



Contribution ID: 15

Type: **Contributed talk**

Latest results from the Neutrinos-Angra Project

Monday 28 October 2024 16:25 (20 minutes)

The Neutrinos Angra Experiment, a ton-scale gadolinium-loaded water Cherenkov detector, is located approximately 30 meters from the Angra-II power plant in Angra dos Reis, Brazil. Its primary objective is to detect electron antineutrinos produced by the reactor and demonstrate the feasibility of using antineutrino detectors for real-time reactor monitoring with a surface detector. This effort aligns with the International Atomic Energy Agency's (IAEA) mission to explore innovative technologies for nonproliferation safeguards. Surface operation presents challenges, such as high background noise, which necessitates the development of highly sensitive, compact detectors. These conditions make the Angra experiment an excellent platform for advancing detection techniques and gaining expertise in cutting-edge technologies and analysis methods. This presentation will discuss the latest results, derived from an extended dataset analyzed using Bayesian methods.

Authors: Prof. RIBEIRO, Dion (UFBA); CHIMENTI, Pietro (Universidade Estadual de Londrina (UEL))

Co-authors: Prof. KEMP, Ernesto (Universidade Estadual de Campinas); Prof. GUEDES, Germano (UEFS); Dr LIMA JR., Herman (CBPF); Prof. PEPE, Iuri (UFBA); Prof. DOS ANJOS, João Carlos (CBPF); Dr GOMES GONZALES, Luis Fernando (Universidade Estadual de Campinas); Prof. NÓBREGA, Rafael (UFJF); Mx SANTOS, Willian (Universidade Estadual de Campinas)

Presenter: CHIMENTI, Pietro (Universidade Estadual de Londrina (UEL))

Session Classification: Contributed talk