stages NUCLEUS-10g (composed of CaWO_4 and Al_2O_3 detectors), and NUCLEUS-1kg (modeled as a Ge detector array).

The solid lines show statistical uncertainties (one standard deviation) only, for the dashed lines a systematic uncertainty of 10% (1%) is added in the case of NUCLEUS-10g (NUCLEUS-1kg). The dotted horizontal line indicates the 32% precision achieved by COHERENT (adding in quadrature the 16% experimental uncertainty and the 28% uncertainty of the rate prediction).

From G. Angloher, F. Ardellier-Desages and A. Bento et al.

Exploring CEνNS with NUCLEUS at the Chooz nuclear power plant.