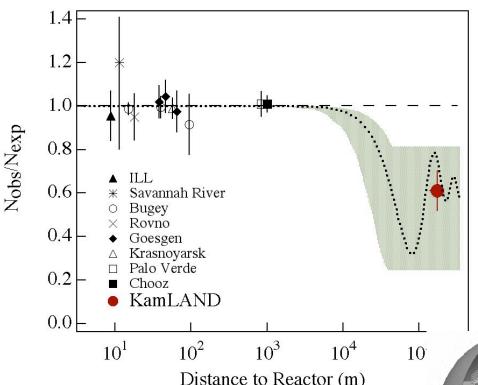
## First Evidence for Reactor Anti-Neutrino Disappearance





## **50 Years of Reactor Neutrino Physics**

1953 First reactor neutrino experiment

**1956** "Detection of Free Antineutrino", F. Reines and C.L. Cowan

□ Nobel Prize in 1995

**2002** "First Evidence for Reactor Neutrino Disappearance at KamLAND"

Studies reactor neutrinos with a baseline of  $\sim$  180 km

Inverse □-decay on protons

$$\prod_{e} + p \prod_{e^+} + n$$

