Non-proliferation and reactor monitoring

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Since the pioneering work of Adam Bernstein et al. about the reactor monitoring with anti-neutrinos, a lot of proposals have been made around the world. I will briefly review the current status of non-proliferation and reactor monitoring using anti-neutrino detection. Detectability for the directionality and fuel composition are interesting points for this technology. Many projects are trying to detect reactor neutrinos more accurately with more compact design and are crossly related with the recent short baseline neutrino oscillation experiments. I will review the current experiments, Nucifer, Solid, Prospect, and NuLat etc. Specially, we will present the new data of NEOS short baseline experiment.