

## Atmospheric transport study of Japan noble gas systems

Understanding radioxenon backgrounds is of paramount importance in interpreting IMS xenon data, specifically in screening out uninteresting sources and detecting/locating interesting sources. We simulated atmospheric transport near JPX38 (Takasaki, Japan) to determine the kinds of impact that the limited term regional network of systems there could have on interpreting JPX38 data, even after the temporary network is removed. The key is to simulate detection of known backgrounds and possible interesting sources, then compare to measured backgrounds to extrapolate how well a future unknown xenon source could be detected, located, and nuisance backgrounds screened out.

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