



Contribution ID: 203

Type: **Poster**

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Wednesday 21 February 2018 18:30 (1 minute)

The interaction rate of hypothesized dark matter particles in an Earth bound detector is expected to undergo an annual modulation due to the planet's orbital motion. The DAMA/LIBRA experiment has observed such a modulation with high significance in an array of scintillating NaI(Tl) crystals. This claim is still unverified inasmuch as the other experiments involved in this research use different dark matter targets and cannot be compared with DAMA/LIBRA in a model-independent way. The SABRE experiment seeks to provide a much-needed model-independent test of the DAMA/LIBRA modulation by developing highly pure NaI(Tl) crystal detectors with very low radioactivity and deploying them in an active veto detector that can reject key backgrounds in a dark-matter measurement. The final layout of SABRE will consist in a pair of twin detectors at LNGS (Laboratori Nazionali del Gran Sasso, Italy) and SUPL (Stawell Underground Physics Laboratory, Australia). The combined analysis of data sets from the two hemispheres will allow identifying any terrestrial contribution to the modulating signal. In this talk, the status report of the SABRE proof of principle activities at LNGS are presented together with the results of Monte Carlo simulations and the expected sensitivity.

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Session Classification: Poster Session